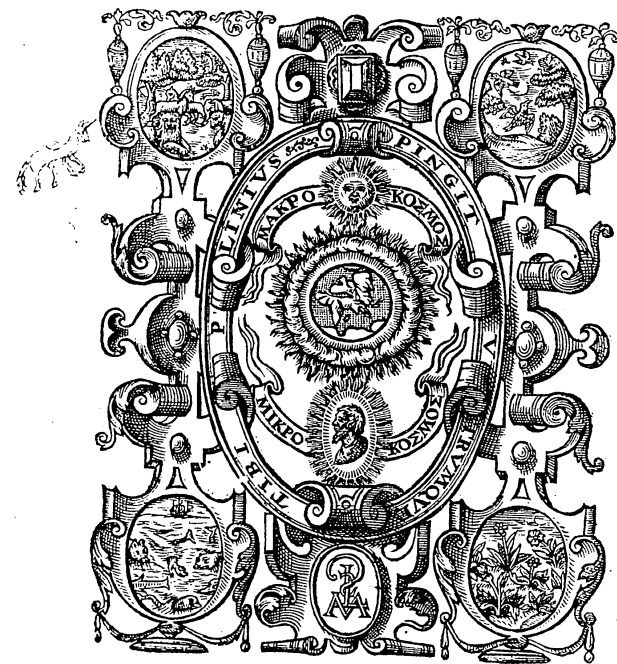


Pliny # *Grey*
**THE
HISTORIE
OF THE WORLD:**

Commonly called,
**THE NATVRALL HISTORIE OF
C. PLINIUS SECVNDVS.**

*Translated into English by PHILIP HOLLAND
Doctor of Physicke.*

The first Tome.



LONDON,
Printed by *Adam Islip*, and are to be sold by *Iohn
Grismond*, in *Ivy-lane* at the Signe of
the Gun. 1635.

Nov. 1912
27659



TO THE RIGHT HONOURABLE
SIR ROBERT CECIL KNIGHT, PRINCIPALL
SECRETARIE TO THE QUEENS MAIESTIE,
MASTER OF COVRT OF THE WARDS AND LIVERIES,

Chancellor of the Vniuersitie of Cambridge, and one of her

Maiesties most Honourable Private Counsell.



*He friendly acceptance which T. Livius of Padua hath found in this Realme, since time hee shewed himselfe in English weede vnto her sacred Maiestie, hath trained over vnto him his neighbour Plinius Secundus, from Verona. Whome, being now arraied in the same habit, yet fearefull to set foot forward in the forreine ground, without the countenance of some worthie personage, who might both giue him his hand at his first entrance, in token of welcome, and also grace him afterwards with a fauourable regard to win acquaintance, I humbly present vnto your Honour. For considering the qualitie of the man, a Philosopher discoursing so deeply in all Learning, where may hee looke for better acceptance than of him, who is most iustly styled, Patron of Learning? Which dignitie conferred of late vpon your H. by the generall suffrages of a Noble Vniuersitie (and that for your singular insight in all literature) as a complement to those high places whereunto the fauour of a most prudent and iudicious Princeesse hath aduanced you, and the same correspondent to the same wisdom, justice, and eloquence, which concurre in your person, like the seuerall beauties of the Rubie, Amethyst, and Emeraud meeting in one faire Opal, giueth a louely lustre to your other titles, no lesse, than if the nine Muses and Apollo, represented naturally in that rich Agat of K. Pyrrhus, were inserted therein. Now if, as wee read of * Alexander and * Demetrius, two mightie monarchs, who amid their desseines and making conquests and besieging cities, beheld otherwhiles Apelles and Protogenes how they handled their pencils; it may please your Honour betweene the managing of State-affaires vnder her Maiestie, to cast your eie eftswoones vpon Plinie for your recreation, and see how liuely hee depeincteth, nor Venus Anadyomene, drawne haply to the patterne of Campaspe a courtizan; nor Ialysus with his dog, in which picture, fecit Fortuna naturam; but euen Nature her selfe, the immediat mother and nource of all things vnder the Almighty; I shall not onely thinke him patronized thereby and sufficiently commended to the world, but also acknowledge my selfe much deuoted to your H. and bound for euer to pray for the encrease thereof, with long life and true happinesse.*

* Magnus

* Polyorctes

Your Honours most readie at command,

Philemon Holland.



The Preface to the Reader.

If Appie were they in times past reputed (and not vnworthily) who had that gracious and heavenly gift, *aut facere scribenda, aut scribere legenda*: that is to say, either to do such things as deserued to bee written, or to write that which was worth the reading. Those that could not attaine to these two branches of felicitie, and yet vtterly misliked idlenes, contented themselves in a third degree, namely to take in hand the old workes of their ancients, and by new labours to immortalize their memorie. Thus *Nicophanes* (a famous painter in his time) gaue his mind wholly to antique pictures, partly to exemplifie and take out their patternes after that in long continuance of time they were decayed; and in part to repaire and reforme the same, if haply by some iniurious accident they were defaced. The ingenious mind of this artizan thus deuoted to antiquitie, as I doe highly commend; so I cannot chuse but embrace his policie, seeking hereby to auoid the enuie and reprooofe of others. In this number I must range those learned men in seuerall ages, who to illustrate the monuments left by former writers, haue annexed vnto them their Commentaries; to saue them entire and vncorrupt, haue set thereto iudiciall obseruations; and to publish them for a generall benefit of posteritie, haue translated the same into their mother language. As for my selfe, since it is neither my hap nor hope to attaine to such perfection, as to bring forth somewhat of mine owne which may quit the paines of a reader; and much lesse to performe any action that might minister matter to a writer; and yet so farre bound vnto my natiue countrey and the blessed state wherein I haue liued, as to render an account of my yeeres passed and studies employed, during this long time of peace and tranquillitie, wherein (vnder the most gracious and happy gouernement of a peerelesse Princeesse, assisted with so prudent, politique, and learned Counsell) all good literature hath had free progresse and flourished, in no age so much: mee thought I owed this dutie, to leaue for my part also (after many others) some small memoriall, that might giue testimonie another day what fruits generally this peaceable age of ours hath produced. Endeauoured I haue therefore to stand in this third ranke, and bestowed those houres which might be spared from the practise of my profession, and the necessarie cares of this life, to satisfie my countymen now liuing, and to gratifie the age ensuing, in this kinde. Like as therefore I haue travelled already in *Titus Livius* a renowned Historiographer, so I haue proceeded to deale with *Plinius Secundus* the elder, as famous a Philosopher. Now albeit my intention and only scope was, to doe a pleasure vnto them that could not read these authours in the original: yet needs I must confesse that euen my selfe haue not only gained thereby encrease of the Latine tongue (wherein these workes were written) but also growne to further knowledge of the matter and argument therein contained. For this benefit wee reape by studying the bookes of such ancient authours,

That

The Preface to the Reader.

That the oftner we read them ouer, the more still we find and learne in them: as beeing so judiciously and pithily penned, that, as the Poet said very well, *decies repetita placent*. Well may the newest songs and last deuised plaies delight our ears at the first, and for the present rauish our senses: like as horarie and earely Summer fruits content our tast and please the appetite: but surely it is antiquitie that hath giuen grace, vigor, and strength to writings; euen as age commendeth the most generous and best wines. In which regard, and vpon this experience of mine owne, I nothing doubt but they also whom I might iustly feare as hard censours of these my labours, will not onely pitie mee for my paines, but also in some measure yeeld mee thankes in the end, when either by the light of the English (if they be young students) they shall bee able more readily to goe away with the darke phraze and obscure constructions of the Latine; or (being great schollers and taking themselves for deepe Critickes) by conferring the one with the other, haply to espie wherein I haue tripped, they shall by that meanes peruse once againe, and consequently gather new profit out of that authour whom peraduenture they had laid by for many yeers as sufficiently vnderstood. When some benefit (I say) shall accrew vnto them likewise by this occasion, I lesse dread their fearefull doome, to which so wilfully I haue exposed my selfe. Well I wist, that among the Athenians, order was taken by law, That an enterlude newly acted should be heard with silence and applause: which custome, as it was respectiue and fauourable to the first endeauours of the actors, so it implied an ineuitable danger of hissing out an vtter disgrace, if afterwards they chanced to misse and faile in their parts. Hauing shewed my selfe once before vpon the stage, presuming vpon this priuiledge and the curtesie of the theatre, I might haue now sitten still and so rested: In mounting vp thus soon againe, I may seeme either in the assured confidence of mine owne worthinesse, to proclaim a challenge to all mens censures; or else vpon a deepe conceit of some generall conuiniencie make reckoning of an extraordinarie and wonderfull fauor. But as the choise that I haue made to publish the monuments of other men, without fathering anything of mine owne, doth excuse and acquit mee for the one; so the froward disposition of carpers in these daies wherein wee liue, will checke the other. Howbeit considering such paines vndergone by me one man, for the pleasure of so many; so much time spent of mine, for gaining time to others; and some opportunities of privat lucre ouerslipped and lost, to win profit vnto all; I feare not but these regards may deserue a friendly acceptance, & counterweigh all defects and faults escaped, whatsoever. The persuasion hereof, but principally the priuie of my affectionat loue vnto my countrey (which assured me of a safe-conduct to passe peaceably through their hands who are of the better sort and well affected) induced mee to a resolution not onely to enter vpon this new taske, but also to breake through all difficulties, vntill I had brought the same, if not to a full and absolute perfection, yet to an end and finall conclusion. Besides this naturall inclination and hope which carried mee this way, other motiues there were that made saile and set mee forward. I saw how diuerse men before me had dealt with this authour, whiles some laboured to reforme whatsoever by iniurie of time was growne out of frame: others did their best to translate him into their own tongue, and namely, the Italian and French: moreover, the Title prefixed thereto so vniuersall as it is, to wit, *The Historie of the World*,

or

The Preface to the Reader.

or Reports of Nature, imported (no doubt) that hee first penned it for the generall good of mankind. Ouer and besides, the Argument ensuing full of varietie, furnished with discourses of all matters, not appropriate to the learned only, but accommodat to the rude peisant of the countrey; fitted for the painefull artizan in towne and citie: pertinent to the bodily health of man, woman, and child; and in one word, suiting with all sorts of people living in a societie and commonweale. To say nothing of the precedent giuen by the authour himselfe who entitled the same, not with any affected phrase, but sorting well with the capacitie euen of the meanest and most vnlettered: who also translated a good part thereof out of the Greeke. What should I alledge the example of former times, wherein the like hath euermore been approued and praesised? Why should any man therefore take offence hereat, and enuie this good to his naturall countrey, which was first meant for the whole world? and yet some there be so grosse as to giue out, That these and such like bookes ought not to bee published in the vulgar tongue. It is a shame (quoth one) that *Linie* speaketh English as hee doth: Latinitis onely are to bee acquainted with him: as Who would say, the fouldiour were to haue recourse vnto the vniuersitie for militarie skill and knowledge: or the scholler to put on armes and pitch a campe. What should *Plinie* (saith another) bee read in English, and the mysteries couched in his bookes divulged: as if the husbandman, the mason, carpenter, goldsmith, painter, lapidarie, and engrauer, with other artificers, were bound to seeke vnto great clearkes or linguists for instructions in their seuerall arts. Certes, such *Momi* as these, besides their blind and erroneous opinion, thinke not so honourably of their natiue countrey and mother tongue as they ought: who if they were so well affected that way as they should be, would with rather, and endeauiour by all meanes to triumph now ouer the Romans in subduing their literature vnder the dent of the English pen, in requitall to the conquest sometime ouer this Island, atchieued by the edge of their sword. As for our speech, was not Latine as common and naturall in Italie, as English here with vs. And if *Plinie* faulted not but deserued well of the Romane name, in laying abroad the riches and hidden treasures of Nature, in that Dialect or Idiome which was familiar to the basest clowne: why should any man be blamed for enterprising the semblable, to the commoditie of that countrey in which and for which he was borne. Are wee the onely nation vnder heauen vnworthie to tast of such knowledge? or is our language so barbarous, that it will not admit in proper tearmes a forreine phrase? I honor them in my heart, who hauing of late daies troden the way before mee in *Plutarch*, *Tacitus*, and others, haue made good prooffe, that as the tongue in an Englishmans head is framed so flexible and obsequent, that it can pronounce naturally any other language; so a pen in his hand is able sufficiently to expresse Greeke, Latine, and Hebrew. And my hope is, that after mee there will arise some industrious *Flarvij* who may at length *cornicum oculos configere*. For if my selfe, a man by profession otherwise carried away, for gifts farre inferiour to many, and wanting such helps as others bee furnished with, haue in some sort taught those to speake English who were supposed very vntoward to bee brought vnto it; what may be expected at their hands, who for leisure may attend better; in wit are more pregnant; and being graced with the opinion of men and fauour of the time, may attempt what they will, and effect whatsoeuer

The Preface to the Reader.

ver they attempt with greater felicitie? A painfull and tedious traualle I confesse it is; neither make I doubt but many doe note mee for much follie in spending time herein, and neglecting some compendious course of gathering good, and pursuing vp pence. But when I looke backe to the example of *Plinie*, I must of necessity condemne both mine owne sloth, and also reprove the supine negligence of these daies. A courtiour he was, and great fauourit of the *Vespasians* both father and sonne: an oratour besides, and pleaded many causes at the barre: a martiall man withall, and serued often times a leader and commander in the field: within the citie of Rome hee mannaged civile affaires, and bare honourable offices of State. Who would not thinke but each one of these places would require a whole man? and yet amid these occasions wherewith he was possessed, he penned Chronicles, wrote Commentaries, compiled Grammaticall treatises, and many other volumes which at this day are vtterly lost. As for the Historie of Nature now in hand, which sheweth him to be an excellent Philosopher and a man accomplished in all kinds of literature (the onely monument of his that hath escaped all dangers, and as another *Palladium* beene referued entire vnto our time) wherein hee hath discoursed of all things even from the starrie heauen to the centre of the earth; a man would marveile how hee could possibly either write or doe any thing else. But considering the agilitie of mans spirit alwaies in motion: an ardent desire to benefit posteritie, which in these volumes hee hath so often protested; his indefatigable studie both day and night, euen to the iniurie of nature, and the same continued in euerie place, as well abroad as within-house; in his iourney vpon the high way, where his manner was to read and to indite; in his ordinarie passage through the streets betweene court and home, where he gaue himselfe no rest, but either read, or else found his notarie worke to write; and for that purpose rode vsually in an easie litter, with the said Notarie close by his side: lesse wonder it is, that hee performed his service to Prince and state according to his calling; and withall deliuered vnto posteritie so many fruits of wit and learning. For what is not the head of man able to compass? especially making saile with a feruent desire and resolution to see an end, and besides taking the vantage of all moments, and losing no time, whereof hee was *unus omnium parcissimus*. Touching his affection to search into the secrets of Nature, it was that and nothing else that shortened his daies, and hastened his vntimely death: for hauing liued not much aboue the middle age of man, desirous he was to know the reason; Why the hill *Nesuvius* burned as it did? and approached so neare, that with the strong vapours and smoake issuing from thence, his breath was suddenly stopped, and himselfe found dead in the place: a man worthie to haue liued for euer. What remaineth now, but onely to recommend vnto my countrimen this worke of his (which for mine owne part I wish to bee immortal) were it not for one scruple to bee cleared, which at the first troubled my selfe a little, and might peraduenture otherwise offend some readers. In attributing so much vnto Nature, *Plinie* seemeth to derogat from the Almighty God, to him *Dei maiestas*; and therefore dangerous (saith one) to bee divulged. Farre be it from mee, that I should publish any thing to corrupt mens manners, and much lesse to preiudice Christian religion. After conference therefore with sundriediuiues about this point, whom for their authoritie I reuerence; whose learning I honor and embrace; and in whom for iudgement & sincérité of religion I rest,

The Preface to the Reader.

I rest, confirmed I was in my first purpose, and resolved to finish that which I had begun, namely, not to defraud the world of so rich a gem, for one small blemish appearing therein. And that it may appeare how I did not abound in mine owne sence, but had regard as well to satisfie the conscience of others as mine owne, I haue thought good to annex immediately hereunto, in manner of a Collarie, the opinion of one graue and learned preacher concerning this doubt, as it was deliuered vnto mee in writing; which for that it is grounded vpon sufficient reasons, and according with the iudgement of the rest, the lesse I respect the rash projects of some fantasticall spirits: nothing doubting but the same will settle the minds of the weake, and free my labours from the taint of irreligion.



The copie of the said Letter, written as touching the Translation of Plinie.

MI beloued, in twentie yeeres and better, so many tokens of our mutuall loue passing betweene vs, I need not now to professe my affection to your selfe; and my daily conuersing with you, hath yeelded my approbation of your tedious labor in translating Plinie. These few lines therefore shall onely serue to witnesse vnto others the deserued account which for your learning I haue alwaies made of you, and my conceit of this your trauaile in opening to your countrymen the treasure of Nature: therein to see and to admire the wisdom, power, and the goodnessse of the onely true God, the Framer of Nature. I am not of their minds, who desire that all humane learning in Arts and Naturall Philosophie should be reserved vnder locke and key of strange language, without the which no other man should haue accessse vnto it: For as such knowledge is a branch of that excellencie wherein man was formed, so the repaire thereof (though it bee not the chiefe) is yet a thing vnworthily neglected, as well in regard of our owne comfort therein gained, as for the glory of God thereby promoted. And it was the wisdom and provident hand of the All-sufficient, so to guide the wise heathen in Arts and Nature, that they should publish such their skill vnto their countrymen in mother tongue: partly to correct the rudenesse which is in ignorance, and in part to leaue them the more inexcusable: In which regard, they may in some sort be called, The Prophets and Teachers of the heathen. And though Plinie and the rest were not able by Natures light to search so far as to find out the God of Nature, who sitteth in the glorie of light which none attaineth, but contrariwise in the vanitie of their imagination bewrayed the ignorance of foolish hearts, some doting vpon Nature her selfe, and others vpon speciall creatures as their God: yet feare we not that Christians in so cleare light should be so farre be witched by such blind teachers, as to fall before those heathen Idols. Yea, though some of them (as namely Plinie) haue spoken dishonourably of the onely true God and of his providence, because they knew him not; which speeches (if it might stand with the lawes of Translation) I could wish were utterly omitted; yet may we hope that Christian men so long taught by the light of grace out of the holy word of God, will no lesse therefore giue him his deserued honour, than when they doe in like sort heare the blasphemie of Sanneherib king of Asbur, who sent to raile vpon the liuing God. I feare not the corrupting of vnstable minds any thing so much by these foolish Gentiles which are without, as by the deceitfull spirit of error speaking in the mouth of men within: such I meane as are within the bosome of the Church. These are the foxes by whom we feare the spoile of the Lords vines when as the grapes first begin to cluster: for whose taking I desire that all Gods husbandmen would be more carefull. As for the speeches of these blind heathen, the true Christian may well thereby be provoked to extoll the mercie of God, who sitteth in so glorious a light as hath dashed the sharpest sight of Nature; but for our comfort hath put a vaile vpon his glorie, and by his grace hath so cleared

The Preface to the Reader.

cleared the eye of our understanding, that we might see his face in his beloved, and know him to be the onely true God, and his blessed providence upon all his creatures. And when they shall perceiue that the wisest cleark in naturall skill could not learne by the booke of heauen and earth to know their Maker, whose glorie they declare, and handworkes set out; nor who it was that framed Nature, when by his word he first created them in such excellencie, and then, by his blessing gaue, and by his providence working all in all, doth yet maintaine such an operative power, as by the which they are still continued in their kindes: nor how it came to passe that Nature lost her excellencie in all creatures, and her power vnto good was not onely weakened (whence we see her faile in many of her purposes) but also peruerued vnto euill; then (I say) they will the more be stirred vp by Gods grace to make reuerent account of the holy Scriptures, which God in rich mercie hath giuen to them to be a light in all things for to direct them through the errors in Natures blindnesse, and to bring them to the beauenly Jerusalem and happie world of all the holie where he dwelleth, whom they worship in vnitie and trinitie. Proceed then my beloved friend to bring vnto the birth your second labour; whereof I pray that God may haue honour in the praise of his works throughout nature, and wish you comfort in good acceptance with the reader, and your countrie vse and pleasure in the skill thereof. Vnto him which onely hath immortalitie and dwelleth in that light which none attaineth, to God onely wise be all honour and glorie. Iamij xij. 1601.

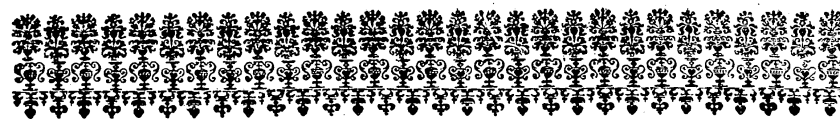
Your louing friend in the Lord,

H. F.

Plal. 19.
Rom. 1.
Gen. 1.

Gen. 2.
Rom. 8.

Plal. 19.
& 147.



THE FIRST BOOKE OF THE HISTORIE OF NATVRE, WRITTEN BY C. PLINIUS SECVNDVS. *Prey*

The Preface or Epistle Dedicatorie to * Prince Vespasian, his [friend]
C. Plinius Secundus sendeth greeting.



These bookes containing the Historie of Nature, which a few daies since I brought to light (a new worke in Latine, and namely among the Romanes your Citizens and Countrymen) I purpose by this Epistle of mine to present and consecrate vnto you, most sweet and gentle Prince [for * this title accordeth fittest vnto you, seeing that the name of [* Most mighty] sorteth well with the age of the Emperor your father:] which haply might seeme boldnesse and presumption in me, but that I know how at other times * you were wont to haue some good opinion of my toies and fooleries. Where, by the way, you must giue me leaue to mollifie a little the verses which I borrow of my countryman Catullus. (See also how I light vpon * a word vsed among souldiers, which you are acquainted with, since time we serued both together in the camp:) For he as you wot full well, changing the former syllables of his verses one for another, made himselfe somewhat more harsh than he would seeme to be vnto the fine eares of his familiar friends, the *Veranioli* & *Fabulli*. And withall, I would be thought by this my malapert writing vnto you, to satisfie one point, which, as you complained in your answer of late to another rude & audacious letter of mine, I had not performed, to wit, That all the world might see (as it were vpon record) how the Empire is managed by you and your father equally: and notwithstanding this imperial majestie wherunto you are called, yet is your affability and maner of conuersing with your old friends, fellow-like, & the same that alwaies heretofore it had been. For albeit you haue triumphed with him for your noble victories, bin Censor in your time, and Confull * six times, executed the sacred authoritie of the Tribunes, Patrones, and protectors of the Commons of Rome, together with him: albeit I say you haue otherwise shewed your noble heart in honouring and gracing both the court of the Emperor your father, and also the whole state of Knights and Gentlemen of Rome, whiles you were captaine of the guard, and grand-master of his house and roiall pallace (in which places all, you carried your selfe respectiue to the good of the Commonweale) yet to all your friends, and especially to my selfe, you haue borne the same countenance as in times past within the campe, when wee serued vnder the same colours, and lodged together in one paullion. So as in all this greatnesse and high estate whereunto you are mounted, there is no other change and alteration scene in your person but this, That your power is now answerable to your will, & able you are to doe and performe that good which you euer meant, and still intend.

* Titus

* Suauissimus

* Maximus

* Namque in
solebas, Meae
est aliqua p.
late nugas.
* Conteraneum

It seemes that
Pliny read thus
in Catullus, Tu
putare namq.
Nugas esse ali-
quid meae sole-
bas, which in-
deed was but
an hard com-
position and
couching of
the words.

* Sexies, or rather
Septies, out of Suetonius.

Plinies Epistle to T. Vespasian.

And howsoever this great maiestie, resplendent in you on euery side, in regard of those high dignities aboue rehearsed, may induce the whole world besides to reuerence your person in all obeisance; yet I for my part am armed onely with a kinde of audacitie and confidence to shew my dutie and deuoir vnto you, after a more familiar manner than others: and therefore, this my aduenturous rashnes, whatsoeuer, you must impute vnto your own courtesie: and if I chaunce to fault therein, thanke your selfe therefore, and seeke pardon at your own hands. Well, bashfulnesse I haue laid aside, and put on a bold face, and all to no purpose. For why? although your gentlenesse and humanitie be one way attractive, and induceth me to draw neare vnto your presence, yet another way you appeare in great maiestie: the sublimitie I say of your mind, your deepe reach, high conceit, and rare perfections, set me as far back: no liſtors & huiſhers marching before you, so much, that I dare not approach. In the first place: was there euer any man, whose words passed from him more powerfull, & who more truly might be said to flash forth as lightning the force of eloquence? What Tribune was there known at any time to persuaide & moue the people with good language, more effectually? How admirable was your vtterance in those publicke Orations, wherein you thundred out the praise-worthy acts of the Emperour your father, that all the grand-place rung therewith? what a singular testimonie shewed you of rare kindnesse & affection to your brother, in setting out his praises to the full? As for your skill in Poetrie, how excellent, how accomplished is it. Oh the bounty of your mind! Oh the fertility of your pregnant spirit! that you should find means to imitate, yea, and to match your * brother in that kind. But who is able boldly to giue an estimate of these gifts to their worth? How may a man enter into the due consideration thereof, without feare of exquisite censure, and exact iudgement of your wit, especially being prouoked and challenged thereunto as you are. For to say a truth, the case of them who publish a worke in generall tearmes, is farre vnlike to theirs that will seem to dedicat it particularly, and by name, to a Prince so iudicious as your selfe. For had I set forth this my booke simply, and staid there without any personal dedication, the I might haue come vpon you & said, Sir, what should a mightie Commander and Generall of the field, as you are, busie himselfe to read such matters? written these treatises were to the capacite of the vulgar people, for base commons, rude husbandmen, and peasants of the countrey, for poore artisans; and in one word, to gratifie them who had no other means of great employment, nor time & leisure but to studie vpon such points and nothing else: What should you make your selfe a censor of this worke? and verily, when I made first shew of this enterprize of mine, I never reckned you in the number of those iudges that should passe their sentence vpon these writings; I wist full well, that you were a greater person far, & I supposed that you would neuer abase your selfe nor stoupe so low as to read this booke of mine.ouer and besides, a common case it is, and incident to men of deepe learning and great conceit, that otherwhiles exception may be taken against them, and their iudgement reiecte in this behalfe. Euen M. Tullius that renoumed Orator, and who for wit and learning had not his fellow, taking the vantage of that libertie, vseth the benefit thereof: and (whereat wee may well maruell) maintaineth the action by an aduocate, and taketh example (for his defence) from Lucilius: for in one part of his workes thus hee saith, *I would not haue learned Persius to read these bookes of mine, loth I am that hee should censure mee.*

As

Plinies Epistle to T. Vespasian.

As for *Laelius Decimus*, I am content to submit them to his opinion. Now if such an one as *Lucilius*, who was the first that durst controule the writing of others, and tooke vpon him to scoffe at their imperfections, had rather thus to say; if *Cicero* tooke occasion to borrow the said speech of him for to serue his owne turne, and namely in his Treatise of Politiques, where he wrote of a Common-weal; how much greater cause haue I to distrust my self, and to decline and auoid the censure of some iudge of deepe vnderstanding? But cut I am from this refuge and meanes of defence, in that I expressly make choise of you in this dedication of my worke: for one thing it is to haue a iudge, either pricked by pluralitie of voices, or cast vpon a man by drawing lots; and a farre other thing to chuse and nominate him from all others: and great difference there is between that cheare and prouision which we make for a ghest solemnly bidden and inuited, and the suddaine fare and intertainment which is ready for a stranger who commeth to our house vnlooked for. *Cato*, that professed enemy of ambition, vain-glory, and indirect suit for offices, who took as great contentment in those estates and dignities which he refused and reiecte, as in them which he enioied, attained to this good name of vprightnesse and sinceritie, that when in the hottest broile about election of Magistrates that euer was in his time, they that stood therefore, put into his hands their mony vpon trust, as a cautionary pawne and assurance of their integritie and fidelitie that way; they professed that they did it in testimony of their conceit of his equitie and innocence, the chiefe and onely thing that a man is to regard in this life: whereupon ensued the noble and memorable exclamation of M. *Cicero*, who speaking of the said *Cato*, brake out into these words: Oh gentle M. *Portius*, how happy and blessed art thou, whom no man was euer so hardie as to sollicite to any leaud thing, or contrary to right and honestie! *L. Scipio*, surnamed *Asiaticus*, at what time as hee appealed vnto the Tribunes of the Commons, and besought their lawfull fauour (among whom, *C. Gracchus* was one, a man whom hee tooke for his mortall enemy) presuming vpon the goodness of his cause, gaue out and said, That his very enemies, if they were his iudges, could not chuse but quit him, and giue sentence on his side. Thus wee see how euerie man maketh him peremtorily the supreme and highest iudge of his cause, whom himselfe chuseth and appealeth vnto: which manner of choise the Latines call *Pronocatio*. As for your selfe verily, who are set in the most eminent & chiefe place among men, and otherwise endued with singular eloquence and profound knowledge, no maruell is it, if those that doe their dutie vnto you; salute you, kisse your hand, and come with great respect and reuerence: In which regard, exceeding care aboue all things would be had, that whatsoeuer is said or dedicated vnto you, may beſeem your person, and be worth acceptation. And yet the gods reject not the humble prayers of poore countrey peasants, yea, and of manie nations, who offer nothing but milke vnto them: and such as haue no Incense, find grace and fauour many times with the oblation of a plaine cake made onely of Meale and salt; and neuer was any man blamed yet for his deuotion to the gods, so he offered according to his abilitie, were the thing neuer so simple.

For mine owne part, challenged I may be more still for this my importune and inconsiderat boldnesse, in that I would seeme to present these bookes vnto you, comprised of so slender stuffe and matter as they be: for therein can be touched no

Plinies Epistle to T. Vespasian.

great wit (which otherwise in me was euer meane and simple) neither admit they any digressions, orations, speeches, and discourses, ne yet admirable cases and variable changes, or any other occurrent, either pleasant to rehearse, or delectable to heare. The truth is this, the nature of all things in this world, that is to say, matters concerning our daily and ordinarie life, are here deciphered and declared, and that in barrein terms, without any goodly shew of gay and glorious phrases: and whatsoeuer I haue put downe, concerne it doth the basest points thereof, inso-much as for the most part I am to deliver the thing in hand, either in rusticall speech, or else in forraigne, nay, in barbarous language, such also as may not well be vttered, but with reseruing honour to the hearers, and reuerence to the readers.

Moreover, the way that I haue entred into, hath not bin troden beforetime by other writers, being indeed so strange and vncouth, as a mans mind would not willingly trauell therein. No Latin author among vs hath hitherto once ventured vpon the same argument, no one Grecian whatsoeuer hath gone through it and handled all: and no manuell, for many of vs loue not to take any paines, but study rather to pen matters of delight and pleasure. True it is, I must needs say, that others haue made profession hereof, but they haue done it with such subtiltie and deepenesse, that all their trauels and writings by that means, lie as it were dead and buried in darkenesse. Now come I, and take vpon me to speak of euery thing, and to gather as it were a compleat body of arts and sciences (which the Greeks call *ἐπιστήμη*) that are either altogether vnkowne, or become doubtfull, through the ouermuch curiositie of fine wits: again, other matters are deciphered in such long discourses, that they are tedious to the readers, inso-much as they loath and abhor them. A difficult enterprise it is therefore to make old stuffe new, to giue authoritie & credit to nouelties, to polish and smooth that which is worne and out of vse, to set a glosse and lustre vpon that which is dim and darke, to grace & countenance things disstained, to procure beleete to matters doubtful; & in one word, to reduce nature to all, and al to their own nature. And verily to giue the attempt only and shew a desire to effect such a desseigne as this, although the same be not brought about and compassed, were a braue and magnificent enterprise. Certes of this spirit am I, that those learned men and great students, who making no stay, but breaking through al difficulties, haue preferred the profit of posteritie before the tickling and pleasure of itching eares in these daies; which I may protest that I haue aimed at, not in this worke only, but also in other of my bookes already: and I professe, that I wonder much at *T. Livius*, otherwise a most renowned & famous writer, who in a preface to one of his books of the Roman history which hee copied from the foundation of Rome, thus protested, That hee had gotten glorie ynough by his former writing, and might sit still now & take his ease, but that his mind was so restless, and so ill could abide repose, that contrariwise it was fed and nourished with trauel, & nothing else. But surely he thinks, in finishing those Chronicles, he should in dutie haue respected the glory of that people which had conquered the World, and aduanced the honour of the Romane name, rather than displayed his owne praise and commendation: Ywis, his demerit had beene the greater, to haue continued his story as he did, for loue of the subiect matter, and not for his priuat pleasure; to haue I say performed that peece of worke more to gratifie the state of Rome, than to content his owne minde and affection. As touching my selfe (forasmuch as *Domitius Piso* saith, That bookes ought to be

to

Plinies Epistle to T. Vespasian.

treasuries & store houses indeed, and not bare and simple writings) I may be bold to say and averre, That in 36 bookes I haue comprised 20000 things, all worthe of regard & consideration, which I haue recollected out of 2000 volumes or thereabout, that I haue diligently read (and yet very few of them there be that, men learned otherwise, and studious, dare meddle withall, for the deepe matter and hidden secrets therein contained) and those written by 100 seuerall elect and approved authors: besides a world of other matters, which either were vnkowne to our forefathers and former writers, or else afterward inuented by their posteritie. And yet I nothing doubt that many things there be, which either surpass our knowledge, or else our memorie hath ouerslipped: for men we are, and men employed in many affaires. Moreover, considered it would be, that these studies wee follow at vacant times and stolne houres, that is to say by night season onely; to the end that you may know, how wee to accomplish this haue neglected no time which was due vnto your seruice: The daies we wholly employ and spend in attendance about your person; we sleepe onely to satisfie nature, euen as much as our health requireth, and no more; contenting our selues with this reward, That whiles wee study and muse (as *Varro* saith) vpon these things in our closet, we gaine so many houres to our life; for surely we liue then only, when we watch and be awake. Considering now those occasions, those lets and hinderances about-named, I had no reason to presume or promise much; but in that you haue emboldened me to dedicate my bookes vnto you, your selfe performeth whatsoeuer in me is wanting: not that I trust vpon the goodnesse and worth of the worke, so much, as that by this means it will be better esteemed and shew more vendible: for many things there be that seeme right deare and be holden for precious, only because they are consecrate to some sacred temples.

As for vs verily, we haue written of you all, your father *Vespasian*, your selfe, and your brother *Domitian*, in a large volume which wee compiled touching the historie of our times, beginning there where *Ausidius Bassus* ended. Now if you demand and aske me, Where that historie is? I answer, that finished it was long since, and by this time is iustified and approved true by your deeds: otherwise I was determined to leave it vnto my heire, and giue order that it should be published after my death, lest in my life time I might haue bin thought to haue curried fauour of those, whose acts I seemed to pen with flatterie, & beyond all truth. And therefore in this action I do both them a great fauour who haply were indeed before me to put forth the like Chronicle, and the posteritie also which shall come after; who, I make reckning and know, will enter into the lists with vs, like as we haue done with our predecessors. A sufficient argument of this my good mind & frank hart that way you shal haue by this, That in the front of these books now in hand, I haue set down the very names of those writers, whose help I haue vsed in the compiling of the: for I haue euer bin of this opinion, That it is the part of an honest minded man, & one that is full of grace & modesty, to confesse frankly by whom he hath profited & gotten any good: not as many of those vnthankful persons haue done, whom I haue alledged for my authors. For to tell you a plain truth, know thus much from me, that in conferring the together about this worke of mine, I haue met with some of our moderne writers, who word for word haue exemplified & copied out whole books of old authors, and neuer vouchsafed so much as the naming of them, but haue taken their labors & trauels to themselves.

And

Plinies Epistle to T. Vespasian.

And this they haue not done in that courage and spirit to imitate, yea & to match them, as *Virgil* did *Homer*: much lesse haue they shewed that simplicitie and apert proceeding of *Cicero*, who in his bookes of Policie and Common-weale professeth himselfe to hold with *Plato*; in his Consolatorie Epistle written to his daughter, confesseth and lieth plainly thus, I follow *Crantor*, and *Panæti* likewise in his Treatise concerning Offices. Which worthy monuments of his (as you know well) deserue not onely to be seene, handled, and read daily, but also to be learned by heart euery word. Certes, I hold it for a point of a base and seruile mind, and wherein there is no goodnesse at all, to chuse rather to be surprised and taken in theft, than to bring home borrowed good, or to repay a due debt, especially when the occupying, vse, and interest thereof, hath gained a man as much as the principall.

Now as touching the titles and inscriptions of Bookes, the Greekes therein haue a wonderfull grace and great felicitie: some haue intituled them whereby they would giue vs to vnderstand of A sweet hony-combe: others *Νῆπος Αἰσθησις*, that is to say, The horne of plenty and store: in such sort, that whoeuer readeth these goodly titles, must needs hope for some great matters in such bookes, and as the proverb goeth, looke to drinke there or else no where, a good draught of hens milke. You shall haue moreouer their bookes set out with these glorious inscriptions, The Muses, The * Pandects, * Enchiridion, * *Ανμωδῶς*, * *Πανανιδιῶς*. Goodly names all, and such, as who would not make default of appearance in court, and forfeit a recognisance or obligation, to vnclasp such books and turne ouer the leafe? But let a man enter into them and reade forward, Lord! how little or no substance at all shall he find within the verie mids, answerable to that braue shew in the front or outside thereof? As for our countrey men (Latines I meane, and Romans) they be nothing so fine and curious as the Greekes, grosse are they in comparison of them in giuing titles to their books: they come with their Antiquities, Examples and Arts, and those also be such authors as are of the most pleasant and finest inuention amongst them all. *Valerius* who (as I take it) was named *Anias*, both for that hee was a Citizen of Antium, and also because the ancestors of his house were so called, vvas the first that gaue to a booke of his owne making, the title of *Lucubratio*, as a man would say, Candleworke or Night-studie. *Varro*, he tearmeth some of his Satyres *Sesculyxes* and *Flexibula*. *Diodorus* among the Greekes was the first that laied aside roiysh titles, and because he would giue some braue name to his Chronicles, entituled it *Bibliotheca*, i. a Librarie. *Apion* the famous Grammarian, euen hee whom *Tiberius Casar* called the Cymball of the world (whereas indeed hee deserued to bee named a Timbrill or Drum rather for ringing and sounding publique fame) was so vain-glortious, that he supposed all those immortalized, vnto whom hee wrote or composed any pamphlet whatsoever. For mine owne part, although I nothing repent mee that I haue deuised no pretier Title for my Booke than plaine *Naturalis Historia*, i. The reports of Nature, without more ceremonie; yet because I would not bethought altogether to course and rate the Greekes, I can be content, nay I am willing to bee thought in this behalfe like vnto those excellent grand masters in Greece, for Painting and Imagerie, whom you shall finde in these Reports of mine, to haue entituled those rare and absolute peeces of worke (vvhich the more wee view and looke vpon, the more wee admire and wonder

Plinies Epistle to T. Vespasian.

wonder at for their perfection) with halfe titles and vnperfect inscriptions, in this manner, *Apelles* * went in hand with this Picture: or, *Polycletus* was a making this Image: as if they were but begun, neuer finished and laid out of their hands: which was done (no doubt) to this end, that for all the varietie and diuersitie of mens iudgements scanning of their workmanship, yet the Artificer thereby had recourse to make excuse, had meanes (I say) to craue and haue pardon for any faults and imperfections that could be found, as if hee meant to haue amended any thing therein amisse or wanting, in case hee had not beene cut off and preuented by death. These noble workemen therefore herein shewed right great modestie, that they set superscriptions vpon all their painted tables, portraictures and personages, as if they had beene the last peeces of their workmanship, and themselues disabled by vnexpected death that they could not make a finall end of any one of them: for there were not knowne (as I take it) aboue three in all, which had their absolute titles written vpon them in this forme, *Ille fecit*, i. This *Apelles* wrought: and those pictures will I write of in place conuenient: By which it appeared evidently, that the said three tables were fully finished, and that the workeman was so highly contented with their perfection, that he feared the censure of no man: No maruaile then, if all three were so much enuied and admired throughout the world, no marueile if euery man desired to be master of them.

Now For my selfe, I know full well and confesse freely, that many more things may be added, not to this story alone, but to all my bookes that I haue put forth alreadie: which I speake by the way, because I would preuent and auoid those fault-finders abroad those correctors and * scourgers of *Homer*, (for surely that is their very name) (because I hear say there be certaine Stoike Philosophers, professed Logicians, yea, and Epicurians also (for at Grammarians hands and Criticks I neuer looked for other) who are with child still and trauaile vntill they be deliuered of somewhat against my bookes which I haue set forth as touching Grammer: and for this ten yeares space, nothing is come to light, but ouermore the fruit miscarrieth belike before the full time, as the slip of an vnperfect birth; whereas in lesse space than so, the verie Elephant bringeth forth her calfe, be it neuer so big. But this troubleth me neuer a whit, for I am not ignorant that a silly woman, euen an harlot, and no better, durst encounter *Theophrastus*, and write a booke against him, notwithstanding hee was a man of such incomparable eloquence that thereupon hee came by his diuine name *Theophrastus*: from whence arose this prouerbe and by-word, * Marie then go chuse a tree to hang thy selfe. And surely I cannot containe and hold my tongue, but I must needs set downe the verie words of *Cato Censorius*, so pertinent to this purpose; whereby it may appeare, that euen *Cato* himselfe a most worthy personage, who wrote of martialle Discipline, who had beene brought vp and trained to feats of warre vnder Great *Scipio Africanus*, or rather indeed vnder *Anniball*, who in the end could not endure *Africanus* himselfe, but was able to controll him in martiall affaires: and who besides hauing the conduct as L. Generall of the Romane armie, achieved the better hand ouer his enemies in the field, and returned with victorie: this *Cato* (I say) could not auoid such backbiters and slanderers, but knowing that there would be many of them readie to purchase themselues some name and reputation by reproving the knowledge and skill of others, brake out into

* To wit, *Homer* did.

* Containing all things, as *Tyrolus* did.

* A manuel to be carried alwaies in hand.
* Meadow.
* A Table or Index.

* *Apelles* said.

* *Homer* said.

* If women may be allowed to controule mens writings, we may be wearie of our liues and goe haue our selues well enough.

Plinies Epistle to T. Vespasian.

a certaine speech against them: And what was it? I know right well (quoth hee, in that booke aforesaid) that if these writings of mine come abroad once and be published to the view of the world, there will be many step forth to quarrell and caull therewith; such fellows soonest and most of all who are quite void of vertue and honestie, and know not what belongeth to true honour. But surely say what they will, I let their words runne by, like raine water. It was a prettie speech also and a pleasant apothegme, that *Plancus* vttered in the semblable case: for being informed that *Asinius Pollio* was deuising and framing certaine inuective Orations against him, which should be set forth either by himselfe or his children, after the decease of *Plancus* and not before, to the end that they might not bee answered by him; hee said readily by way of a scoffe, That none but vaine bugs and hobgoblins vse to fight with the dead: with which word hee gaue those orations such a counterbuffe, that (by the iudgement of the learned) none were accounted afterward more impudent and shamelesse than they. For mine owne part, being sure that these busie bodies shall neuer be able to bite me (and verily *Cato* hath giuen such fellows a proper name, and called them *Vitigatores*, by a tearme elegantly compounded of vices and quarrels: for to say a truth, what did they else but picke quarrels and make brawls?) I will proceed and go one still in my intended purpose.

Now to conclude and knit vp mine Epistle: knowing as I doe, that for the good of the Commonweale, you should be spared and not impeached by any priuat businesse of your owne, and namely in perusing these long volumes of mine; to preuent this trouble therefore, I haue adioyned immediatly io this Epistle, and prefixed before these books, the Summarie or Contents of euery one: and very carefully haue I endeauoured, that you should not need to read them throughout, whereby all others also after your example, may ease themselves of the like labour: and as any man is desirous to know this or that, he may seeke and readily find in what place to meet with the same. This learned I of *Valerius Soranus* one of our owne Latine writers, who hath done the like before me and set an Index to these Bookes which he entituled *Enchiridion*.



THE INVENTORIE OR INDEX
CONTAINING THE CONTENTS OF XXXVII
BOOKS, TOVCHING THE HISTORIE OF NATVRE,
WRITTEN BY C. PLINIVS SECVNDVS, WHICH IS RECEIVED FOR THE FIRST BOOKE OF THEM.

Ralph

¶ The Summarie of euery Booke.

Grey



He first Booke containeth the Dedicatorie Epistle or Preface of the whole worke, addressed to *Titus Vespasian* the Emperour. Also the names of the Authors out of which hee gathered the Historie, which he prosecuteth in 36 Bookes: together with the Summarie of euerie Chapter: and beginneth, *The Books, &c.*

The second, treateth of the World, Elements, and Starres: and beginneth thus, *The World, &c.*
The third, describeth the first and second gulse, which the Mediterranean sea maketh in Europe: and beginneth in this manner, *Hitherto, &c.*
The fourth, compriseth the third gulse of Europe, beginning, *The third, &c.*
The fifth, containeth the description of Affricke, and beginneth thus, *Affricke, &c.*
The sixth, handleth the Cosmographie of Asia, beginning thus, *The sea called, &c.*
The seuenth treateth of man, and his inuentions, beginning, *Thus as you see, &c.*
The eighth sheweth vnto vs, land creatures and their kindes, and beginneth after this manner, *Passé we now, &c.*
The ninth, laieth before vs all fishes, and creatures of the water, beginning in this wise, *I haue thus shewed, &c.*
The tenth speakes of flying foules and birds, and beginneth thus, *It followeth, &c.*
The eleuenth telleth vs of Insects, and beginneth thus, *It remaineth now, &c.*
The twelfth treateth of drugs and odoriferous plants, beginning, *Thus you, &c.*
The thirteenth describeth strange and forreine trees: beginning with these words, *Thus farre forth, &c.*
The fourteenth sheweth of vine-plants, &c. beginning thus, *Thus far forth, &c.*
The fifteenth comprehendeth all fruitfull trees, thus beginning, *There were, &c.*
The sixteenth describeth vnto vs all wild trees, beginning with, *Hitherto, &c.*
The seuenteenth containeth tame trees within hortyards, and beginneth with these words, *As touching the nature, &c.*
The eighteenth booke treateth of the nature of corne, and all sorts thereof, together with the profession of husbandmen, and agriculture, beginning after this manner, *Now followeth, &c.*

The

The first Booke of

The nineteenth discourseth of Flax, Spart, and Gardenage, beginning after this manner, *In the former booke, &c.*
 The twentieth sheweth of garden herbs, good to serue both the kitchin for meat, and the Apothecaries shop for medicine, & beginneth thus, *Now will we, &c.*
 The one and twentieth treateth of flours and garlands, & beginneth, *In Cato, &c.*
 The two and twenty containeth the chaplets and medicines made of hearbes, with this beginning, *Such is the perfection, &c.*
 The three and twentie sheweth the medicinable vertues of wine, and tame trees growing in hortyards, beginning thus, *Thus haue we, &c.*
 The foure and twentie declareth the properties of wild trees seruing in Physicke, beginning thus, *Nature, &c.*
 The five and twentie treateth of the herbes in the field comming vp of their own accord, and thus beginneth, *The excellencie, &c.*
 The six and twentie sheweth of many new and strange maladies, the medicinable vertues also of certaine herbes, according to sundry diseases, beginning thus, *The very face, &c.*
 The seuen and twenty goeth forward to certaine other hearbes and their medicines, and thus beginneth, *Certes, &c.*
 The eight and twentie setteth downe certaine receits of remedies in Physicke, drawne from out of man and other bigger creatures, and it beginneth in this manner, *Heretofore, &c.*
 The nine and twentie treateth of the first authours and inuentors of Physicke, also of medicines taken from other creatures, and beginneth, *The nature, &c.*
 The thirtieth booke speaketh of Magicke, and certaine medicines appropriat to the parts and members of mans bodie, beginning thus, *The vanitie, &c.*
 The one and thirtie containeth the medicinable vertues of fishes and water creatures, with this beginning, *Now follow, &c.*
 The two and thirtie sheweth other properties of fishes, &c. and beginneth in this manner, *Now are we come, &c.*
 The three and thirtie treateth of gold and siluer mines, and hath this beginning, *Time it is, &c.*
 The foure and thirtie speaketh of copper and brasse mines, also of lead, alto of excellent brasse-founders and workemen in copper, beginning after this manner, *In the next place, &c.*
 The five and thirtie discourseth of painting, colour, and painters, beginning in this sort, *The discourse, &c.*
 The six and thirtie treateth of marble and stone for building, and hath this beginning, *It remaineth, &c.*
 The seuen and thirtie concludeth with pretious stones, and beginneth at these words, *To the end that, &c.*

¶ IN

Plinies Naturall History.

¶ IN THE SECOND BOOKE IS CONTAINED
 the discourse of the World, of coelestiall impressions and meteors,
as also of them that appeare in the Aire, and upon Earth.

- | Chap. | | Chap. | |
|-------|-----------------------------------------------------------------------------------------------------------------------------------------------|-------|-------------------------------------------------------------------------------------|
| 1. | Whether the World be finite and limited within certaine dimensions or no? whether there be many, or but one? | 26. | Of the skie, and other such impressions, by way of example. |
| 2. | The forme and figure of Heauen and the world. | 27. | Strange colours appearing in the firmament. |
| 3. | The motion of Heauen. | 28. | Flames and leams-seene in the skie. |
| 4. | Why the world is called Mundus? | 29. | Circles of guirlands shewing aboue. |
| 5. | Of the Elements. | 30. | Of coelestiall circles and guirlands that continue not, but soone passe. |
| 6. | Of the seuen Planets. | 31. | Of many Suns. |
| 7. | Concerning God. | 32. | Of many Moones. |
| 8. | The nature of the fixed starres and Planets: their course and reuolution. | 33. | Of nights as light as day. |
| 9. | The nature of the Moone. | 34. | Of meteors resembling fierie targuets. |
| 10. | The eclipse of Sun and Moone: also of the night. | 35. | A strange and wonderfull apparition in the skie. |
| 11. | The bignesse of starres. | 36. | The extraordinarie shooting and motion of stars. |
| 12. | Diuerse inuentions of men, and their obseruations touching the coelestiall bodies. | 37. | Of the stars named Castor and Pollux. |
| 13. | Of Eclipses. | 38. | Of the Aire. |
| 14. | The motion of the Moone. | 39. | Of certaine set times and seasons. |
| 15. | Generall rules or canons touching planets or lights. | 40. | The power of the Dog-star. |
| 16. | The reason why the same planets seeme higher or lower at sundry times. | 41. | The fundrie influences of stars according to the seasons and degrees of the signes. |
| 17. | Generall rules concerning the planets or wandring stars. | 42. | The causes of raine, wind, and clouds. |
| 18. | What is the cause that planets change their colours? | 43. | Of thunder and lightning. |
| 19. | The course of the Sunne: his motion: and from whence proceedeth the inequalitye of daies. | 44. | Whereupon commeth the redoubling of the voice, called Echo. |
| 20. | Why lightnings be assigned to <i>Iupiter</i> . | 45. | Of winds againe. |
| 21. | The distances betweene the planets. | 46. | Diuerse considerations obserued in the nature of winds. |
| 22. | The harmonie of stars and planets. | 47. | Many sorts of winds. |
| 23. | The geometric and dimensions of the world. | 48. | Of sodaine blasts and whirle-puffs. |
| 24. | Of stars appearing sodainly. | 49. | Other strange kinds of tempests & storms. |
| 25. | Of comets or blasing stars, and other prodigious appearances in the skie: their nature, situation, and sundry kinds. | 50. | In what regions there fall thunderbolts. |
| 26. | The opinion of <i>Hipparchus</i> the Philosopher as touching the stars, fire-lights, lamps, pillars or beames of fire, burning darts, gapings | 51. | Diuers sorts of lightnings, and wonderous accidents by them occasioned. |
| | | 52. | The obseruations [of the Tuscanes in old time] as touching lightening. |
| | | 53. | Conjuring for to raise lightning. |
| | | 54. | Generall rules concerning leames and flashes of lightning. |
| | | 55. | What things be exempt and secured from lightning and thunderbolts. |
| | | 56. | Of monstrous and prodigious showres of raine, |

The first Booke of

Chap.

1. raine, namely of milke, bloud, flesh, yron, wooll, bricke, and tyle.
2. The rattling of harness and armour: the sound also of trumpets heard from heauen.
3. Of stones falling from heauen.
4. Of the Rain-bow.
5. Of Haile, Snow, frost, Mists, and Dew.
6. Of diuers formes and shapes represented in clouds.
7. The particular propertie of the skie in certaine places.
8. The nature of the Earth.
9. The forme and figure of the earth.
10. Of the Antipodes: and whether there bee any such. Also, as touching the roundnesse of the water.
11. How the water resteth vpon the Earth.
12. Of Seas and riuers nauigable.
13. What parts of the earth be habitable.
14. That the earth is in the mids of the world.
15. From whence proceedeth the inequality obserued in the rising and eleuation of the stars. Of the eclipses where it is, & wherefore.
16. The reason of the day-light vpon earth.
17. A discourse thereof according to the Gnomon: also of the first Sun-dyall.
18. In what places and at what times there are no shadows cast.
19. Where the shadows fall opposite and contrary twice in the yeare.
20. Where the dayes bee longest, and where shortest.
21. Likewise of Dyals and Quadrants.
22. The diuers obseruations and acceptations of the day.
23. The diuersities of regions, and the reason thereof.
24. Of Earthquakes.
25. Of the chinks and openists of the earth.
26. Signes of earthquake toward.
27. Remedies and helps againg earthquakes comming.
28. Strange and prodigious wonders seen one time in the earth.
29. Miraculous accidents as touching earthquake.

In sum, there are in this booke of histories, notable matters, and worthy obseruations, foure hundred and eightene in number.

Latine Authours cited.

As Varro, Sulpitius Galus, Tiberius Caesar Emperour, Q. Tubero, Tullius Tiro, L. Piso, T. Livius, Cornelius Nepos, Statius Sebosus, Cassius Antipater, Fabianus, Antias, Mutianus, Cecina, (who wrote of the Tuscan learning) Tarquinius, L. Aquila, and Sergius Paulus.

Forreine

Chap.

30. In what parts the seas went backe.
31. Islands appearing new out of the sea.
32. What Islands haue thus shewed, and at what times.
33. Into what lands the seas haue broken perforce.
34. What Islands haue bin ioyned to the continent.
35. What lands haue perished by water and become all sea.
36. Of lands that haue fertiled and bene swallowed vp of themselves.
37. What cities haue bene ouerflowed and drowned by the sea.
38. Wonderfull strange things as touching some lands.
39. Of certaine lands that alwaies suffer earthquake.
40. Of Islands that flote continually.
41. In what countries of the world it never raineth: also of many miracles as well of the earth as other elements huddled vp pell mell together.
42. The reason of the Sea-tides, as well ebbing as flowing, and where the sea floweth extraordinarily.
43. Wonderfull things obserued in the sea.
44. The power of the Moone ouer Sea and land.
45. The power of the Sun: and the reason why the sea is salt.
46. Moreouer, as touching the nature of the Moone.
47. Where the sea is deepest.
48. Admirable obseruations in fresh waters, as well of fountaines as riuers.
49. Admirable things as touching fire and water ioyned together: also of Maltha.
50. Of Naphtha.
51. Of certaine places that burne continually.
52. Wonders of fire alone.
53. The dimension of the earth as well in length as in breadth.
54. The harmonickall circuit and circumference of the world.

Plinies Naturall Historie:

Forreine Authours cited.

Plato, Hipparchus, Timaeus, Sosthenes, Petosirus, Necepsus, the Pythagoreans, Posidonius, Anaximander, Epigenes, Gnomonius, Euclides, Ceranus the Philosopher, Eudexus, Democritus, Crisodemus, Thrasillus, Serapion, Dicearchus, Archimedes, Onesicritus, Erastosthenes, Pytheas, Herodotus, Aristotle, Ctesius, Artemidorus the Ephesian, Isidorus Characenus, and Theopompus.

IN THE THIRD BOOKE ARE COMPREHENDED the Regions, Nations, Seas, Townes, Hauens, Mountains, Riuers, with their measures, and people, either at this day known, or in times past, as followeth:

Chap.

1. Of Europe.
2. The length and breadth of Boetica, a part of Spaine, containing Andalusia, and the realme of Grenado.
3. That hither part of Spaine called of the Romans Hispania Citerior.
4. The Prouince Nerbonensis, wherein is Dauphine, Languedoc, and Provançe.
5. Italie, Tiberis, Rome, and Campaine.
6. The Island Corfica.
7. Sardinia.
8. Sicilie.
9. Lipara.
10. Of Locri and the frontiers of Italie.
11. The second gulf of Europe.
12. The fourth region of Italie.

Chap.

13. The fifth region.
14. The sixth region.
15. The eighth region.
16. Of the riuier Po.
17. Of Italie beyond the Po, counted the eleuenth region.
18. Venice, the tenth region.
19. Of Istria.
20. Of the Alps, and the nations there inhabiting.
21. Illyricum.
22. Liournia.
23. Macedonie.
24. Noricum.
25. Pannonie, and Dalmatia.
26. Moesia.

In this book are described 26 Islands within the Adriatick and Ionian seas: their principall cities, townes and nations. Also the chiefe and famous riuers: the highest hills: speciall Islands besides: townes and countries that be perished. In summe, here are comprised notable things, histories, matters memorable, and obseruations to the number of 326.

Latine Writers brought in for testimony.

Turannius Graccula, Cor. Nepos, T. Livius, Cato Censorius, M. Agrippa, M. Varro, Divus Augustus the Emperour, Varro Attacinus, Antias, Hyginus, L. Vetus, Mela Pomponius, Curio the father, Caelius Aruntius, Sebosus, Licinius Mutianus, Fabricius Thufcus, L. Atteius Capito, Verrinus Flaccus, L. Piso, C. Elianus, and Valerianus.

Forreine Authours.

Artemidorus, Alexander Polyhistor, Thucydides, Theophrastus, Isidorus, Theopompus, Metrodorus, Scepsius, Callicrates, Xenophon, Lampasenus, Diodorus Syracusanus, Nymphodorus, Calliphanes, and Timagenes.

IN THE FOVRTH BOOKE ARE COMPRISED Regions, Nations, Seas, Townes, Hills, Hauens, Riuers, with theis dimensions and people, either now or in times past knowne: viz.

Chap.

1. Epirus.
2. Aetolia.
3. Locri.

Chap.

4. Peloponnesus.
5. Achaia.
6. Arcadia.

a 3

7. Greece.

The first Booke of

- Chap.*
 7. Greece and Attica.
 8. Theſſalie.
 9. Magnesia.
 10. Macedonia.
 11. Thracia.
 12. The Islands lying between those countries:
 among which, Creta, Eubœa, the Cyclads,
 Sporades: also the Isles within Hellespont
 neare the sea Pontus, within Mœotis, Da-
 cia, Sarmatia, and Scythia.
 13. The Islands of Pontus, called Mer Major.

Herein are contained many principall townes and countries, famous riuers; Islands also, be-
 sides cities or nations that be perished: in sum, diuerſe things, histories, and obseruations.

Latine Authors cited.

*M. Varr, Cato Censorius, M. Agrippa, Divus Augustus, Varro Attacinus, Cor. Nepos, Hyginus,
 L. Vetus, Pomponius Mela, Licinius Mutianus, Fabricius Thufcus, Atteius Capito, and Atteius
 Philologus.*

Of forreine Writers.

*Polybius, Hecataus, Hellanicus, Damastes, Eudoxus, Dicaarchus, Timosthenes, Ephorus, Crater,
 Grammaticus, Scrapion of Antioch, Callimachus, Artemidorus, Apollodorus, Agathocles, Eumachus
 Siculus the Musitian, Alexander Polyhistor, Thucydides, Dociades, Anaximander, Philistides, Mallo-
 ses, Dionysius, Aristides, Callidemus, Menachmus, Edasthenes, Amiclides, Heraclides, Philemon, Mene-
 phon, Pythias, Isidorus, Philonides, Xenagoras, Astynomus, Staphilus, Aristocritus, Metrodorus, Cleobulus,
 and Posidonius.*

IN THE FIFTH BOOKE ARE CONTAINED

Regions, Nations, Seas, Townes, Hills, Riuers, with their mea-
 sures, and people, either at this day being, or in times
past: that is to say,

- Chap.*
 1. Mauritania.
 2. The Prouince Tingitana.
 3. Numidia.
 4. Affricke.
 5. Cyrene.
 6. Lybia Maræotis.
 7. Islands lying about Affricke, & ouer-against
 Affricke.
 8. The Æthiopians.
 9. Asia.
 10. Alexandria.
 11. Arabia.
 12. Syria, Palæstina, Phœnice.
 13. Idumæa, Syria, Palæstina, Samaria.
 14. Iudæa, Galilea.
 15. Iordan the riuier.
 16. The lake Asphaltites.
 17. The Eſſenes.
 18. The countrey Decapolis.

- Chap.*
 19. Tyrus and Sidon.
 20. The mount Libanus.
 21. Syria Antiochena.
 22. The mountaine Casius.
 23. Cœle-Syria.
 24. The riuier Euphrates.
 25. The region Palmyra.
 26. Hierapolis the countrey.
 27. Cilicia and the nations adioyning: Pam-
 philia, Iauria, Homonades, Pisidia, Lycæ-
 onia, the mountaine Taurus and Lycia.
 28. The riuier Indus.
 29. Laodicea, Apamia, Ionia, and Ephe-
 sus.
 30. Æolis, Troas Pergamus.
 31. Islands affront Asia, the Pamphilian Sea,
 Rhodus, Samus, and Chius.
 32. Hellespont, Mysia, Phrygia, Galatia, Ni-
 cea, Bithynia, Bosphorus.

Herein

Plinies Naturall History.

Herein you find townes and nations, Principall Riuers, Famous Hills, Islands, 117 Townes.
 Also that are loft and perished. In summe, many things, histories and obseruations memorab.

Latine Authors alledged.

*Agrippa, Suetonius Paulinus, Varro Atacinus, Cornelius Nepos, Hyginus, L. Vetus, Mela, Domitius
 Corbulo, Licinius Mutianus, Claudius Caesar, Aruntius, Livius the son, Seboſus, the Acts and Records
 of the Triumphs.*

Forreine Writers.

*King Iuba, Hecataus, Hellanicus, Damastes, Dicaarchus, Bion, Timosthenes, Philonides, Xenagoras,
 Astynomus, Staphilus, Aristotle, Dionysius Aristocritus, Ephorus, Eratosthenes, Hipparchus, Panatinus,
 Scrapion Antiochenus, Callimachus, Agathocles, Polybius, Timæus the Mathematician, Herodotus, Myrtil-
 lus, Alexander Polyhistor, Metrodorus, Posidonius who wrote Periplus or Periegesis, Sotades, Periander,
 Aristarchus Sicyonius, Eudoxus, Antigenis, Callicratus, Xenophon Lampſacenus, Diodorus Syra-
 cusanus, Hanno, Himilco, Nymphodorus, Callippon, Artemidorus, Megasthenes, Isidorus, Celobulus,
 Aristocrcon.*

IN THE SIXTH BOOKE ARE CONTAINED

Regions, Nations, Seas, Cities, Hauens, Riuers, with their dimen-
sions, people also that be or haue been, to wit:

- Chap.*
 1. The sea called Pontus Euxinus, beforetime
 Axenus.
 2. The nations of the Paphlagonies and Cap-
 padocians.
 3. Cappadocia.
 4. The nations of the countrey Themiscyra.
 5. The Region Colchica. The Achæi, and the
 rest in that tract.
 6. Bosphorus Cimmerius, and Mœotis.
 7. The people about Mœotis.
 8. The Armeniæ both.
 9. Armenia the greater.
 10. Albania, Iberia.
 11. The Schuses and gates Caucasæ.
 12. Islands in Pontus.
 13. Nations about the Scythian Ocean.
 14. Media and the gates or streights Caspiæ.
 15. Nations about the Hircane sea.
 16. Also other nations confining vpon that
 Countrey.
 17. People of Scythia.
 18. The riuier Ganges.
 19. The nations of India.

- Chap.*
 20. The riuier Indus.
 21. The Arians and the nations bordering vpon
 on them.
 22. The Island Taprobane.
 23. Capissene, Carmænia.
 24. The Persian and Arabian gulſes.
 25. The Island Cassandrus, and kingdomes of
 the Parthians.
 26. Media, Mesopotamia, Babylon, Seleu-
 cia.
 27. The riuier Tigris.
 28. Arabia Nomades, Nabathæi, Omani, Ty-
 los and Ogyris two Islands.
 29. The gulſes of the red sea, the Troglodite
 and Æthyopian seas.
 30. Diuerſe nations of strange and wonderfull
 shapes.
 31. Islands of the Æthyopian sea.
 32. Of the fortunat Islands.
 33. The diuision of the earth calculated by
 measures.
 34. A diuision of the earth by climates, lines
 parallele, and equall shadowes.

Townes of name. 195. Nations of account. 566. Famous riuers. 180. Notable hills. 38.
 Principall Islands. 108. Cities and Nations perished. 195. In summe, there are rehearſed in
 this booke of other things, histories and obseruations. 2214.

Latine Authors alledged.

*M. Agrippa, Varro Atacinus, Cornelius Nepos, Hyginus, L. Vetus, Mela, Pomponius, Domitius
 Corbulo, Licinius Mutianus, Claudius Caesar, Aruntius Seboſus, Fabricius Thufcus, T. Livius, Seneca,
 Nigidius.*

Forreine

The first Booke of

Forreine writers.

King Iuba, Polybius, Hecataeus, Hellanicus, Damastes, Eudoxus, Dicaearchus, Beto, Timosthenes, Patrocles, Demodamas, Clitarchus, Eratosthenes, Alexander Magnus, Ephorus, Hipparchus, Panetius, Callimachus, Artemidorus, Apollodorus, Agathocles, Polybius, Eumachus Siculus, Alexander Polyhistor, Ammianus, Metrodorus, Posidonius, Onesicritus, Nearchus, Megasthenes, Diogenes, Aristocreon, Bion, Diodorus, Simonides the younger, Basilides, and Xenophon Lampascenus.

¶ IN THE SEVENTH BOOKE ARE CONTAINED the wonderfull shapés of men in diuerse countries.

Chap.

1. The strange formes of many nations.
2. Of the Scythians, and other people of diuerse countries.
3. Of monstrous and prodigious births.
4. The transmutation of one sex into another. Also of twins.
5. Of the generation of man. The time of a womans child-bearing, from seuen moneths to eleuen, proued by notable examples out of histories.
6. Of conceptions, and children within the wombe. The signes how to know whether a woman goe with a sonne or a daughter, before she is deliuered.
7. Of the conception and generation of man.
8. Of Agrippæ, i. those who are borne with the feet forward.
9. Of strange births, namely, by meanes of incision, when children are cut out of their mothers wombe.
10. Of Vopisci, i. such as being twins were borne aliue, notwithstanding the one of them was dead before.
11. Histories of many children borne at one burden.
12. Examples of those that were like one to another.
13. The cause and manner of generation.
14. More of the same matter and argument.
15. Of womens monethly tearmes.
16. The manner of sundry births.
17. The proportion of the parts of mans body and notable things therein obserued.
18. Examples of extraordinary shapés.
19. Strange natures of men.
20. Of bodily strength and swiftnesse.
21. Of excellent sight.
22. Who excelled in hearing.
23. Examples of patience.
24. Who were singular for good memorie.
25. The praise of C. Iulius Cesar.

Chap.

26. The commendation of Pompey the Great.
27. The praise of Cato, the first of that name.
28. Of valour and fortitude.
29. Of notable wits, or the praises of some for their singular wit.
30. Of Plato, Ennius, Virgill, M. Varro, and M. Cicero.
31. Of such as carried a maiestie in their behauiour.
32. Of men of great authority and reputation.
33. Of certaine diuine and heavenly persons.
34. Of Scipio Nasica.
35. Of Chastitie.
36. Of Pietie, and naturall kindnesse.
37. Of excellent men in diuerse sciences, and namely, in Astrologie, Grammer, and Geometrie, &c.
38. Item, Rare peeces of worke made by sundry artificers.
39. Of seruants and slaues.
40. The excellencie of diuerse nations.
41. Of perfect contentment and felicitie.
42. Examples of the varietie and mutabilitie of fortune.
43. Of those that were twice outlawed and banished: of L. Sylla and Q. Metellus.
44. Of another Metellus.
45. Of the Emperour Augustus.
46. Of men deemed most happy about all others by the Oracles of the gods.
47. Who was canonized a god while hee liued vpon the earth.
48. Of those that liued longer than others.
49. Of diuerse natiuities of men.
50. Many examples of strange accidents in maladies.
51. Of the signes of death.
52. Of those that reuiued when they were carried forth to be buried.
53. Of suddaine death.
54. Of sepulchres and burials.

55. Of

Plinies Naturall Historie.

Chap.

55. Of the soule: of ghosts and spirits.
56. The first inuentors of many things.
57. Wherein all nations first agreed.

Chap.

58. Of antique letters.
59. The beginning of Barbers first at Rome.
60. The first deuifers of Dials and Clockes.

In summe, there be in this booke of stories strange accidents and matters memorable 747.

Latine Authors alleadged.

Varrini, Flaccus, Cn. Gellius, Licinius Mutianus, Mutius, Massurius, Agrippina wife of Claudius, M. Cicero, A. Iulius Pollio, Messala, Rufus, Cornelius Nepos, Virgil, Livie, Cordus, Melissus, Sebosus, Cernelius Celsus, Maximus Valerius, Trognus, Nigidius Figulus, Pomponius Atticus, Peditanus, Aconius, Sabinus, Cato Censorius, Fabius Vestalir.

Forreine Writers.

Herodotus, Aristeus, Beto, Isigonus, Crates, Agatharcides, Calliphanes, Aristotle, Nymphodorus, Apollonides, Philarchus, Damon, Megasthenes, Ctesias, Tauron, Eudoxus, Onesicritus, Clitarchus, Duris, Artemidorus, Hippocrates the Physitian, Asclepiander the Physitian, Hesiodus, Anacreon, Theopompus, Hellanicus, Damasthes, Ephorus, Epigenes, Berosus, Pefiris, Necepsus, Alexander Polyhistor, Xenophon, Callimachus, Democritus, Duilius, Polyhistor the Historian, Strato, who wrote against the Propositions, and Theoremes of Ephorus, Heraclides Ponticus, Asclepiades who wrote Tragodamena, Philostephanus, Hegesias, Archimachus, Thucydides, Mnesigiton, Xenagoras, Metrodorus Scepsius, Anticlidus, and Critodemus.

¶ IN THE EIGHT BOOKE ARE CONTAINED the natures of land beasts that goe on foot.

Chap.

1. Of land creatures: The good and commendable parts in Elephants: their capacite and vnderstanding.
2. When Elephants were first yoked and put to draw.
3. The docilitie of Elephants, and their aptnesse to learne.
4. The clemency of Elephants: that they know their owne dangers. Also of the felnesse of the Tigre.
5. The perceiuaunce and memory of Elephants.
6. When Elephants were first seene in Italie.
7. The combats performed by Elephants.
8. The manner of taking Elephants.
9. The manner how Elephants be tamed.
10. How long an Elephant goeth with young: and of their nature.
11. The countries where Elephants breed: the discord and warre betweene Elephants and Dragons.
12. The industrie and subtil wit of Dragons and Elephants.
13. Of Dragons.
14. Serpents of prodigious bignesse: of Serpents named Boæ.
15. Of beasts engendred in Scythia, and the

Chap.

- North countries.
16. Of Lions.
17. Of Panthers.
18. The nature of the Tygre: of Camels and the Pard-Cammell: when it was first seene at Rome.
19. Of the Stag-Wolfe named Chaus: and the Cephus.
20. Of Rhinoceros.
21. Of Onces, Marmosets called Spingies, of the Crocutes, of common Marmosets, of Indian Boeufes, of Leucrocutes, of Eale, of the Æthiopian Bulls, of the best Mantrichora, of the Sicorne or Vnicorne, of the Caroblepa, and the Basiliske.
22. Of Wolues.
23. Of Serpents.
24. Of the rat of India called Ichneumon.
25. Of the Crocodiles and Skinke, and the Ruer-horse.
26. Who shewed first at Rome the Water-horse and the Crocodiles. Diuerse reasons in Physicke found out by dumb creatures.
27. Of beasts and other such creatures which haue taught vs certaine hearbes, to wit, the red Deere, Lizards, Swallows, Tortoises, the

The first Booke of

- | | |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p><i>Chap.</i>
the Weasell, the Stork, the Bore, the Snake, the Panther, the Elephant, Beares, Stockedoues, Houfe-doues, Cranes, and Ravens.
28. Prognostications of things to come, taken from beasts.
29. What cities and nations haue bin destroyed by small creatures.
30. Of the Hiæna, the Crocuta and Manti-chora: of Bieuers and Otters.
31. Of Frogs, sea or sea-Calues, and Stellions.
32. Of Deere both red and Fallow.
33. Of the Tragelaphis: of the Chamæleon, and other beasts that change colour.
34. Of the Tarand, the Lycæon, and the Wolfe called Thoes.
35. Of the Porc espines.
36. Of Beares, and how they bring forth their whelpes.
37. The rats and mice of Pontus, and the Alps: also of Hedgehogs.
38. Of the Leontophones, the Onces, Graies,</p> | <p><i>Chap.</i>
Badgers and Squirrels.
39. Of Vipers, Snailles in shels, and Lizards.
40. Of Dogs.
41. Against the biting of a mad dog.
42. The nature of Horses.
43. Of Asses.
44. Of Mules.
45. Of Kine, Bulls, and Oxen.
46. Of the Bœuf named Apis.
47. The nature of sheepe, their breeding and generation.
48. Sundry kinds of wooll and cloths.
49. Of sheepe called Musmones.
50. Of Goats and their generation.
51. Of Swine and their nature.
52. Of Parkes and Warrens for beasts.
53. Of beasts halfe tame and wild.
54. Of Apes and Monkies.
55. Of Hares and Connies.
56. Of beasts halfe sauage.
57. Of Rats and Mice: of Dormice.
58. Of beasts that liue not in some places.
59. Of beasts hurtfull to strangers.</p> |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

In summe, there be in this Booke principall matters, stories, and obseruations worth the remembrance 788.

Latine Authors alledged.

Mutianus, Procilius, Verrius Flaccus, L. Piso, Cornelius Valerianus, Cato Censorius, F. Cnestella, Trogus, Aëtius, Columella, Virgil, Varro, Lu. Metellus Scipio, Cornelius Celsus, Nigidius, Trebius Niger, Pomponius Mela, Manlius Sura.

Forreine writers.

King Iuba, Polybius, Onesicritus, Isidorus, Antipater, Aristotle, Demetrius the naturall Philosopher, Democritus, Theophrastus, Euanthes, Agrippa who wrote of the *Olympionica*, Hiero, King Atlas, King Philometer, Ctesias, Duris, Philistus, Architus, Philarchus, Amphilocus the Athenian, Anaxipolis the Thasian, Apollodorus of Lemnos, Aristophanes the Milesian, Antigonus, the Cymæan, Agathocles of Chyos, Apollonicus of Pergamus, Aristander of Athens, Bacchus the Milesian, Bion of Soli, Chæreas the Athenian, Diodorus of Pyreæum, Dio the Colophonian, Epigenes of Rhodes, Evagor of Thassus, Euphraninus the Athenian, Hegesias, of Maronea, Menander of Pyreæum, Menander also of Heraclea, Menecrates the Poet, Androctian who wrote of Agriculture or Husbandry, Æschrius who likewise wrote of that argument, Dionysius who translated *Mago*, Diophanes who collected an Epitome or Breuiarie out of *Dionysius*, King Archelaus, and Nicander.

IN THE NINTH BOOKE ARE CONTAINED the Stories and Natures of Fishes and water-creatures.

- | | |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p><i>Chap.</i>
1. The nature of water-creatures.
2. The reason why the creatures of the sea are of all other biggest.
3. The monstrous beasts of the Indian sea.</p> | <p><i>Chap.</i>
4. The greatest fishes and beasts in euery part of the Ocean.
5. Of Tritones, Nereides, and sea Elephants: their shapes and formes:
6. Of</p> |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

Plinies Naturall Historie.

- | | |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p><i>Chap.</i>
6. Of great Whales, called Balæna and Orca.
7. Whether fishes doe take and deliuer their breath: whether they sleepe or no?
8. Of Dolphins and their wonderfull properties.
9. Of the Tursiones.
10. Of the sea Tortoises, and how they bee taken.
11. Who first deuised to sluue the Tortoise shels into leaues.
12. The skins and shels of the sea creatures: the diuision of them into their seuerall kinds.
13. Of the Scale or sea-Calfe.
14. Of fishes smooth and without haire: how they spawn and breed: and how many sorts there be of them.
15. The names and natures of many fishes.
16. The prefaces by fishes, and their variety.
17. Of the Mullet and other fishes. That the same fishes are not in request in all places.
18. Of the Barble, the sea Rauens Coracinus: of Stock fish and Salmon.
19. Of the Exæcetis, Calamaris, Lampreies, &c.
20. The diuision of fishes by the shapes of their bodies.
21. Of Eeles.
22. The manner of taking them in the lake Benacus.
23. The nature of the Lamprey.
24. Of flat and broad fishes.
25. Of the stay-ship Echeneis, and his wonderfull nature.
26. The changeable nature of fishes.
27. Of the fish called the Lanterne, and the sea Dragon.
28. Of fishes wanting bloud.
29. Of the Pourcuttle, the Cuttle fish, the Calamaric, and the fish called the Sayler or Mariner.
30. The fish Ozæna, and Nauplius: also of Lobsters.
31. Of Crabs, Sea Porke spines: and of the greater sort named Echinometra.
32. Of Wilkes, Cockles, and shell fishes.
33. Of Scallops, Porcellanes, of the shell fish Murex, and other such.
34. The riches and treasures of the sea:</p> | <p><i>Chap.</i>
35. Of Pearles, how they be engendred, and where: also how they be found.
36. The nature of the Purple fish and the Butrets or Murices.
37. How many kinds there be of purple fishes.
38. How the purple fishes be taken.
39. When purple was first worne in the city of Rome.
40. The price of purple clothes at Rome.
41. The dying of the Amethyst colour, of the Skarlet in grain, and the light Skarlet Hyginus.
42. Of the fish called the Nacre, and his guide or keeper Pinnoteres: also the intelligence of fishes and water creatures.
43. Of Scolopendres, sea Foxes, and the fishes Glani.
44. Of the fish called the sea Ram.
45. Of those things which haue a third nature, beeing neither liuing creatures, ne yet plants, to wit, of sea Nettles and Spunges.
46. Of Hound fishes or sea dogs.
47. Of sea fishes that haue stony shels: of those that haue no fence at all: of other nastie and filthie creatures.
48. Of sea fishes venomous.
49. The diseases incident to fishes.
50. The admirall generation of Fishes.
51. <i>Item</i>, Another discourse of their generation: and what fishes they bee which doe lay egges.
52. The matrices or wombes of fishes.
53. What fishes liue longest.
54. Of Oyler pits, and who did first deuise them.
55. Who first inuented stewes and ponds to feed Lampreies in.
56. The stewes and ponds for other shell Fishes, and who brought them vp first to be vsed.
57. Of fishes that haunt the land.
58. The rats of Nilus.
59. Of the fish called Anthias, and how hee is taken.
60. Of the sea starres.
61. Of the fishes Daëtyli, and their admirable properties.
62. What fishes do entertaine amitie one with another, and which be euery at warre.</p> |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

In summe, this Booke containeth stories, notable things, and obseruations, to the number of 650, collected

The first Booke of

Out of Latine Authors.

Turanus Gracula, Trogus, Mecenas, Alfius Flavius, Cornelius Nepos, Laberius, the writer of merry Epigrams, Fabianus, Fenestella, Mutianus, Alfius Stilo, Statius Sebosus, Melissus, Seneca, Cicero, Macer Amylinus, Messana Corvinus, Trebius Niger, and Nigidius.

Out of Forreine Writers.

Aristotle, king Archelaus, Callimachus, Democritus, Theophrastus, Thrasyllus, Hegesidemus, of Cythnos, and Alexander Polyhistor.

IN THE TENTH BOOKE ARE CONTAINED the natures and stories of Foules and flying creatures.

Chap.

1. The nature of Foules.
2. Of the Phoenix.
3. Of Ægles.
4. When the Romane legions vsed the Ægle standard, and other ensignes. Also with what creatures Ægles maintaine fight.
5. A strange and wonderfull case as touching an Ægle.
6. Of the Vultures or Geires.
7. Of the foule Sangualis.
8. Of Faulcons and Hawkes.
9. Of the Cuckow, which is killed by birds of her owne kind.
10. Of Kites or Puttockes.
11. A diuision of birds into generall kinds.
12. Of vnluckie and ominous birds, the Crow, the Rauens, and the Like-owle.
13. Of the foule that carieth fire in her mouth.
14. Of the bird Clivina.
15. Of many birds vnknowne.
16. Of foules that flie by night.
17. Of Howlets.
18. Of the Wood-pecker.
19. Of birds which haue clawes and crooked talons.
20. Of Peacockes: and who killed them first for to be serued at the table.
21. Of Cockes: how they be cut: of a dunghill cocke that spake.
22. Of Geese: who first deuised to make a daintie dish of the Goose liuer: the graue or fat of Geese, called Comagenum.
23. Of Cranes, Storkes, Swans, strange foules of outlandish countries, of Quailes, and the bird Glotis.
24. Of Swallowes and Martins, of Blackbirds, Thrushes and Merles, of Sterlings, Turtle-doues, and Quoists or Ring-doues.
25. Of birds that tarie with vs all the yere long

Chap.

- of birds that be for halfe a yere onely, and others that remaine but three moneths.
26. Marvellous stories of birds.
27. Of birds called Seleucides.
28. Of the foule Ibis.
29. What birds will not abide in all places: which they be that change both hew and voice: also of Nightingales.
30. Of Merles or Ousels.
31. The time wherein birds breed, lay, and sit.
32. Of the birds Halciones, the nauigable daies that they doe shew: of the Sea-gulls and Cormorants.
33. The industry and subtilty of birds in building their neasts: of the ordinary Swallow, the riuier Swallow Argatilis: the bird Cinnamonologie that steale Cinnamon, and of Partridges.
34. Of House-doues.
35. Of Stock-doues.
36. Of Sparrowes.
37. Of the Kestrell or Stannell.
38. Of the flight and gait of birds.
39. Of certaine footlesse Martinets, called Apodes.
40. Of certain Gulls that milk and suck Goats vdders, and be named Caprimulgi: also of Pelicanes named Platea.
41. The perceiuance and naturall wit of birds.
42. Of the Linnet, Popinjay, or Parret, and such birds that will learne to speake.
43. The intelligence and vnderstanding that Rauens haue.
44. Of Diomedes his birds.
45. Of dull witted birds that will be taught nothing.
46. The manner how birds drinke.
47. Of foules called Himantipodes, and Onacrotali, and of other such strange birds.
48. The

Plinies Naturall History.

Chap.

48. The names of many birds, & their natures.
49. Of strange and new birds, such also as bee holden for fabulous.
50. Who deuised first to cram hens & capons, of bartons, mewes, and coupes to keepe and feed foules: and the first inuentor thereof.
51. Of Æsopes platter.
52. The generation of birds, and what fourfooted beasts do lay eggs as well as birds.
53. The knitting of eggs within the body, the laying, couing and sitting of them, the maner and time of birds engendering.
54. The accidents that befall to broodie birds while they sit, and the remedies thereof.
55. Auguries and prefaces by egges.
56. What Hens be of the best kind.
57. The diseases incident to Hens & the cure.
58. The manner how birds conceiue: what number of eggs they lay, & how many they hatch.
59. Of Peacockes and Geese.
60. Of Herons and Bitters. The way to preserve and keepe egges.
61. The only bird that bringeth forth her yong aliue, & feeds the same at the pap with milk.
62. The conception of the Viper, and how she is deliuered of her young, also what land creatures lay egges.
63. The ordinary generation of land creatures.
64. The diversitie of liuing creatures in the maner of their engendering.
65. The yong ones that mice and rats do breed.
66. Whether of the marrow of a mans backe bone a serpent will engender.
67. Of the Salamander.
68. What things bee engendred of those that were never engendred, and contrariwise, what creatures they be, which being engendered themselues, breed not.
69. The fences of liuing creatures.
70. That fishes doe both heare and smell.
71. That the fence of feeling is common to all liuing creatures.
72. What creatures liue of poysons, and eat earth.
73. Of the meat and drink of diuers creatures.
74. What creatures evermore disagree: and which they be that agree well together.
75. Of the sleepe of liuing creatures.

This booke hath in it of notable matters, histories and obseruations 904, gathered out of

Latine Authors and records.

Manilius, Cornelius Valerianus, the publike records and registers, Vmbritius surnamed Melior, Massurius Sabinius, Antistius Labeo, Trogus Cremutius, M. Varro, Macer Amylinus, Melissus, Mutianus, Nepos, Fabius Pictor, T. Lucretius, Cornelius Celsus, Horatius, Desulo, Hygginius, Sarsenna, both father and sonne, Nigidius and Manlius Sura.

Forreine Writers.

Homer, Phæmonoes, Philemon, Boethius who wrote a treatise called Ornithagonia, Hylas who made a discourse of Auguries, Aristotle, Theophrastus, Callimachus, Æschylus, Hicro, Philometer, Archytas, Amphilocheus the Athenian, Anaxipolis the Thasian, Apollodorus of Lemnos, Aristophanes the Milesian, Antigonus the Cynixean, Agathocles of Chios, Apollonius of Pergamus, Aristander the Athenian, Bacchius the Milesian, Bion of Soli, Chareas the Athenian, Diodorus of Pryæne, Dion the Colophonian, Democritus, Diophanes of Nicæa, Epigenes of Rhodes, Evagoras of Thafos, Euphonius of Athens, king Inba, Androcion who wrote of Husbandrie, and Æscron likewise who wrote thereof, Dionysius who translated Mago, and Diophanes, who reduced his worke into an Epitome, Nicander, Onesicritus, Philarchus, and Hesiodus.

IN THE ELEVENTH BOOKE ARE CONTAINED the stories and natures of small creatures and such as creepe on the ground.

Chap.

1. Of Insects in generall.
2. The naturall industrie of those Insects.
3. Whether Insects doe breath, and whether they haue bloud or no.

Chap.

4. The matter & substance of the Insects body.
5. Of Bees.
6. The government and order which Bees keep by instinct of Nature.

b

7. Diuers

The first Booke of

Chap.

7. Diuers operations of the Bees, & the tearmes thereto belonging.
8. Of what floures Bees do make their cellars, combs, and other workes.
9. What persons tooke a great loue to Bees, and delighted to nourish them.
10. The manner of Bees when they beat their businesse.
11. Of Drones.
12. The nature of Honey.
13. Which is the best Honey.
14. The feuerall and particular kinds of Hony in diuerse places.
15. The markes and tokens of good Honey.
16. Of a third kind of Honey, and how a man should know good Bees.
17. The regiment and policie that Bees obserue.
18. Diuerse sorts of Bees, and what things be hurtfull to Bees.
19. The diseases incident to Bees.
20. How to keepe the cast of Bees when they swarme, that they flie not away, also how to recover Bees, in case their breed and race be lost.
21. Of Wespes and Hornets.
22. Of filke flies, their wormes and Iackes called Bombylis and Necdylus, and who first deuised filke-cloth.
23. Of the filke-worme in the Island Choos.
24. Of the Spiders and their generation.
25. Of Scorpions.
26. Of Stellions and Grasshoppers.
27. In what countries there bee no Grasshoppers, and where they sing not.
28. The wings of Insects, of Beetles and their kinds.
29. Of Locusts.
30. Of Ants or Pismires in Italie.
31. Of Indian Ants or Emmets.
32. The diuerse sorts of Insects.
33. Of certaine creatures breeding of wood, and liuing of wood.

In summe, this Booke containeth notable things, stories, and obseruations, 2270.

Latine Authours cited.

M. Varro, Hyginus, Scropha, Sarcena, Celsus Cornelius, Amilius Macer, Virgil, Columella, Iulius Aquila, who wrote of the Tuscan discipline, Tarquilius, who likewise wrote of the same, and Vmbritius that trauelled in that argument, Cato Censorius, Domitius Caluinus, Trogus, Melissus, Favonius, Fabianus, Mutianus, Nigidius, Manilius, and Opus.

Forreine Writers.

*Aristotle, Democritus, Neoptolemus, who wrote * Militurgia, Aristomachus, who likewise made a*

Treatise

Plinies Naturall Historie

Treatise of the same, and *Philistus* also that did the like, *Nicander, Menecrates, Dionysius*, that translated *Mago, Empedocles, Callimachus, K. Attalus, Apollodorus*, who wrote of venomous beasts, *Hippocrates, Eriphilus, Erasistratus, Asclepius, Themiso, Posidonius* the Stoicke, the two *Menanders*, one of Priene, and the other of Heraclea, *Enphronius* of Athens, *Theophrastus, Hesiodus*, and *K. Philometor*.

IN THE TWELFTH BOOKE ARE CONTAINED discourses of Trees

Chap.

1. The honor done to trees, of the Plane-trees: when they were first brought into Italy, and of their nature.
2. Of the dwarfe Planes growing low, and who was the first that cut and shred trees into arbours.
3. Of strange trees, and principally of the Citron tree in Assyria.
4. Of India trees, and when Ebene was first seen at Rome.
5. Of a certaine Thorn and Fig-tree of India.
6. Of a tree named Pala: also of other Indian trees that are namelesse, and of those that beare wooll and cotton.
7. Of Pepper trees and Clove trees, and many others.
8. Of Macir or Sugar, and the trees growing in the region Ariana.
9. Of Bdelium, and of trees along the Persian gulfe.
10. Of trees growing in the Island within the Persian gulfe, and those that beare Cotton.
11. Of Gossampine trees, and those which serue to make cloth, and wherein consisteth the fruit of certaine trees.
12. Of Costus, Spiknard, & diuers sorts of Nard
13. Of Asarabacca, Amomum, Amonius, and Cardamomum.

Chap.

14. Of Frankincense, & trees that yeeld Incense
15. Of Myrrhe and Myrrhe trees.
16. Of sundry sorts of Myrrh, the nature thereof, and the price.
17. Of Masticke, Ladanum, and Bruta, of Enhamum, Strobilus, and Stryax.
18. Of the felicitie and happinesse of Arabia.
19. Of Cinnamon, and the wood therof called Xylocinnamum, and of Cassia.
20. Of Ifocinnamon or Canel, of Caucamum and Tarum.
21. Of Serichatum, Gabalium, and Ben, otherwise called Myrobalanus.
22. Of Dates called Phœnicobalanus, & sweet Calamus.
23. Of Ammoniacum, and the sweet Mosse called Sphagnum, or Vinea.
24. Of Cyprus, Aspalathus and Marum.
25. Of Baulme, as well the liquor called Opobalsamum, as the wood Xylobalsamum, of Storax and Galbanum.
26. Of Panace, Spondylium, and Malobathrum or Folium Indicum.
27. Of the oyle of green Oliues called Omphacium, and of Verjuice.
28. Of Bryon, and the wild Vine Oenanthe, of the Firre Elate, of Cinnamon, and the oyle of Nuts called Caryopus.

In summe, this booke containeth in it of notable matters, histories, and obseruations, 974.

Latine Authours alledged.

M. Varro, Mutianus, Virgil, Fabian, Sebosus, Pomponius Mela, Flavius Proculus, Trogus, Hyginus, Claudius Caesar, Cornelius Nepos, Sextus Niger, who wrote in Greeke of Physicke, *Cassius Hemina, L. Piso, Tuditianus, and Antias.*

Forreine Writers.

Theophrastus, Herodotus, Callisthenes, Isidorus, Clitarchus, Anaximenes, Diors, Nearchus, Onesicratius, Polycritus, Olympiodorus, Diognetus, Nicobolus, Anticlaides, Charax of Mitylene, Menechmus, Dorotheus, Xenias the Athenian, Lycus, Antans, Ephippus, Chareas, Democles, Ptolomeus, Lagus, Marsyas the Macedonian, Zoilus likewise of Macedonie, Democritus, Amphilocus, Aristomachus, Alexander Polyhistor, king Iuba, Apollodorus the authour of the treatise concerning sweet odours, Heraclides the Physitian, Archidemus likewise the Physitian, Dionysius, Democides, Euphron, Obfenides, Diagoras, Iolla (all six Physitians) Heraclides of Tarentum, Xenocritus of Ephesus, and Erasosthenes.

¶ IN THE THIRTEENTH BOOKE ARE CONTAINED Treatises of Ointments and of Trees by the sea side.

- | | |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p><i>Chap.</i>
 1. Of sweet ointments & perfumes: when they came to bee first knowne at Rome, and of their composition.
 2. What ointment was that which they called Roiall: which bee Diapasmate or drie perfumes, and how they be kept.
 3. The ryorous and superfluous expences that the Romanes were at for such ointments: and when they were first taken vp and vsed in Rome.
 4. Of Palmes or Date trees, their nature and sundry sorts.
 5. The trees of Syria.
 6. Of the Terebinth tree.
 7. Of the Egyptian Figtree or Sycomore, and that of Cypresse.
 8. Of the fruit which is called Ceraunia Siliqua.
 9. Of the Peach-tree or Persica of Ægypt: and the Ægyptian Thorn, wherof commeth Acacia.
 10. Of the Plum tree and others about Memphis.
 11. Sundry sorts of gums, and of the Papyr reed.
 12. Diuers kinds of Paper, how Paper is made,</p> | <p><i>Chap.</i>
 the triall of good Paper, the faults of Paper, and the paste that goeth to the making of Paper.
 13. The bookes of king Numa.
 14. The tree of Æthiopia.
 15. The trees of Atlas, Citron trees, what points are commendable or otherwise faultie therein.
 16. Of the tree Thya.
 17. Of the tree Lotus.
 18. Of the body and roots of Lotus.
 19. Of Patyurus, of the Pomgranat, and the floure of the Pomgranat.
 20. Of plants and shrubs in Asia and Greece.
 21. Of Thymelæa, Chamelæa, Tragacanth, Tragium or Scorpio, of Tamariske, Brya, and Galla.
 22. Of Euonymus or Spynle tree, of Adrachne Congygria, and Thapsia.
 23. Of Capparis or Cynosbatos, or Opheostaphyle, and of Sari.
 24. Of the royall thorne of Babylon, and Cytilus or tree Trifolie.
 25. Of shrubs and trees growing vpon our Mediterranean seas, the red sea and the Indian sea.</p> |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

In summe, there be comprised in this book of notable things, stories, and obseruations, foure hundred fiftie and eight.

Latine Authours cited.

Marcus Varro, Mutianus, Virgil, Fabianus, Sebosus, Pomponius Mela, Flavius Proculus, Troguus, Hyginus, Clandius Caesar, Cornelius Nepes, Sextius Niger, who wrote in Greeke of Physicke, Cassius Hemina, L. Piso, Tuditanus, and Antias.

Forreine Writers.

Theophrastus, Herodotus, Callisthenes, Isidorus, Clitarchus, Anaximenes, Duris, Nearchus, Onesicritus, Polieritus, Olympiodorus, Diognetus, Cleobulus, Anticlidus, Charax the Mitylenæan, Menachmus, Dorotheus, Xenias the Athenian, Lycus, Antaus, Ephippus, Dio, Adimanthus, Ptolomæus Lagus, Marfyas and Zoilus, both Macedonians, Democritus, Amphilocheus, Alexander Polyhistor, Aristomachus, king Iuba, Apollodorus who wrote of Odours, Heraclides the Physician, Boetius, Archidemus, Dionysius, Democlidus, Euphron, Mnesicles, Diagoras and Iolla Physicians all, Heraclides of Tarentum, and Xenocritus the Ephesian.

¶ IN

¶ IN THE FOVRTEENTH BOOKE ARE CONTAINED Treatises of Vine-trees and Vine-yards.

- | | |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p><i>Chap.</i>
 1. Of Vines and their nature, the manner how they beare grapes.
 2. Sundry kinds of Vines in generall.
 3. More kinds of Vines according to the propertie of countries where they grow.
 4. Notable considerations as touching the planting and ordering of Vines.
 5. The nature of wine.
 6. The best and most kindly wines.
 7. Wines outlandish and beyond sea.
 8. Of the wine called Bixen, seuē kinds thereof.
 9. Of sweet wines fourteen sorts.
 10. Of second wines or household wines.
 11. What good wines began of late to bee in request at Rome.
 12. Obseruations of wine, set downe by king Romulus.</p> | <p><i>Chap.</i>
 13. The ancient vsage of wine, and the wines of old time.
 14. Of cellars for wine, and the wine Opimianum.
 15. Cæsars liberalitie in wine, and when first there were foure sorts of wine set downe.
 16. Of artificiall or set wines.
 17. Of Hydromell and Oxymell.
 18. Prodigious and strange kinds of wine.
 19. What wines might not be vsed in sacrifices, and with what sorts new wines are sophisticated.
 20. Sundry sorts of Pitch and Rosin: of the manner of sophisticated new wines: of vinegre and wine lees.
 21. Of wine cellars.
 22. Of auoiding drunkenesse.</p> |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

In summe, it containeth notable matters, histories and obseruations 510, gathered out of

Latine Authors.

Cornelius Valerius, Virgil, Celsus, Cato Censorius, Sarsennas both father and sonne, Scrophia, Varro, Decimus Syllanus, Fabius Pictor, Troguus Hyginus, Flaccus Verrinus, Gracinus Iulius, Accius, Columella, Massarius Sabinus, Feneftella, Tergilla, M. Aetius Plautus, Fabius, Dorfennus, Scavola, Aelius, Atteius Capito, Cotta Messalinus, L. Piso, Pompeius Lenaxus, Fabianus, Sextius Niger, and Vibullus Rufus.

Forreine Authors.

Hesiodus, Theophrastus, Aristotle, Democritus, king Attalus, K. Philometer, Architas, Xenophon, Amphilocheus the Athenian, Anaxipolis the Thasian, Apollodorus the Lemnian, Aristophanes the Milesian, Antigonus the Cymæan, Agathocles the Chian, Apollanius of Pergamus, Aristander of Athens, and likewise Batrys the Athenian, Bacchius the Milesian, Bion of Soli, Chereas the Athenian, and Cheristus likewise of Athens, Diodorus of Priene, Dio the Colophonian, Epigenes the Rhodian, Evagoras the Thasian, Euphron of Athens, Androcion, Escrion and Lysimachus, who wrote al three of Agriculture, Dionysius who translated Mago, Diophanes who brought Dionysius into an Epitome, Asclepiades the Physitian, Onesicritus and king Iuba.

¶ THE FIFTEENTH BOOKE TREATETH OF the nature of Trees fruitfull, and planted in Hort-yards.

- | | |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p><i>Chap.</i>
 1. The nature of fruitfull trees.
 2. Of the oyle of Olives.
 3. The nature of the Olive & yong Olive trees.
 4. The nature of the oyle Olive.
 5. The manner of husbanding Olive rowes.
 6. How to keepe Olives and make oyle thereof.</p> | <p><i>Chap.</i>
 7. Of artificiall oyle.
 8. Of the dregs or Olive cake, being pressed.
 9. Of fruits of trees good to eat, their seuerall kinds and natures.
 10. Of Pine nuts foure kinds.
 11. Of the Quince.</p> |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

b 3

12. Of

The first Booke of

Chap.

12. Of Peaches foure sorts.
13. Of Plums eleuen kinds.
14. Sundry kindes of Apples, and namely, nine and twentie sorts.
15. Of Peares and Wardens: of sundrie strange diuises to graffe trees.
16. Of preferuing and keeping Apples & such like fruits.
17. The manner how to keepe Quinces, Pomgranats, Peares, Wardens, Soruifes, and Grapes.
18. Of Figs nine and twentie sorts.
19. Of the wild Figtree: of caprifigation or the manner how to bring Figs to maturitie by the meanes of certaine flies.
20. Of Medlars, and three sorts of them.

Chap.

21. Foure kinds of Soruifes.
22. Of the Walnut.
23. Of Chestnuts eight kinds.
24. Of Charobs called Siliquæ, of Apples, of Mulberies, of Graines, Pippins and Kernils within the fruits, also of berries.
25. Of Cherries eight sorts.
26. Of the Corneill fruit, and Lentisk.
27. Sundry sorts of juices, and odours.
28. Of the juices in fruits and trees: of colors, smells, and the natures of diuerse fruits, also the singularities and commendations of them.
29. Of the Myrtle eleuen kinds thereof.
30. Of the Lawrell or Bay-tree, thirteene sorts of it.

In summe, there be comprised in this booke of notable matters, stories, and obseruations 30, collected out of

Latine Authors,

Penestella, Fabianus, Virgill, Cornelius, Valerianus, Celsus, Cato Censorius, Sarsenna (both father and sonne) *Scropha, Mar. Varro, D. Syllanus, Fabius Piclor, Trogus, Hyginus, Flaccus Verrinus, Gracinus, Atticus, Iulius Sabinus, Tergilla, Cotta Messalinus, Columella, L. Piso, Pompeius Lenaxus, M. Accius Plantius, Fabius Dorfenus, Scauola, Abius, Atteius Capito, Sextus Niger, and Vibius Rufus.*

Forreine writers.

Hesiodus, Aristotle, Democritus, king Hiero, Architas, king Philometor, king Attalus, Xenophon, Amphilocheus the Athenian, Anaxipolis the Thasian, Apollodorus of Lemnos, Aristophanes the Milesian, Antigonus the Cymæan, Agathocles of Chios, Apollodorus of Pergamus, Aristander the Athenian, Bacchus the Milesian, Bion of Soli, Chareas of Athens, and Charistius likewise the Athenian, Diodorus of Priene, Dion the Colophonian, Epigenes the Rhodian, Evagoras the Thasian, Euphromus, the Athenian, Androcion and Eschryon (who writ both of Husbandry) Dionysius, that translated the books of Mago, and Dionysius the Epitomist, who brought them all into a Breuiarie. Asclepiades and Erasistratus, both Physitians, Comiades, who wrote as touching the confections of wine, Aristomachus, Hicesius, who both treated of the same matter, Themison the Physitian, Onesicritus, and king Inba.

¶ IN THE SIXTEENTH BOOKE ARE CONTAINED the natures of wild trees.

Chap.

1. Countries wherein no trees doe grow: miraculous wonders of trees in the North countries.
2. Of the great Forrest Hircynia.
3. Trees that beare mast.
4. Of the Ciuick guirland, and who in old time were adorned and honoured with chaplets of tree leaues.
5. Of Mast thirteene kinds.
6. Of Beech Mast, and other sorts of Mast: of

Chap.

- Coale, and the feeding of Hogs.
7. Of Gals, and how many things besides Mast and Acornes Mast trees do beare.
8. Of Cachrys, and of the Skarlet graine: also of Agaricke and Corke.
9. Of what trees the barke is in vsage.
10. Of shindles to couer houses, of the Pine-tree and the wild Pine, of the Fir & Pitch-tree, of the Larch-tree, of the Torch-tree Toeda, and the Eugh-tree.

11. The

Plinies Naturall Historie

Chap.

11. The manner of making fundrie sorts of Pitch and Tar: how the virgin pitch called Cedrium is made: of the thicke stone pitch how it is made: and the waies to boile rosin.
12. Of the ship pitch called Zopissa: of Sapium: and those trees that yeeld timber good for building.
13. Of the Ash tree, foure kinds.
14. Of the Teil or Linden tree, two seuerall sorts thereof.
15. Ten diuerse sorts of Maples.
16. Of the knot in Maple called Bruscus and Molluscum: of a kind of Fisticke tree called Staphylodendron: of Box tree three sorts.
17. Of the Elme, foure kinds.
18. The nature of trees according to their situation and places where they grow.
19. A generall diuision of trees.
20. What trees neuer shed their leaues quite: of the Oleander tree called Rhododendron.
21. Again what trees lose not their leaues, but (hew alwaies greene, which be they that shed their leaues in part. In what countries no trees at all doe lose their leaues.
22. The nature of those trees which let fall their leaues, and which haue leaues of sundry colours.
23. Three sorts of Asps or Poplers: & of what trees the leaues do alter their forme and fashion.
24. What leaues vse to turne euery yeere: the manner how to order the leaues of Dare trees and to vse them. Also strange and admirable things as touching leaues.
25. The order and course that Nature holdeth in plants: the blossomes of trees: their manner of conception, blooming, budding, and bearing fruit: and in what order they put out floures.
26. Of the Corneill tree: the right season wherein euery tree beareth fruit: what trees bee fruitlesse, and therefore are supposed vnhappy: which they bee that soone lose their fruit: and last of all what trees shew fruit before they be put forth.

In summe, this booke comprehendeth of notable things, histories, and obseruations, an hundred and fise and thirtie.

Latine Authors alledged.

M. Varro, Facialis, Nigidius, Cornelius Nepos, Hyginus, Massurius, Cato, Mutianus, Lucius Piso, Trogus, Calpurnius, Bassus, Cremutius, Sextus Niger, Cornelianus Bocchus, Vitruvius, and Gracinus.

Chap.

27. Of trees that beare fruit twice and thrice in one yeere: what trees sodainly wax old: the age of trees.
28. Of the Mulberrie tree.
29. Of trees growing wild.
30. Of the Box tree, and the great Beane tree or Lotus.
31. Of the boughs, branches, barke, rinde, and root of trees.
32. Of prodigious trees that preface somewhat to come: of trees that spring and grow of themselues. Also a discourse, that all trees grow not in euery place: and what trees will not liue but in this or that one place.
33. Of the Cyprus tree. Also, that the ground will bring forth some new plants that neuer were set, sowne, or growing there before.
34. Of Yvie.
35. Of the Ivie called Smilax.
36. Of Reeds, Canes, and shrubs growing in water.
37. Of the osier or willow, eight sorts thereof: also what twigs besides osiers and willowes are good for winding and to bind withall: of bushes and grieues.
38. The juice and liquor of trees: the nature of their wood and timber: also of hewing downe and falling trees.
39. Of the Larch tree, the Fir and the Sapine: the time of cutting them downe, and such like.
40. Sundry sorts of wood: the extraordinary bignesse of trees: what wood is not subject to be worme-eaten nor to decay: other trees that be euerlasting.
41. Of Woodwormes.
42. Of timber fit for carpentrie and building: what timber is good for this or that vse, and namely, which is best and more firme and durable for rouses of houses.
43. The maner of glewing boards and planks: also of rent and clouen stiffe.
44. The age of trees: which be they that last not long: of Mistleto, and of the Priests Drydæ.

Forcing

The first Booke of

Forreine Writers,

Alexander Polyhistor, Hesiodus, Theophrastus, Democritus, Homer, Timaeus the Mathematician.

¶ THE SEVENTEENTH BOOKE CONTAINETH the nature of trees planted, set, and well kept in Hort-yards.

Chap.

1. Trees of wonderfull price.
2. Of the nature of heauen and the skie respectiue vnto trees: and what part of the skie they ought to regard.
3. The societie and accord of the clymat and the soile requisit for trees.
4. The qualities of the grounds in diuers regions.
5. Sundry kinds of ground and earth.
6. Of a kind of earth or marle that they in Britaine and France set much store by.
7. What the Greekes haue taught, and what rules they haue giuen as touching this point.
8. Of more kinds of earth.
9. The vse of ashes, and of dung: what plants will enrich the ground and make it more battell: contrariwise, which they bee that burne out the heart thereof.
10. The planting or setting of trees: how to make a sion or slip to take and grow againe that is plucked from the root of the stocke.
11. Of transplanting out of Seminaries, yong trees that came of pepins and feeds.
12. The spaces betweene, and distance to bee regarded in planting trees: the shadow and droppings, either from house eaves or other trees.
13. What trees grow apace, and which thriue but slowly: also of the Savine.
14. The setting and grafting imps and sions of trees in the stocke or cliffe.
15. Of the manner how to graffe a vine.
16. Of inoculation or grafting in the leafe or scutcheon with a plaster.

In summe, here bee contained notable matters, stories, and obseruations, to the number of five hundred eightie and one.

Latine Authors alledged.

Cornelius Nepos, Cato Censorius, M. Varro, Celsus, Virgil, Hyginus, Sarsenna both father and sonne, Scrophas, Calphurnius, Bassus, Trogius, Amilius Macer, Gracianus, Columella, Atticus, Iulius, Fabianus, Sura Manlius, Dorfenus Mundus, Caius Epidicus, and L. Piso.

Forreine Writers.

Isidorus, Theophrastus, Aristotle, Democritus, Theopompus, king Hiero, K. Attalus, K. Philometor, Archytas,

Plinies Naturall History.

Archytas, Xenophon, Amphilocheus the Arhenian, Anaxipolis the Thasian, Apollodorus of Letnno, Aristophanes the Milesian, Antigonus the Cymæan, Agathocles the Chian, Apollonius of Pergamus, Bacchius the Milesian, Bion, Chærea the Athenian, also Charisius of Athens, Diodorus of Priene, Dion the Colophonian, Epigenes the Rhodian, Evagron the Thasian, Euphron the Athenian, Androcion, Alschirion, Lyfimachus, who all three wrote of Agriculture: Dionysius who translated the bookes of Mago, and Diophanes, who out of Dionysius collected a Breviarie, and Aristander who made a treatise of Wonders and portenteous tokens.

¶ THE EIGHTEENTH BOORE IS A TREATISE of Agriculture or Husbandrie.

Chap.

1. That our ancestors in old time were exceeding much giuen to husbandrie. Also, the singular care that men had to looke vnto horticards and gardens.
2. Of the first chaplets and guirlands vsed at Rome.
3. Of the acre of ground and halfe acre, called at Rome *Iugeris* & *Actus*. The ancient ordinances concerning cattell: in what time the market for victuals was exceeding cheap at Rome: and who were famous & renowned for husbandrie and tilling the ground.
4. The ancient manner of tilling the earth.
5. Where a ferme house is to bee seated and built conveniently: certain rules in old time concerning tillage.
6. A discourse as touching the praise of husbandmen: what rules are to be obserued to come by a good peece of land.
7. Diuers kinds of corne, and their nature.
8. That all sorts of graine will not grow euery where. Of other kinds of corne in the Levant or East countries.
9. Of baking and pastrie: of grinding and of meale.
10. Of the fine cocked flour: of the white flour of wheat, and of other sorts of floure: the manner of moulding and making dough, and baking.
11. The manner of making and laying leaven: also of making past & bread: and when Bakers were first knowne at Rome. Of sieves, ferces, and bulters; and of foddren wheat or frumentie.
12. Of pulfe.
13. Of Rapes and Navewes in the Amitemine tract.
14. Of Lupines.
15. Of Verches and Ervile.
16. Of Fenigreeke: of Messelline or dredge-corne: of Mung-corne or Bollimong for provander: of Clauer or three-leafed grassie

Chap.

- called Medica, and of another Trefoile named Cytisus.
17. The faults and diseases in corne, graine, and pulfe, and their remedies: what corne or pulfe ought to be sowne with respect to the ground.
18. Of prodigious tokens obserued in corne. The skill of ploughing the ground: the diuers sorts of culcers & shares in the plough.
19. The seasons of the yere fit to till & plough the ground. The manner of putting oxen in the yoke for the plough.
20. Of breaking clods or harrowing: of another kinde of tilling: the earing or second tilth or stirring the ground. And cutting the corne.
21. The manner of tilling and husbanding land.
22. Examples of diuers grounds: of such as are wondrous fertile: of a vine that beareth grapes twice in the yere. The difference of waters.
23. The qualitie of the ground or soile: of compost or dunging lands.
24. The goodnesse of choise seeds: the manner of good sowing: how much seed of any corn an acre will take to be well sowne. The seasons of seednesse.
25. The obseruation of the stars for their apparition or occultation, their rising and setting, as well for day as night.
26. A recapitulation and brieffe summarie of all things belonging to husbandrie. What is to bee done in the field euery moneth of the yere.
27. That husbandmen should not so much regard the signe or the stars, as the fit season of the time for seednes. The rising or fall, the apparition or occultation of planets obserued in some hearbes. Of the rising and setting of stars.
28. Of meadows: how they are to be repaired and

The first Booke of

- Chap.*
and brought into hart: of fith-stones, hooks, fickle, and fithes: the time of sowing corne, and what fixed starres are of power about that time.
29. Of the seasons and times to be marked as well in summer as winter: what remedy for barraine and leane ground.
30. Of the haruest: of wheat, of chaffe: how to keepe corne.

In summe, there be contained in this booke of notable matters, stories, and obseruations, two thousand and six hundred.

Latine Authors alledged in this booke.

Massurius Sabinus, Cassius Hemina, Verrius Flaccus, L. Piso, Cornelius Celsus, Turannius Graccula, D. Syllanus, M. Varro, Cato Censorius, Scrofa, Sarsenne both father and sonne, Domitius Calvinus, Hyginus, Virgill, Trogus, Ouid, Gracius, Columella, Tubero, L. Aruntius who wrote in Greeke of Astronomie, and *Cesar Dictator* who likewise wrote of the same argument, *Sergius Paulus, Sabinus Fabianus, M. Cicero, Calphurnius Bassus, Atteius Capito, Manlius Sura,* and *Actius* who compiled a booke called *Praxidica*.

Forreine Authours.

Hesiodus, Theophrastus, Aristotle, Democritus, K. Hiero, K. Philometor, K. Attalus, K. Archelaus, Archytas, Xenophon, Amphilocheus of Athens, Anaxipolis of Thafus, Aristophanes the Milesian, Apollodorus the Lemnian, Antigonus the Cymean, Agathocles of Chios, Apollonius of Pergamus, Aristander the Athenian, Bacchius the Milesian, Bion of Soli, Cherea of Athens, Charistius likewise the Athenian, Diodorus of Priene, Dion of Colophon, Epigenes of Rhodes, Evagoras the Thasian, Euphronius the Athenian, Andraton, Aschrio, and Lyfismachus, who wrote all three of Husbandrie, *Dionysius* that translated the works of *Mago*, and *Diophanes* who drew the same into an Epitome, *Thales, Endoxus, Philippus, Callippus, Dositheus, Permeniscus, Meliton, Criton, Oenopides, Zeno, Euclemon, Harpalus, Hecateus, Anaximander, Sotigenes, Hipparchus, Aratus, Zoroastres, and Archibius*.

THE NINETEENTH BOOKE CONTAINETH a discourse of the nature of Flax, and other wonderfull matters.

- Chap.*
1. The sowing of Line seed: diuers kinds of flax: how it is dressed: of naperie & napkins: of linnen that will not burne nor consume with fire: and when curtains were deuised at Rome about the theatres.
2. The nature of a kind of broom called Spart, when it came to be vsed first, how it is to be ordered & dressed, what plants both spring and also liue without roots.
3. Of Myfy, and of Mufhroms, of Tadstoles or Mufhromes that bee broad and without a taile called Pezici, of Laferpitium, and Magydaris, of Maddir, and the Fullers root Radicula, & Sopeweede.
4. The manner of dressing and trimming gardens: also the ordering and due placing of other plants good for to be eaten; ouer and

- Chap.*
31. Of vintage, and autumn, and the constitution thereof.
32. What regard is to be had in the moon and her age, in husbandrie.
33. The consideration of the winds for agriculture.
34. The bounds, limits, bawks, and waies, to be obserued in cornefields.
35. Signes whereby a man may prognosticate the disposition of the weather.

- Chap.*
besides corn, and the fruit of trees & shrubs.
5. The nature, the sundry sorts, and the stories of many plants that grow in gardens.
6. Of the roots, leaues, floures, and colours of garden herbes.
7. How many daies it will be after the seeds of herbes be sowne, or their slips set, ere they come vp: the nature of seeds: how herbes are to be sown or set, and in what course and ranke: which herbes are but one of a kinde, and which they be that haue many kinds.
8. The nature of such garden herbes as are good for the pot, or to make fallads, and to season meat withal: their kinds to the number of 46, with their stories & descriptions.
9. Of Fennell, and Hempe.
10. The diseases and maladies that annoy gardens:

Plinies Naturall Historie

- Chap.*
dens, the remedies against the same: as also how to kill ants, caterpillers, and gnats.
21. What seeds be more or lesse able to endure any hardnesse or inurie, and which they be that salt waters are good for.

In summe, here are comprised memorable things, stories, and obseruations, a thousand one hundred fortie and three.

Latine Authours cited.

M. Actius Plantus, M. Varro, D. Syllanus, Cato Censorius, Hyginus, Virgil, Mutianus, Celsus, Columella, Calphurnius Bassus, Manlius Sura, Sabinus Tyro, Licinius Maccr, Q. Hirtius, Vibius Rustus, Cestennius who wrote *Seiprica*, [i. a treatise of Gardening] *Castritius* likewise, and *Firminus*, (who both twaine made a worke of the same matter) and last of all *Petreus*.

Forreine Writers.

Herodotus, Theophrastus, Democritus, Aristomachus, Menander, (who wrote a booke intituled *Brochresta*, i. of things profitable for our life and diet) and *Anaxilaus*.

THE TWENTIETH BOOKE COMPRISETH medicines out of those Simples which are set and sowed in Gardens.

- Chap.*
1. Of the wild Cucumber, and the juice thereof Elaterium.
2. Of the Cucumber as wel that which wande- reth & groweth abroad called Anguinum, as that of the garden: also of the Pompion.
3. Of the wild gourds, and the Rape or Naves.
4. Diuers sorts of Naveses: of the wild Radish, of the garden Radish, and the Parsnep or Carot.
5. Of Staphylinum or the tame Parsnip. The herbe Gingidium or Chervill: of Sefelis or Siler-mountaine: of Elecampane, and of Onyons.
6. Of Porret or Leekes vsed to be cut, and of cabbage Leekes or headed, also of Garlicke.
7. Of wild Lettuce or Hawke-weed, called also Laetuca Caprina, of another kinde named Etopus, of Woad, & tame garden Lettuce.
8. Diuers kinde of Beets, of Endive, and Chicorie, of garden Endiue.
9. Of Cawle or Coleworts, of the wild Coleworts Lapsana, of Soldanella, of Squilla or the Sea-onion, of Scallions or Chibbols, and of Dog-leeks.
10. Of Sparage both tame and wild, of Libycum and Clarie.
11. Of Parsley, of Baulme, Smallage, & mountaine Parsley.
12. Of Alsanders, and garden Basill.

- Chap.*
13. Of wild Basill, of Rocket, of Cresses, and Rue.
14. Of wild Mints, of garden Mints, of Peniroyall, of Nep, and Cumin.
15. Of Aethiopian Cumin, which staieth vrine, of Capers, of Lovach, of Panace, of wild Origan or Majoram savage.
16. More of wild Oragan and Heracleotica, called also Gallinacea Cunila, i. Small majoram, Savorie or Orgament, Rosemarie, sweet Majoram of the garden and of the mountaine.
17. Of Cockweed, Pepperwort, or Dittander, of garden Origan, of a kinde of Orgament called Onitis of Prafon, of Tragoriganum or wild Peniroyall, the water Lillie or Nenuphar, of Lepidium, of Gith or Nigella Romana, and of Anise.
18. Of Dill, of Sacopanium, of Sagapen, of Poppies both white and blacke: the manner how to draw the juice of herbes: and of Opium.
19. Of the wild Poppie, of horned Poppie, of Glaucium or Paraliu, of Heraclium or Aphrum, of the confection Diacodium made of Poppie heads, of Tythimall.
20. Of Purcellane or Peplium, of Coriander and Orach.
21. Of Mallowes, and Malope, of Althaea or Marsh-mallow.

The first Booke of

Chap.

- Marshmallow, of Dockes, foure Docke or Sorell, the water Docke, the herbe Patience or Bulapathum.
22. Three kindes of Senvie, of Horehound, of running Thyme, of water Mints or Savorie, of Linefeed and Bleets.

In summe, there be comprised in this booke of medicines, stories, and obseruations, one hundred fixtie and seven.

Out of Latine Authors.

Cato Censorius, Mar. Varro, Pompeius Lenau, Gallio, Hyginus, Sextius Niger who wrote in Greeke, and *Iulius Bassus* likewise, who wrote in the same language, *Celsus*, and *Antonius Casar*.

Forreine Authours.

Democritus, Theophrastus, Orpheus, Menander who made the booke *Biochresta*, *Pythagoras*, and *Nicander*.

Out of Physicians.

*Nicander, Hippocrates, Chrysippus, Diocles, Ophion, Heraclides, Hicestus, Dionysius, Apollodorus of Tarentum, Apollodorus the Citien, Praxogoras, Philistonicus, Medius, Diennes, Cleophantus, Philistio, Asclepiades, Cratevas, Petronius, Diodorus, Iolla, Erasistratus, Diagoras, Andreas, Mnesicles, Epicharmus, Damion, Dalion, Sofimenes, Theopolemus, Metrodorus, Solon, Lycus, * Olympiades* of Thebes, *Phyllinus, Petreius, Miction, Glaucia* and *Xenocrates*.

* A woman who was a Midwife.

¶ IN THE XXI. BOOKE ARE CONTAINED the natures of Floures and Hearbs to make Guirlands of.

Chap.

1. The nature of floures and herbes that serue for Chaplets, the wonderfull varietie of floures.
2. Of Chaplets and neseaies of floures. Who first deuised to set floures in order one with another. When Coronets or Guirlands of floures were inuented and took their name, and vpon what occasion.
3. Who first gaue a present of a Chaplet garnished with siluer and gold foile. In what honor and estimation such Guirlands were in old time. The honour done of old to *Scipio*. Of Coronets or Chaplets platted, wrythed, and braided. Also of a notable act of queen *Cleopatra* in making of Chaplets.
4. Of Roses set in guirlands. Diuerse sorts of Roses, and where they be set and doe grow.
5. Three kinds of Lillies. The strange manner of setting them.
6. Of Violets, Marigolds, of Baccharis, Combretum, Astarabacca or Polefoot, and Saffron.
7. Of the floures vsed in antient time in Guir-

Chap.

- lands & Chaplets. The great diuersity that is in aromaticall and odoriferous simples: of Lavander, Spike, and Polium.
8. The colours of cloth resembling floures. Of floure-Gentle or Passee-velours: of Chrysome or Chrysites.
9. The honor done by Guirlands, and their excellencie: of Cyclaminum, of Melilot, of Claver or Trefoile, whereof there bee three sorts.
10. Of Origan, Thyme, Honey of Athens, of Doniza or Fleabane, of Iupiters floure, of Helenium or Elecampane, of Sothernwood, and Camomile.
11. Of Majoran, of Nyctigretum and Melilote, the white Violet or stocke Gilloffe, of Codiaminum, also of wild bulbs or Rampions, of Heliochrysum, & Lychnis or Rose Campion, and many other herbes growing on this side the sea.
12. The manner how to nourish and keepe Bees: of their maladies and remedies thereto.

13. Of

Plinies Naturall History.

Chap.

13. Of Honey that is venomous, remedies against such venomous Honey, as also against another kind thereof, which maketh folke to be mad that taste thereof.
14. Of a certain Hony that flies will not touch nor come neare to. Of Bee-hiues. The way how to keepe the Bees when they are at a fault for meat: and how their Wax is made.
15. Of herbes good to eat which come vp of their owne accord, and namely, those that are prickie.
16. Of Thyssles, of Parietarie of the wall, of Brambles and Orchanet.
17. The difference of many sorts of herbes in their leafe. Which they be that doe floure all the yeere long, of the Daffodill, of Pistana, and of the Gladen or Sword-grasse.
18. Of diuers sorts of Reeds, and of Cyperus, of the medicinable vertues which they haue, of Cypirus, and Squinanth.
19. The medicinable vertues of Roses, of the Lillie, of Narcissus, of the Violet, and of Baccharis or Ladies-gloues, of Combretum and Astarabacca.
20. Of Nard Celticke and Saffron, the vertues thereof and vse in Phvsicke, of the sweet ointment Crocomagma made of Saffron,

Chap.

- of Spike or Lauender, of Polium, and Flour de lis, of Heliochrysum, Chrysome, and Melilor.
21. Of sweet Trifolie, of Thyme, the wild yellow Lillie Hemerocallis or the day floure, of Elecampane and Sothernwood.
22. the medicinable vertues of Camomile and Marjoram.
23. The vertues of Corne Rose or Passee-flours Anemone.
24. The properties medicinable of Filipendula.
25. The vertues of Heliochrysum.
26. The medicines of Crowtoes.
27. The vertues of the Perywinckle, Butchers broome, of Sampier, and wild Basil.
28. The medicinable vertues of Colocasia, or the Egyptian Beane.
29. The properties of Anthalium.
30. The vertues of Fewerfue.
31. The vertues of Night-shade or Petie Morrell, and Alkakengi.
32. Of Corchorus, i. Chickweed, and of Cnicus, i. Carthamus or bastard Saffron.
33. Of the herbe Persoluta.
34. Of the weights and measures vsed in old time.

In summe, there be in this booke to be found medicines, stories, and worthy obseruations, seven hundred and thirtie.

Latine Authours alledged.

Cato Censorius, M. Varro, Massurius, Antias, C. Helius, Vestinus, Vibius, Rufinus, Hyginus, Pomponius Mela, Pompeius Lenau, Cornelius Celsus, Calphurnius Bassus, P. Largius, Licinius Macer, Sextius, and *Iulius Bassus*, who both wrote in Greeke, and *Antonius Casar*.

Forreike Writers.

Theophrastus, Democritus, Orpheus, Pythagoras, Mago, Menander who wrote the Treatise *Biochresta*, *Nicander, Homer, Hesiodus, Musaeus, Sophocles*, and *Anaxilaus*.

Physicians.

Mnesibius and *Callimachus*, who wrote both of Guirlands made of floures, *Phanias* the naturall Philosopher or Physician, *Simus, Timaristus, Hippocrates, Chrysippus, Diocles, Ophion, Heraclides, Hicestus, Dionysius, Apollodorus of Citia, Apollodorus of Tarentum, Praxagoras, Plistonicus* the Physician, *Diennes, Cleophantus, Philistio, Asclepiades, Cratevas, Petronius, Diodorus, Iolla, Erasistratus, Diagoras, Andreas, Mnesicles, Epicharmus, Damion, Dalion, Sofimenes, Theopolemus, Metrodorus, Solon, Lycus, Olympias* the midwife of Thebes, *Phyllinus, Petreius, Miction, Glaucia*, and *Xenocrates*.

A

¶ IN

The first Booke of

¶ IN THE XXII. BOOKE ARE CONTAINED discourses as touching the estima- tion of Herbes.

Chap.

1. Of certaine nations that vse herbes to beautifie their bodies.
2. Of clothes died with the iuice of herbes.
3. Of the Chaplet made of the common meadow grasse.
4. How rare these Guirlands of grasse were.
5. Which were the only men that had the honour to be crowned with the said Chaplets.
6. The onely Centurion allowed to weare the said Guirlands.
7. Medicinable vertues obserued in the rest of herbes and floures that serue for Guirlands, and first of Eringe or sea Holly.
8. Of the Thistle or hearbe which they call Centum-capita.
9. Of Acanus and Liquerice.
10. Of Brambles or Thistles called Tribuli, their kinds and vertues.
11. The vertues and properties of the hearbe Stoebe.
12. Of Hippophyes, and of Hippope, i. the Tazill, and their properties.
13. Of the Nettle and the medicinable vertues of it.
14. Of the white dead Nettle or Archangell Lamium, and the vertues of it.
15. Of the hearbe Scorpius or Caterpillers, the kinds and vertues thereof.
16. Of Leucacantha or our ladies Thistle, and the vertues of it.
17. Of Parietarie of the wall called Helxine or Perdicum, of Feuerfew or Motherwort, Par-

Chap.

- thenium, of Sideritis, i. wall Sauge or stona Sauge, and the vertues thereof good for Physicke.
18. Of Chamæleon, the sundry sorts and properties that it hath.
19. Of Coronopus, i. Crow-foot Plantaine or Buckhorn Plantain, and the vertues thereof.
20. Of Orchanet, as well the right as the bastard, and the vertues of them both.
21. Another kind of Orchanet called Onochelis, of Camomile, of the hearbe Lotus or common Melilot, of Lotometra, which is a kind of garden Lotus or fallade Clauer, of Heliotropia, i. Turnsole or Solcium, and Tricoccum, a kind thereof, of Maiden haire called Adiantum and Callitricum.
22. Of bitter Lettuce or wild Cichorie, of Thesium, of Daffodill, of Halimus, of Brankursine, of Buprestis, of Elaphoboscum or Gratia Dei, of Scandix, i. wild Cheruill or shepheards needle, of the wild wort lasonie, of bastard Persly, Caucais, of Lauer, or Sillybum, of Scolimus, i. the Artichoke or Limonia, of Sowthistle, of Chondrilla, and of Mushromes.
23. Of Roadstools, of Silphium, & of Laserjuice.
24. The nature of Hony, of Mead or Hydromel: how it commeth that the fashions are changed in certaine kinds of meat, of honied wine, of wax. A discourse against the composition of many simples.
25. The medicinable vertues of corne.

In summe, here you shall find of medicines, stories, and obseruations, 906, gathered out of

The same Authours which were named in this booke before, and besides out of *Chrysermus*, *Erastophanes*, and *Alcans*.

¶ IN THE XXIII. BOOKE IS CONTAINED a Treatise of Hort-yard trees.

Chap.

1. The medicinable qualities of grapes fresh and new gathered, of Vine cuttings and of grape kernils, of the grape Theriace, or Treacle Grape, of dried Grapes or Raisins, of Astataphus, of Stauefacre, cal-

Chap.

- led also Pituitaria, of the wild Vine, of the white Vine which is called Bryonic, of the blacke Vine, of new wines, of diuerse and sundry sorts of wines, and also of vinegre.

2. Of

Plinies Naturall Historie.

Chap.

2. Of the medicinable vertues of vinegre Squillicke, of Oxy mell or honied vinegre, of cuit, of the dregs or lees of wine, vinegre, and cuit.
3. The vertue of Oliues, of the leaues of the Oliue, of the floure and ashes of the Oliue, of the white and blacke fruit of the Oliue: also of the dregs or grounds of oile.
4. Medicinable properties obserued in the leaues of the wild Oliue, of the oile made of the wild vine floures, of the oile Cicinum, the oiles of Almonds, Baies, and Myrtles, the oile of Chamamyrsine or grand Myrtle, also of Cypresse, of Cytrons, & walnuts, &c.
5. The Egyptian Palm tree that beareth Ben,

Chap.

- also of the Date tree called Elate, and the vertues of them.
6. The medicinable vertues of sundry plants, namely, in their floure, leafe, fruit, boughs, barke, wood, iuice, root, and ashes.
7. Of peares, and the obseruations to them belonging, of Figges both wild and sauage: of Erineum, and other sorts of plants, with their vertues.
8. Of Pine-nuts, and Almonds, of the Filbard and Walnut, of Fisticke and Chestnuts, of Charobs, Corneiles, Strawberry trees, and Baies.
9. Of the Myrtle gentle, of Myrtidatum, and the wild Myrtle.

In summe, there be noted in this booke medicines, stories, and obseruations, a thousand foure hundred and nineteene.

Latine Authours cited.

C. Folgius, *Pompeius Lenæus*, *Sextius Niger*, and *Iulius Bassus*, who wrote both in Greeke, *Antonius Castor*, *M. Varro*, *Cornelius Celsus*, and *Fabianus*.

Forreine Writers.

Theophrastus, *Democritus*, *Orpheus*, *Pythagoras*, *Mago*, *Menander* the author of the booke *Biochrestia*, *Nicander*, *Homer*, *Hesiodus*, *Museus*, and *Anaxilaus*.

Physicians.

Mnesibius, *Callimachus*, *Phanias* the naturall Philosopher, *Simus*, *Tamaristus*, *Hippocrates*, *Chrysippus*, *Diocles*, *Ophion*, *Heracides*, *Hicetius*, *Dionysius*, *Apollodorus* the Tarentine, *Praxagoras*, *Plistonius*, *Medius*, *Dieuches*, *Cleophrastus*, *Philistio*, *Asclepiades*, *Craterus*, *Petronius*, *Diodorus*, *Iolla*, *Erasistratus*, *Diagoras*, *Andreas*, *Mnesicles*, *Epicharmus*, *Damion*, *Dalion*, *Sosimenes*, *Theopolemus*, *Metrodorus*, *Solon*, *Lycus*, *Olympias* the midwife of Thebes, *Phyllinus*, *Petreus*, *Miction*, *Glauca*, and *Xenocrates*.

THE XXIII. BOOKE TREATETH OF Trees growing wilde.

Chap.

1. Medicinable vertues obserued in wild trees.
2. The Egyptian Beane tree, Lotus.
3. Mast and Acornes.
4. The grain or berrie of the tree Ilex, of Gals, of Mistleto, of little bals and mast of trees, the root of Cirrus, and of Corke.
5. Of the Beech, the Cypresse tree, the tall Cedar, the fruit or berry thereof, and of Galbarum.
6. Of Ammoniacum, Storax, Spondylium, Spagnus, the Terebinth tree, of Chamæpitys or Iva Muscata, of Efula or Pityusa, of Rosins, of the Pitch-tree and the Lentiske.

Chap.

7. Of stiffe Pitch, of Tarre, of Pitch twice boyled, of Pissaspalt, of Sopissa, of the Torch tree and Lentiske.
8. The vertues of the Plane tree, the Ash, the Maple, the Aspe, the Elme, the Linden tree or Teil, the Elder, and Iuniper.
9. Of the Willow, the Sallow Amerina, and such like, good for windings and bands, also of Heath or Ling.
10. Of Virga Sanguinea, of the Oisier, of the Priuet, the Aller, of Yvie, of Cistus or Cifus, of Erythranum, of ground Yvie or Alchouffe, of Withwind, of Perwinke or Lesseron.

A 2

11. Of

The first Booke of

Chap.

11. Of Reeds, of Paper cane, of Ebenc, of Oleander, of Rhus or Sumach, of Madder, of Alyfium, of Sopeweed, of Apaynum, of Rosemarie and the seed thereof, of Selago, of Samulus, of Gums, and the medicinable vertues of them all.
12. Of the Arabian thorne or thistle, of Bedegnar, of Acanthium and Acacia.
13. Of the common and wild thistle, of Eryficeptum, of the thorne or thistle Appendix, of Pyxacanthum or the Barbarie tree: of Palium, of the Holly, of the Eugh tree and other bushes, with their vertues in Physicke.
14. Of the sweet Brier or Eglantine, of the Repice bush, of the white bramble Rhamnus, of Lycium, of Sarcocolla, of the composition named Oporice, and all their medicines.
15. Of Germander, of Perwinke or Lowrie, of Chamalea or Oliuell, of Chamafyce, of ground vyie, of Lauander Cotton, of Ampeloprasos or Vine Porret, of Stachys or wild Sauge, of Clinopodium or Horfe-

Chap.

- time, of Cudweed, of Perwinke of Egypt, and their properties.
16. Of Wake-Robin, of Dragonwort or Serpentine of the garden, the greater Dragonwort, of Arisaron, of yarrow, and Millefoile: of bastard Nauew, of Myrrhis, and Onobrychis, with their vertues.
17. Of Coriacea, Callicia, and Menais, with three and twentie other hearbes, and their properties, which are held by some to serue in Magick. Of Confidia and Aproxis: with others that reduce and reuiue loue againe.
18. Of Eriphia, Lanaria, and water Yarrow, with their vertues.
19. Of the herbes that growe vpon the head of statues and Images, of the hearbes that come out of riuers, of the herbe called Lingua simply, i. the tongue: of herbes growing within sieues, and vpon dnnghils, of Rhodora, of the herbe Impia, i. the child before the parents, of the herbe Peccen veneris, of Nodia, of Cleiuers or Goose Erieth, of Burs, of Tordile, of Dent de chien or Quiches, of Dactylus and Fenigreek, with their vertues.

In summe, herein are comprised medicines, stories, and obseruations, a thousand foure hundred and eightene: collected out of

Latine Authors.

C. Volgius, Pompeius Lenaeus, Sextius Niger, and Iulius Bassus, who wrate both in Greeke; Antonius Castor, M. Varro, Cornelius Celsus, and Fabius.

Forreine Writers.

Theophrastus, Apollodorus, Democritus, Orpheus, Pythagoras, Mago, Menander the author of the booke Biochresta, Nicander, Homer, Hesiodus, Musaeus, Sophocles, and Anaxilans.

Physicians.

Mnestheus, Callimachus, Phanius the naturall Philosopher, Simo, Timaristius, Hippocrates, Chrysippus, Diocles, Ophion, Heraclides, Hicesius, Dionysius, Apollodorus of Cittia, Apollodorus the Tarentine, Praxagoras, Plistonius, Medius, Diencubus, Cleophrantus, Philistio, Asclepiades, Craterus, Petronius Diodorus, Iolla, Erasistratus, Diagoras, Andreas, Mnesticles, Epicharmus, Damion, Sosimenes, Theopolemus, Selon, Lycus, Metrodorus, Olympias the Midwife of Thebes, Phyllinus, Petreus, Maction, Glaucia, and Xenocrates.

¶ IN THE XXV. BOOKE ARE CONTAINED
the natures of hearbes and weeds that come vp of themselues.

The reputation that hearbes haue been of. When
they began first to be used.

Chap.

1. The properties and natures of wild herbes growing of their owne accord.
2. What Authours haue written in Latine of

Chap.

the nature and vse of hearbes. When the knowledge of simples began first to be practised at Rome. What Greeke Authours first

Plinies Naturall History.

Chap.

- first wrote of herbes, the inuention and finding out of sundry hearbes, the Physicke of old time. What is the cause that Simples are not so much in request and vse for Physicke as in old time. The medicinable vertues of the Eglantine and Serpentry or Dragon.
3. Of a certaine venomous fountaine in Almaine, the vertues and properties of the herbe Britannica, what diseases cause the greatest paines.
4. Of Moly, of Dodecatheos, of Pæonium, named otherwise Pentorobus, and Glycyfide, of Panace or Asclepios, of Heraclium, of Panace Chironeum, of Panace Centaureum or Pharnaceum, of Heraclium Siderium, of Henbane.
5. Of the herbe Mercurie female, of Parthenium, of Hermu-Pœa, or rather Mercurie: of Yarrow, of Panace Heracleum, of Sideritis, of Millefoile, of Scopa regio, of Hemionium, Teucrium, Splenium, Melampodium or blacke Ellebore, and how many kinds there be of them. The medicinable vertues of blacke and white Ellebore: when Ellebore is to be giuen, how it is to be taken, to whom it is not to be giuen, also that it killeth Mice and Rats.
6. Of Mithridatium, of Scordotis or Scordium, of Polemonia, otherwise called Phileteria or Chilibodina, of Eupatorie or Agrimonie, of great Centaurie otherwise called Chironium, of the lesse Centaurie or Libadium, called Fel Terræ, i. the gall of the Earth. Of Triorches, and their vertues.
7. Of Clymenus, Gentian, Lyfimachia and Parthenius or Motherwort, Mugwort, Ambrose, Nenuphar, Heraclium, and Euphor-

Chap.

- bia, with all their vertues medicinable.
8. Of Plantaine, Buglosse, Hounds tongue, Oxe-eye or May weed, of Scythica, Hippice and Ischamion, of Beronie, Cantabrica, Serratwort, of Dittander or Hiberis, of Celendine the greater, Celendine the lesse or Pilewort, of Canaria, of Elaphoboscus, of Dictamnium, of Aristolochia or Hartwort, how fishes will come to it for loue of bait, and so are soone caught. The counterpoysons against stinging of serpents, by these herbes abouenamed.
9. Of Argemonia, of Agaricke, Echium, Henbane, Vervaine, Blattaria, Lemonia, Cinquefoile, Carot, Persalata, the Clot Burre, Swines bread or Cyclaminus, Harstrang: all very good for the sting of serpents.
10. Of Danewort or Walwort, of Mullin, of Thelyphonon. Remedies against the sting of Scorpions, the biting of Toades and mad Dogs, and generally against all poysons.
11. Receipts and remedies against head-ach and diseases of the head.
12. Of Centaurie, Celendine, Panace, and Henbane, and Euphorbium, all soueraigne medicines for the eyes.
13. Of Pimpernell or Corchorus, of Mandragoras or Circeum, of Henbane, of Crethmoagrimon, of Molybdæna, of Fumiterre, of Galengale, of Floure de lis, of Cotyledon, or Vmbilicus Veneris, of Housleeke or Sengreene, of Pourcellane, of Groundswell, of Ephemerum, of great Tazill, of Crow-foot: which affoord medicines against the infirmities and diseases of the eyes, cares, nostrils, teeth, and mouth.

In summe, this Booke doth yeeld of medicines, stories, and obseruations, a thousand two hundred ninetie and two.

Latine Authours cited.

M. Varro, C. Volgius, Pompeius Lenaeus, Sextius Niger, and Iulius Bassus, who both wrote in Greeke; Antonius Castor, and Cornelius Celsus.

Forreine Writers.

Theophrastus, Apollodorus, Democritus, king Iuba, Orpheus, Pythagoras, Mago, Menander who wrote Biochresta, Nicander, Homer, Hesiodus, Musaeus, Sophocles, Xanthus, and Anaxilans.

Physicians.

Mnestheus, Callimachus, Phanius the naturall Philosopher, Timaristius, Simo, Hippocrates, Chrysippus, Diocles, Ophion, Heraclides, Hicesius, Dionysius, Apollodorus the Tarentine, Praxagoras, Plisto.

The first Booke of

Plistonicus, Medius, Dieneches, Cleophrantus, Philistio, Asclepiades, Cratenas, Iolla, Erasistratus, Diagoras, Andreas, Mnesicles, Epicharmus, Damion, Theopolemus, Metrodorus, Solon, Lycus, Olympias the midwife of Thebes, *Phyllinus, Petreius, Miction, Glaucias* and *Xenocrates*.

¶ IN THE XXVI. BOOKE ARE CONTAINED the medicines for the parts of mans bodie.

Chap.

1. Of new maladies, and namely of Lichenes, what they be, and when they began to raige in Italie first. Of the Carbuncle, of the white Morpew or Leprosie called Elephantiasis, and of the Collicke.
2. The praise of *Hippocrates*.
3. Of the new practise in Physicke, of the Physician *Asclepiades*, and by what meanes hee abolished the old manner of practise, and set vp a new.
4. The superstitious follie of Magicke is derided. Also a discourse touching the foule tetter called Lichenes, the remedie thereof: and also the infirmities of the throat and chawes.
5. Receipts and remedies against the kings euil: also for the diseases of the fingers and the breast, and against the Cough.
6. Of Mullin, of Cacalia, of Tusilage or Fole-foot, of Bechium, and Sauge, all herbes for to cure the cough.
7. For the paines of the sides and chist, for the difficultie of breath, and those that cannot take wind but sitting or standing vpright, for the pains of the liuer and the heart-ach, medicines appropriat to the lungs, difficultie of vrine, and the cough, for the breast, for inward vlcers, for the kidnies and imbecillitie of the liuer, to stay vomit and yexing, also for the pleurisie and disease of the sides and flankes.
8. Of all diseases of the bellie and the parts either within it or neare vnto it. How to stay the flux thereof, or to make it loofe and soluble.
9. Of Peniroidall and Argemone.
10. Of water Lillie or Nenuphar, of abstinence

Chap.

- from *Venus*, of prouocation to fleshly lust, of Ragwort or Saryrium, called Erythraicum, of Crategis and Syderitis.
11. Generall remedies for infirmities of the feet, anckles, joints, and sinewes. Remedies against diseases that hold and possesse the whole bodie. Of Mirthryda. Medicines and meanes to procure sleepe: against the palfe, agues with cold fits, feauers or agues incident vnto labouring Horses, Asses, and Mules: against franticke persons. Of the herbe *Chamaecta*, of Houslecke or stonecrop, and Pricke-madame, of *S. Antonies* fire.
 12. Remedies against dislocations in the joints, against the yellow jaundise, fellons, fistulaes, swelling of ventositie, burnes, scalds, and other diseases, for sinewes, and to stanch blood.
 13. Of the herb called Horse-taile, Nenuphar, Harstrange, Syderitis, of many other remedies good to restraine the flux of blood: of *Stephanomelis* and *Erisithale*, remedies against the wormes.
 14. For vlcers, old sores, and greene wounds: to take away werts, and of the herbe *Polycnemon*.
 15. Many good experiments either for to prouoke or to stay the flux of womens months: souveraigne remedies for the diseases of the matrice: also to cast forth the fruit within the wombe, or to containe it the full time, for to take away the blemishes and spots in the skin, and namely of the face, to colour the haire, to cause the haire to fall, also against the scab or maunge of foure-footed beasts.

In summe, this booke leadeth you to medicines, stories and obseruations, a thousand two hundred ninetie and two: collected out of

Latine Authours.

M. Varro, C. Volgius, Pompeius Lenaus, Sextius Niger, and Iulius Bassus, who writ both in Greeke, *Antonius Castor*, and *Cornelius Celsus*.

Forreine

Plinies Naturall History.

Forreine Writers.

Theophrastus, Apollodorus, Democritus, Iuba, Orpheus, Pythagoras, Mago, Menander the author of *Biochrestia*, *Nicander, Homer, Hesiodus, Musaeus, Sophocles, Xanthus* and *Anaxilaus*.

Physicians.

Mnestheus, Callimachus the professour of Physicke, *Timaristius, Simus, Hippocrates, Chrysippus, Dioacles, Ophion, Heraclides, Aicesius, Dionysius, Apollodorus* the Tarentine, *Praxagoras, Plistonicus, Medius, Dieneches, Cleophrantus, Philistio, Asclepiades, Cratenas, Iolla, Erasistratus, Diagoras, Andreas, Mnesicles, Epicharmus, Damion, Theopolemus, Metrodorus, Solon, Lycus, Olympias* the Midwife of Thebes, *Phyllinus, Petreius, Miction, Glaucias* and *Xenocrates*.

¶ THE XXVII. BOOKE COMPREHENDETH all other sorts of herbes.

Chap.

1. The rest of Herbes.
2. Of Aconitum, and how this herbe killeth Leopards or Panthers.
3. That God is the Creator of all things.
4. Of the hearbe *Aethiopsis*, *Ageratum*, *Aloe*, *Alcea*, *Alypum*, *Alfine*, *Androsacum*, *Androcemon*, *Ambrocia*, *Reitharrow*, *Anagyron*, and *Anonymon*.
5. Of the great Burre, Of Cliuers or Goosegrasse, *Asplenium*, *Asclepias*, or Swallow-wort, *Aster* or *Bubonium*, *Ascyrum* or *Acyroides*, *Aphace*, *Alcidium*, and *Cockes combe*.
6. Of *Alus*.
7. Of sea Weeds or Reits, of Elder, wild Vine, and Wormewood.
8. Of Ballote or stinking Horehound, of *Botrys* or *Oke* of Ierusalem, of *Brabyia*, of *Bryon* or *Corallina*, of *Bupleuron*, and *Catanance*, of *Calla*, *Cerceia*, *Cirsium* and *Cratægionum*, *Thelygonum*, *Crocodilium*, *Dogs stone*, *Chrysolachantum*, *Cucubalum*, and *Conferua* or the riuer Sponge.
9. Of the graine called *Coccos*, *Gnidia*, of *Tazill*, of *Oke* fearne, of *Dryophonum*, of *Elatine*, of *Empetrum* or *Perce-Pierre*, of *Epipatus* or *Elleborus*, of *Epimedium*, *Enneaphyllon*, i. the nine leaved herbe, of *Omund* or fearne, of *Fenmur* *Bubulum*, i. Ox thigh, of *Galeopsis* or *Galeobdolon*, of *Glaux* or *Eugalastrum*.

Chap.

10. Of *Glaucium*, of *Pæonie*, Cudweed or *Chamaezelum*, of *Galedragum*, *Holcos*, *Hyosiris*, *Holosteum*, and *Hypophæstum*.
11. Of *Hypoglossa*, and *Hypecoon*, *Idæa*, *Isopyron*, Spurge, *Pat-delion*, *Lycopsis*, *Greimile*, &c.
12. Of *Medium*, *Moufe-eare*, *Myagros*, an herb called *Natrix*, *Othone*, *Onosma*, *Onopordos*, *Toads flax*, *Woodsoore* or *Alleluiah*, *Crowfoot*, *Knotgrasse*, *Camomile*, *Phyteuma*, *Phyllon*, *Phellandrium*, *Phalaris*, *Polyrhizon*, *Proserpinaca* or *Knotgrasse*, *Rhacoma*, *Refeda* and *Stoechas*.
13. Of *Nightshade* and *Dwale*, of *Smyrnum*, *Orpinum*, *Trichomanes*, *Thalietrum*, *Thlaspi*, *Tragonias*, *Tragonis* and *Tragopogon*, the serpent *Spondylis*. To conclude, that some diseases and venomous things be not in all countries.

In summe, herein are comprehended medicines, stories, and notable obseruations, 702.

Latine Authours cited.

Pompeius Lenaus, Sextius Niger, and Iulius Bassus, who wrate both in Greeke, *Antonius Castor* and *Cornelius Celsus*.

Greeke Writers.

Theophrastus, Apollodorus, Cittiensis, Democritus, Aristogiton, Orpheus, Pythagoras, Mago, Menander that wrote the Treatise *Biochrestia*, and *Nicander*.

Physicians.

Mnestheus and his fellowes, as they went in the former booke.

¶ IN THE XXVIII. BOOKE ARE COMPRE-
hended the medicinable vertues from
living creature.

Chap.

1. The medicines and vertues obserued in li-
ving creatures.
2. Whether charmes and bare words or cha-
racters auail ought in Physicke. The pro-
digious tokens and presages may take effect
in some, and may be auerted and made fru-
strate by others.
3. Remedies euen in the bodies of men against
enchautments and Magicke.
4. Of certaine forceries, also the vertue of a
mans spittle.
5. The regard of diet for a mans health.
6. Of incesing, the moderation to be vsed in
the act of Venus or companie with a woman,
of other preseruatiues of health.
7. What remedies and medicines a womans
mans bodie doth affourd.
8. The medicinable properties in certaine
strange beasts, namely, the Elephant, Lion,
Cammell, Hyæna, Crocodile, Chamæle-
on, Skinke, Riuer-horse, and Once.
9. The medicines which we haue from the bo-
dies of wild beasts and tame of the same
kind. The vertue of milk, butter, and cheese,
the obseruations thereto belonging: also of
fat or grease.
10. Remedies receiued from Bores and Swine,
from Goats and wild Horses: also from o-
ther beasts, seruing to cure all manner of
diseases.
11. Other remedies for many kinds of mala-

Chap.

- dies, taken from liuing creatures.
12. For the spots and wems in the visage: for
the infirmities of the necke and of the
breast.
13. Against the diseases of the stomacke,
loines, and reines.
14. To stay a laske, against the loosenesse of
the stomacke, to cure the bloudie flux: the
inflations of the bellie, ruptures, the prouo-
cation to the scege without effect, the broad
flat long wormes in the bellie, and the col-
licke.
15. Against the torments and paines in the
bladder, against the stone, the infirmities in
the priue parts of man or woman: as also
in the fundament, and the twist or groine,
and the cure thereof.
16. For the gout, the falling euill, for those
that bee blasted or stricken with a planer,
and bones broken.
17. Against Melancholie, and those whose
braines bee troubled with fantasies, the le-
thargie, drop sic, wild fire or tetter, and the
paines or ach of the sinewes, apt reme-
dies.
18. To staunch blood, to cure vlcers or old
fores, cankers and scabs.
19. Medicines appropriat to womens disea-
ses.
20. Strange and wondrous things obserued in
fundry beasts.

In summe, here be reported medicines, stories, and obseruations, to the number of a hundred
eightie and five.

Latine Authours alledged,

M. Varro, L. Piso, Fabianus, Verres, Antias, Verrius Flaccus, Cato Censorius, Seruius Sulpitius, Lici-
nius Macer, Celsus, Massurius, Sextius Niger who wrate in Greeke, Bythus the Dynrhachian, Ophilus
the Physitian, and Granus the Physitian.

Forreine Writers,

Democritus, Apollodorus who wrate a book entituled Myrsis, Miletus, Artemon, Sextilius, Antaus,
Homer, Theophrastus, Lyfimachus, Attalus, Xenocrates who wrate a booke called Diophros, and Ar-
chelaus likewise that wrate such another, Demetrius, Sotira, Elephantis, Salpe, and Olympias of
Thebes, five women and midwiues, Diotimus, Iolla, Mithion of Smyrna, Eschines the Physician,
Hippocrates, Aristotle, Metrodorus, Icacidus the Physitian, Hesiodus, Dialcon, Caelius, Bion the authour
of the booke Peri Dynamæan, Anaxilaus, and king Inba.

¶ IN THE XXIX BOOKE ARE CONTAINED
medicines from other liuing creatures.

Chap.

1. The first beginning and originall of the Art
of Physicke: when Physicians began first to
visit Patients lying sicke in their beds: the
first Physitians that practised the cure of
sick persons, by frictions, ointments, baths,
hot-houses, &c. Of Chrysippus and Erasistratus
their course and manner of practise: of
Empiricke Physicke: of Herophilus and o-
ther famous Physitians: how often the Art
and state of Physicke hath altered: the first
professed Physician at Rome: when it was
that hee practised: what opinion the anci-
ent Romans had of Physicians: finally the
imperfection and faults in that Art.
2. The medicinable vertues and properties
obserued in wooll.
3. The nature of eggs, and the vertues thereof

Chap.

- good in Physicke.
4. Remedies in Physicke receiued from doggs
and other creatures that are not tame but
wild: also from foules: and namely against
the stings of the venomous spiders Phalan-
gia.
5. Of the Ostrich greace, and the vertues ther-
of: of a mad dog: also remedies had from
him, a lizard, geese, doves, and weasils.
6. Medicines against the falling of the haire,
and to make it grow againe: to kill nits: to
recouer the haire of the eye-lids: to cure the
dimnesse and rednesse, and generally all di-
eases and accidents of the eyes, as also the
swellings and inflammations in the kernils
vnder the eares.

In sum, there be medicines and other things worth obseruation in this booke, to the num-
ber of five hundred twentie and one.

Latine Authors alledged,

M. Varro, L. Piso, Verrius Flaccus, Antias, Nigidius, Cassius Hemina, Cicero, Plautus, Celsus, Sextius
Niger who wrote in Greeke, Caelius the Physician, Metellus Scipio, Ovid the Poet, and Licini-
us Macer.

Forreine Authours.

Philopater, Homerus, Aristotle, Orpheus Democritus, Anaxilaus.

Physicians.

Botrys, Apollodorus, Archidemus, Anaxilaus, Arifon, Xenocrates, Diodorus, Chrysippus the Philo-
sopher, Horus, Nicander, Apollonius of Pytane.

¶ IN THE XXX. BOOKE ARE CONTAINED
medicines for liuing creatures, such as were not obserued
in the former Booke.

Chap.

1. The beginning of the black Science & Art
magicke, when it began, who practised it
first, and who were they that brought it in-
to request and reputation. Also the rest of
the medicines taken from beasts.
2. Sundrie kinds of Magicke: the execrable
and cursed parts plaid by Nero, and of Ma-
gicians.
3. Of Wants or Mouldwarps: of liuing crea-
tures as well tame as sauage which affourd

Chap.

- remedies, and those are digested in order
according to the diseases.
4. How to make the breath sweet: against mols
and spots disfiguring the face: remedies
for to cure the diseases of the throat and
chaws.
5. Against the Kings euill, and namely when
the swelling is broken and doth run: to ease
the pain of the shoulders, the heart and the
parts about it.

The first Booke of

Chap.

6. For the diseases of the lungs and liver: also to cure the casting and reiection of bloud vpward.
7. Remedies for the bloudie flux, and generally for all diseases of the bellie and the guts.
8. For the gravell and stone, for paines of the bladder, for swelling of the stones and rhe groine, of apostemes or swellings in the kernels and emun stories.
9. Against the gout of the feet and paines of other ioyns.
10. Remedies against many diseases that hold the whole bodie.
11. Against the jaundise, the phrensic, fevers,

Chap.

- and dropfie.
12. Against the wild fire, carbuncles, fellons or vncoms, burnes, scaldings, and shrinking of the sinews.
13. To staunch bloud, to allay swellings in wounds: also to cure vlcers, greene wounds, and other maladies, diverse remedies, all taken from liuing creatures.
14. To cure womens secret maladies, and to helpe conception.
15. Many receits and remedies huddled together one with another.
16. Certaine miraculous things obserued in beasts.

In summe, this booke sheweth vnto vs medicines and memorable obseruations 54.

Latine Authors cited.

M. Varro, Nigidius, M. Cicero, Sextius Niger who wrate in Greeke, and *Licinius Macer*.

Forreine Writers.

Eudoxus, Aristotle, Hermippus, Homer, Apion, Orpheus, Democritus, and Anaxilaus.

Physicians.

Botrys, Horus, Apollidorus, Menander, Archimedes, Ariston, Xenocrates, Diodorus, Chrysippus, Nicander, Apollonius, Pitinaus.

¶ THE XXXI. BOOKE SHEWETH MEDICINES gathered from fishes and water creatures: also it deliuereth vnto vs strange and wonderfull things as touching the Waters.

Chap.

1. Admirable matter obserued in the waters.
2. The difference of waters.
3. The nature and qualitie of waters: how to know good and wholesome waters from them that be naught.
4. The reason of some waters, that spring on a suddain, & so likewise cease and giue ouer.
5. Many historicall obseruations of waters.
6. The manner of water conduits, and how to draw them from their heads: when and how waters are to beeu'd which naturally are medicinable: how farre forth navigation or sailing vpon the salt water is good for the

Chap.

- health: medicines made of sea water.
7. Divers kinds of salt: the preparing and making thereof, together with the vertues medicinable of salt, and other considerations thereto belonging.
8. Of the fish Scamber or the Mackrell: of fish pickle: of Alex, a kind of brine or fish sauce
9. The nature of Salt, and the medicines made of it.
10. Sundrie sorts of Nitre, the handling and preparation thereof, the medicines and obseruation to it pertaining.
11. The nature of Spunges.

This booke comprehendeth medicines and notable obseruations 266.

Latine Authours alledged.

M. Varro, Cassius of Parma, Cicero, Mutius, Cor. Celsus, Trogus, Ouid, Polybins, and Sornatius.

Forreine Writers.

Callimachus, Cretias, Eudicus, Theophrastus, Eudoxus, Theopompus, Polyclitus, Inba, Lycus, Apion, Epigenes,

Plinies Naturall Historie.

Epigenes, Pelops, Apelles, Democritus, Thrafillus, Nicander, Memander the Comickall Poet, *Attalus, Sallustius, Dionysius, Andreas, Nicreatus, Hippocrates, Anaxilaus.*

¶ IN THE XXXII. BOOKE ARE CONTAINED other medicines behind, from fishes and water creatures.

Chap.

1. Of the fish Echeneis, his wonderfull proprietie: of the Torpedo, and the Sea-hare: marvellous things reported of the red sea.
2. The naturall industrie, docilitie, and gentleness of some fish: where they will come to hand and take meat at a mans hand: in what countries fishes serue in stead of oracles.
3. Of those fishes that liue both on land and water: the medicines and obseruations as touching Castoreum.
4. Of the sea Tortoise: many vertues medicinable obserued in sundry fishes.
5. Receits of medicins taken from water creatures, digested and set in order according to sundry diseases, & first against poyson and

Chap.

- venomous beasts.
6. Of Oysters, Purple shell-fishes, & sea-weeds called Reits: their vertues medicinable.
7. Medicins against the shedding of the haire: how to fetch haire againe: also against the infirmities of eies, ears, teeth, and to amend the vscemely spots in the face. (ly.)
8. Many medicins set down together vnder order.
9. Remedies for the diseases of the liuer and sides, stomacke and bellie: others also disorderly put downe.
10. Against feuers and agues of all sorts, and many other infirmities.
11. A rehearsall of all creatures liuing in the sea, to the number of 122.

In summe, y e haue here medicines, stories, and obseruations, 928.

Latine Authore.

Licinius Macer, Trebins Niger, Sextius Niger who wrote in Greeke, *Ouid* the Poet, *Cassius Hemina, Mecanas, and L. Atteius.*

Forreine Writers.

*K. Inba, Andreas, * Salpe, Pelops, Apelles* of Thafos, *Thrafillus, and Nicander.*

* A Woman.

¶ THE XXXIII. BOOKE DECLARETH the natures of Mettals.

Chap.

1. In what estimation were the mines of gold at the first in the old world: the beginning of gold rings: the proportion of gold that our ancestors had in their treasure: the degree of knights or gentlemen at Rome: the priuiledge to weare gold rings, and who only might so do.
2. The courts and chambers of judges or justices at Rome: how often the gentlemen of Rome and men of armes changed their title: the presents giuen to valiant souldiours for their braue seruice in the wars: the first crowns of gold that were seene.
3. The ancient vse of gold besides, both in men & women: of the golden coine: when copper and brasse money was first stamped: when gold and siluer was put into coine: before mony was coined, how they vsed brasse

Chap.

- for exchange in old time. At the first taxation and leuie made of Tribute, what was thought to be the greatest wealth; and at what rate were the best men fessed. How often and at what time gold grew into credit and estimation.
4. The mines of gold, and how naturally it is found: when the statue or image of gold was first seene: medicinable vertues in gold.
5. Of Borras, and six properties of Borras in matters of Physicke: the wonderfull nature that it hath to foder all mettals, and giue them their perfection.
6. Of Siluer, Quick-siluer, Antimonie, or Alabaster: the droffe or refuse of siluer: also the scum or some of siluer called Litharge.
7. Of Vermilion: in what account it was in old time among the Romanes: the inuention thereof:

The first Booke of

Chap.

- thereof: of Cinnabaris or Sangdragon vsed in painting and Physick: diuers sorts of vermillion, and how painters vse it.
8. Of Quick siluer artificiall: the maner of gilding siluer: of touchstones: diuers experiments to trie siluer: the sundry kinds thereof.
9. Of mirroirs or looking-glasses: of the siluer in Egypt.
10. Of the excessiue wealth of some men in money: who were reputed for the richest men: when it was that at Rome they began to make largeesse and scatter money abroad

Chap.

- to the commons.
11. Of the superfluitie of coine, and the frugality of others as touching siluer plate, beds and tables of siluer: when began first the making of excessiue great and massiue plat- ters and chargers of siluer.
12. Of siluer statues: the grauing and chasing in siluer, & other workmanship in that mettall.
13. Of Sil, of Azur, of superfiue Azur named Nestorianum: also of the Azur called Cœ- lum: that euery yere these kinds be not sold at one price.

This booke hath in it of medicines, stories, and obseruations, 1215.

Latine Authors alledged.

L. Piso Antius, Verrius, M. Varro, Cor. Nepos, Messala, Rufus, Marcius the Poet, Butus, Iulius Bassus, and Sextius Niger, (who wrote both of Physicke in Greeke) and *Fabius Vestalis*.

Forreine Writers.

Democritus, Metrodorus Scepius, Menecchmus, Xenocrates, and Antigonus, who wrote all three of the feat and skill of grauing, chasing and embossing in mettall: *Heliodorus*, who wrote a booke of the rich ornaments and oblations of the Athenians: *Pasiteles*, who wrote of wonderfull pieces of worke: *Nymphodorus, Timæus* who wrote of Alchymie or minerall Physicke: *Iolla, Apollodorus, Andreas, Heraclides, Diagoras, Botryenſis, Archimedes, Dionysius, Aristogenes, Democritus, Mnesicles, Attalus* the Physician, *Xenocrates* the sonne of *Zeno*, and *Theomnestus*.

¶ THE XXXIIII. BOOKE TREATETH of other Mettals.

Chap.

1. Mines of Brasse, Copper, Iron, Lead, & Tin.
2. Sundry kinds of Brasse, namely Corinthian, Deliacke, and Aegineticke.
3. Of goodly candlesticks, & other ornaments of temples.
4. The first images made at Rome: the originall of statues: the honour done to men by statues: sundry sorts and diuers forms of them.
5. Of statues pourtraied in long Robes, and of many others who first erected images vpon columnes and pillars at Rome: when they were allowed first at the cities charges: also what maner of statues the first wer at Rome.
6. Of statues without gowne or cassocke, and howe other: the first statue pourtraied on horsebacke at Rome: when the time was that all Images as well in publike places as priuat houses were abolished at Rome and put downe: what women at Rome were allowed to haue their statues, and which were the first erected in publike place by forreine nations.

Chap.

7. The famous workemen in making & casting Images: the excessiue price of Images: of the most famous and notable colosses or gyant-like images in the citie of Rome.
8. Three hundred sixtie and six peeces of work wrought in brasse by most curious and excellent artificers.
9. What difference there is in Brasse: the diuers mixtures with other mettals: how to keepe brasse.
10. Of Brasse ore called *Cadmia*, and for what it is good in Physicke.
11. The refuse or scum of Brasse, *Verdegris*: the scales of brasse and copper, Steele, copper rust, or Spanish greene: of the collyrie ore ye-falue called *Hieracium*.
12. Of a kinde of *Verdegris* named *Scolecia*: of *Chalcitis*, i. red Vitrioll, Myfy, Sory, and Copporose or Vitrioll, i. blacke Nil.
13. Of the foile of Brasse named white Nil or Tutia: of Spodium, Antispodium, of Di- phryges, and the Trient of *Servilius*.

14. Of

Plinies Naturall History.

Chap.

14. Of Iron and mines of Iron: the difference also of Iron.
15. Of the temperature of Iron: the medicina- ble vertues of Iron, and the rust of Brasse and Iron: the scales of Iron, and the liquid plaſtre named of the Greekes *Hygemplastrum*.

Chap.

16. The mines of Lead: of white and blacke Lead.
17. Of Tin, Of Argentine Tin, and some other minerals.
18. Medicines made of Lead & refuse of Lead, of Lead ore, of Ceruse or Spanish white, of Sandaricha of red Orpiment.

In summe, here are contained natable matters, stories, and obseruations, 815.

Latine Authours cited.

L. Piso, Amias, Verrius, M. Varro, Messala, Rufus, Marcius the Poet, Butus, Iulius Bassus, and Sextius Niger, who wrote both in Greeke of Physicke, and *Fabius Vestalis*.

Forreine Writers.

Democritus, Metrodorus Scepius, Menecchmus, Xenocrates, Antigonus, and Duris, (who all foure wrote of grauing, chasing, and embossing mettals, a worke entituled *Toreutice*;) *Heliodorus*, who described the ornaments and oblations hangd vp in Athens: *Nymphodorus, Andreas, Heraclides, Diagoras, Botryenſis, Iolla, Apollodorus, Archimedes, Dionysius, Aristogenes, Diomedes, Mnesicles, Xenocrates* the sonne of *Zeno*, and *Theomnestus*.

¶ IN THE XXXV. BOOKE IS SHEWED IN what account Painting was in old time.

Chap.

1. The honour and regard of Pictures in times past.
2. In what price Images were of old.
3. When Images were first erected and set vp in publicke place, as also in priuat houses, with their seutcheons and armes: the begin- ning of pictures: the first draught of Pictures in one simple colour: the first Painters, and how ancient they were in Italie.
4. Of Roman Painters: the first time that Pain- ting and Pictures grew into credit: who they were that drew their victories in colors vpon tables, and set them forth to be seen: and when forreine Pictures began to be of some good reckoning at Rome.
5. The art and cunning of drawing pictures: the colours that painters vse.
6. Of colours naturall and artificiall.
7. What colour will not abide to be laid wet: what colours they painted withall in old time: at what time first the combats of sword-fencers at vtterance, were set forth in painted tables to be seene.
8. How ancient the art of Painting is, when it began: a catalogue of the excellent worke- men in that kind, and how their workman- ship was prized and esteemed.
9. The first that contended & stroue who could

Chap.

- paint best: also who first vsed the pencill.
10. Of Pictures so liuely drawne that birds were deceiued therewith: what is the hardest point in Painting.
11. The way to still birds that they sing and chatter not: who was the first that deuised to enamell, or to set colours with fire, and with the pencill painted arched roufs and vaults; and among, the wonderful prizes that Pictures were set at in old time.
12. The first inuentors of potterie: of Images made of clay and cast in moulds: also of vessels made of earth, and their price.
13. Sundry sorts of earth for potters: of the dust or sand of *Puteoli*: of other kinds of earth which turne to be hard stone.
14. Of walls made by casting in moulds: also of bricke walls, and the manner of making them.
15. Of *Brimstone* & *Alume*, their diuers kinds and vse in Physicke.
16. Of sundry sorts of earth, & namely *Samia, Eretria, Chia, Selenusia, Pingitis*, and *Ampelitis*, and the vse they haue in Physicke.
17. Sundry sorts of chalke for fullers to scoure clothes, to wit, *Cimolia, Sarda, Vmbria*, of a kind of earth called *Saxum*, as also that giueth a siluer color & is called *Agentaria*.
18. Who

The first Booke of

Chap.

18. Who were they that enriched their slaues after they were enfranchised, and who they were of slaues came vp and grew to great wealth and power.

Chap.

19. Of the earth that comes out of the Island Galera: of the earth Clupea: also, of that which commeth from the Balear Islands, and the Isle Ebusa.

In sum, the medicins, histories, and obseruations in this booke, amount to 956.

Latine Authors, alledged.

Meffala the Oratour, *Meffala* the Elder, *Fenestella*, *Atticus*, *Ferrius*, *M. Varro*, *Cor. Nepos*, *Decius Eucleo*, *Mutianus*, *Melissus*, *Vitruvius*, *Cassius Senerus* *Longulanus*, *Fabius Vastalis*, who also wrote of Painting.

Forreine Writers.

Pasicles, *Apelles*, *Meclanthius*, *Aclepiodorus*, *Euphranor*, *Parasius*, *Heliodorus*, who wrote of the Pictures and other ornaments set vp at Athens, *Metrodorus* (who likewise wrote of Architecture, to wit, Masonrie and Carpentrie:) *Democritus*, *Theophrastus*, *Apion* the Grammarian who also made a booke of Minerall or Chymicke Phyticke, *Nymphodorus*, *Andreas*, *Heracledes*, *Iolla*, *Apolodorus*, *Diagoras Botryensis*, *Archidamnus*, *Dionysius*, *Aristogones*, *Demanus*, *Mesicles*, *Xenocratos*, the scholler of *Zeno*, and *Theomestus*.

¶ THE XXXVI. BOOKE TREATETH of Stones.

Chap.

1. The nature and propertie of stones: the superfluitie and expence about buildings, of marble.
2. Who first shewed at Rome columnes of marble in publike place.
3. The first that brought columns of marble to Rome out of forreine countries.
4. The first workemen that were commended for cutting in marble, and at what time that inuention began.
5. Excellent peeces of worke in marble to the number of 126. The cunning and curious workmen themselves: of the white marble of the Island Paros. The flatly and admirable sepulchre Mausoleum.
6. When they began at Rome to build with marble: who was the first that ouercast the outside of walls with marble: at what times this or that kind of marble was taken vp in building at Rome: who cut marble first and brought it into leaues or thin plates by cutting: the manner thereof: also of sand.
7. Of the hard stone of Naxos, and Armenia: sundry kinds of marble.
8. Of the Alabastrine marble of Lygdinum and Alabandicum.
9. Of the great obeliske at Thebes in Ægypt, and at Alexandria: of that also which is in the great cirque or shew-place at Rome.

Chap.

10. Of that obeliske which standeth in Mars field at Rome, and seructh for a Gnomon or Stile in a quadrant or dyall.
11. Of a third obeliske at Rome in the Vatican.
12. Of the Pyramides in Ægypt, and a monstrous Sphinx of a wonderfull height.
13. Of the Mazes or Labyrinths in Ægypt, the Isle Lemnos, and in Italie.
14. Of hanging gardens made vpon terraces: of a great towne where all the houses were built vpon vaults and arches, seeming to hang in the aire: also of the temple of *Diana* in Ephesus.
15. Of the stately temple of Cyzicum: of a certaine rocke of stone called Fugitiue: of an Echo that rendreth the voice seuen fold: of an house built without naile or pin: of the sumptuous and wonderfull buildings at Rome.
16. Sundry kinds of the Loadstone: the medicinal vertues and properties thereof.
17. Of certain stones which soone eat & consume dead bodies that be laid therein: of others againe that preferue them long: of the stone Aius, and the vertues of it.
18. Of Iuorie digged out of the earth: of stones conuerted into bones: of stones that represent palms imprinted in them, and of other kinds.

Plinies Naturall Historie.

Chap.

19. Of Curalius, or a kind of Marquiesite called Pyrites, and the vertues thereof: of the stone Ostracites, and Amiantus & the properties of it: of the stone Melitites, and the power thereof: of the Geat and his medicinal properties: of Spunge stones: of the stone Phrygius and his nature.
20. Of the Bloud-stone, and five sorts of it; and of Schistus.
21. Foure kinds of the Ægle stone, of the stone within the bellie of them called Callimus: of the stones Samius and Arabus: also of Pumish stones.
22. Of stones meet for to make Apothecaries mortars, of soft stones, of the stone Specularis, & of Flints, of the shining stone Phenigites, of whetstones, and other stones meet for building: of stones that will resist the fire and abide all weather and tempest.

Chap.

23. Of Cesterns, of Limestone, sundry sorts of sand, the tempering of sand and lime for mortar: the ill building of some walls: of parget and roughcast: also columnes and buttresses in building.
24. The medicinal vertues of Quickelime, of Maltha, and Plaster.
25. Of pauements: when they were first vsed at Rome: of terraces and paved floores lying open to the aire aboue: of certaine pauements called Græcanica: and when arched and embowed worke first began.
26. The first inuention of glasse: the manner of making it of a kind of glasse called Obsidianum: sundry sorts of glasse in great variety.
27. Wonderfull operations of fire: the vertues thereof medicinal, and the prodigious significations and presages by fire.

In summe, here you may find medicines, stories, and obseruations, in all 523.

Latine Authors.

M. Varro, *Celius*, *Galba*, *C. Ictius*, *Mutianus*, *Cor. Nepos*, *L. Piso*, *Tubero*, *Seneca*, *Fabius Vastalis*, *Annius*, *Facialis*, *Fabius*, *Cato Censorius*, and *Vitruvius*.

Forreine Writers.

Theophrastus, *Praxitiles*, *K. Inbn*, *Nicander*, *Sotacus*, *Sudines*, *Alexander*, *Polyhistor*, *Apion*, *Plistonius*, *Duris*, *Herodotus*, *Euemerus*, *Aristagoras*, *Dionysius*, *Artemidorus*, *Butoridas*, *Antisthenes*, *Democritus*, *Demoteles*, and *Lyceas*.

¶ IN THE XXXVII. BOOKE IS DECLARED the originall of pretious stones.

Chap.

1. The pretious stone of *Polycrates* the tyrant, also of *K. Pyrrhus*: who were the best lapidaries, & could cut excellently wel in stone: the first man that at Rome ware a pretious stone vpon his finger.
2. The rich stones that were shewed in the triumph of *Pompey* the Great: the nature and vertues of the Crystall stone: the costly vessels made thereof, and the superfluous expence that way: when the vessels of Cassidoine called Myrrhina, were first inuented: the wastfull expence in them: the nature and properties of them: what lies the Greekes haue told as touching Amber.
3. The true original and beginning of Amber: the medicinal vertues thereof: the sundry kinds, and the excessiue cost that folke were at to get them: of *Lincurium* and the pre-

Chap.

erties of it.
4. Of Diamonds, and their kinds: their vertues: also of Pearls.
5. Of the Hemerauld and diuers sorts of it: of other Greene pretious stones cleare and transparent.
6. Of the true Opall stones, their diuers kinds, and which be counterfeit: the meanes how to try them: also of diuers other rich stones.
7. Of Rubies and carbuncles: which be counterfeit: the waies to proue whether they be good or no. Also of other ardent stones like fire.
8. Of the Topaze, and all the kinds: of the Turquois: of other Greene stones that bee not cleare through.
9. Sundry sorts of the Iasper stone.
10. Of certaine pretious stones set downe in order

The first Booke of

Chap.

order according to the Alphabet.

11. Of some pretious stones which take their denomination of the parts of mans bodie: also from other liuing creatures, & of those which haue the names from other things.

Chap.

12. Of other new stones growing naturally: of counterfeit and artificiall stones: of their sundry formes and fashions.

13. The manner and way how to proue fine stones from other.

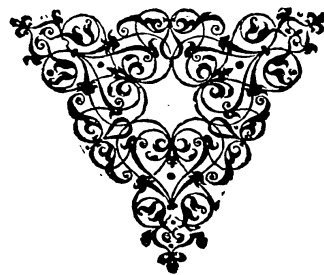
In summe, here are to be read of notable matters, worthy histories, and speciall obseruations, to the number of 1300, gathered out of

Latine Authours.

M. Varro, the Records of Romane triumphs, *Mecenas*, *Iacchus*, and *Cornelius Bocchus*.

Forreine Writers.

K. Iuba, *Xenocrates* the discipule of *Zeno*, *Sudines*, *Aschylus*, *Philoxenus*, *Euripides*, *Nicander*, *Satyrus*, *Theophrastus*, *Chares*, *Philomenes*, *Democrates*, *Xenotimus*, *Metrodorus*, *Sotacus*, *Pytheas*, *Timaeus* the Sicilian, *Nicens*, *Theocrestus*, *Asaruba*, *Mnasea*, *Theomenes*, *Cresias*, *Mithridates*, *Sophocles*, *K. Archelaus*, *Callistratus*, *Democritus*, *Ismenias*, *Olympicus*, *Alexander Polyhistor*, *Apion*, *Horus*, *Zoroastres*, and *Zacharias*.



Ralph e Grey

Fol. 1.



THE SECOND BOOKE OF THE HISTORIE OF NATURE,

WRITTEN BY C. PLINIUS
SECVNDVS.

Ralph Grey

CHAP. I.

¶ Whether the World be finite, and but one.



THE World, and this, which by another name men haue thought good to call heauen (vnder the pourprife and bending cope whereof all things are emmanteled and couered) beleue we ought in all reason to be a God, eternally vnmeasurable, without beginning, and likewise endlesse. What is without the compasse herof, neither is it fit for men to reach, nor within mans wit to reach and conceiue. Sacred it is euermlasting, infinit, all in all, or rather it selfe all and absolute: finite and limited, yet seeming infinite: in all motions orderly and certaine: howbeit in shew and iudgement of man, vncertaine: comprehending and containing all whatsoeuer, both without and within: Natures worke, and yet very Nature it selfe, producing all things. Great folly it is then, and meere madnesse, that some haue deuised and thought in their minde to measure it; yea, and durst in writing set downe the dimentiones thereof: that others againe, by occasion hereupon taken or giuen, haue deliuered and taught, That worlds there were innumerable: as if we were to beleue so many natures as there were Heauens: or if all were reduced to one, yet there should be so many Sunnes and Moones neuerthelesse, with the rest also of those vnmeasurable and innumerable starres in that one: as though in this pluralitie of worlds we should not alwaies meet with the same question still at euery turne of our cogitation, for want of the utmost and some end to rest vpon: or if this infinitenesse could possibly be assigned to Nature, the worke-mistresse and mother of all, the same might not be vnderstood more easily in that one Heauen which wee see; so great a worke especially and frame as it is. Now surely a fantastical! folly it is of all other follies, to go forth of it, and so to keepe a seeking without, as if all things within were well and clearly knowne already: as who would say, a man could take the measure iust of any third thing, who knoweth not his owne: or the minde of man see those things, which the very World it selfe may not receive.

CHAP. II.

¶ Of the forme and figure of the World.



THAT the forme of heauen is round, in fashion of an absolute and perfect globe, the name thereof principally, and the consent of all men agreeing to call it in Latine *Orbis*, (i. e.) a rounde; as also many naturall reasons, do euidently shew: to wit, not onely for that such a figure euery way falleth and bendeth vpon it selfe, is able to beare and vphold it selfe, includeth and compriseth it selfe, hauing need thereto of no ioints, as finding in any part thereof no end nor beginning: or because this forme agreeth best to that motion, whereby euermore and anon it must turne about:

B

(as

(as hereafter it shall appeare) but also because the eyesight doth approue the same: in that look which way soeuer you will thereupon, it seemeth to bend downward, round, and euen on all sides, shewing a iust Hemisphere, a thing not incident possibly to any other figure.

CHAP. III.

¶ Of the motion of Heauen.

THat the world thus framed, in a continuall and vncessant circuit, with vnspokeable swiftnesse turneth round about in the space of foure and twenty houres, the rising and setting ordinarily of the Sunne hath left cleare and doubtlesse. Now, whether it being in height infinite, and therefore the sound of so huge a frame, whiles it is whirled about, and neuer resteth in that reuolution, cannot be heard with our eares, I cannot so easily resolue and pronounce: no more I assure you, than I may auouch the ringing of the staires that are driuen about therewith, and roll with all their owne spheres: or determine, that as the Heauen moueth, it doth represent indeed a pleasant and incredible sweet harmonie both day and night: although to vs within, it seemeth to passe in silence. That there be imprinted therein the pourtraits of liuing creatures, and of all things besides without number, as also that the body thereof is not all ouer smooth and slicke (as we see in birds eggs) which excellent Authors haue termed *Tenerum*, is shewed by good arguments: for that by the fall of naturall seeds from thence of all things, and those for the most part blended and mixed one with another, there are ingendred in the world, and the sea especially, an infinite number of strange and monstrous shapes. Ouer and besides, our eyesight testifieth the same, whiles in one place there appeareth the resemblance of a waine or chariot, in another of a beare, the figure of a bull in this part, of a letter in that, and principally the middle circle ouer our head, more white than the rest, toward the North pole.

CHAP. IIII.

¶ Why the World or Heauen is called *Mundus*.

Erily for mine owne part, moued I am and ruled by the generall consent of all nations. For, the World, which the Greekes by the name of ornament, called *Mundus*. And without all question, Heauen we haue named *Calum*, as it were Engrauen and garnished, according as *M. Varro* interpreteth it. And hereto maketh much the orderly ranke of things therein, and namely the circle called *Signifer*, or the *Zodiake*. set forth and diuided by the formes of twelue liuing creatures therein portraied: together with the manner of the Sunnes race throughout them, keeping euer the same course still, for so many ages past.

CHAP. V.

¶ Of the foure Elements.



Neither see any doubt made as touching the Elements, That they be foure in number. The highest, Fire: from whence are those bright eyes of so many shining staires. The next, Spirit, which the Greekes and our country men by one name called Aire: Vitall this element is, and as it giueth life to all things, so it soone passeth through all, and is intermedled in the whole: by the power wherof, the earth hangeth poised and ballanced iust in the midst, together with the fourth element of the Waters. Thus by a mutuall entertainment one of another, diuers natures are linked and knit together: so as the light elements are kept in & restrained by certain weights of the heauier, that they flie not out: and contrariwise the massier be held vp, that they fall not downe, by means of the lighter, which couet to be aloft. So, through an equall endeour to the contrary, each of them hold their owne, bound as it were by the restlesse circuit of the very world: which, by reason that it runneth euermore vpon it selfe, the earth falleth to be lowest, and the middle of the whole: and the same hanging steadily by the poles of the heauen, peisseth those

A those elements by which it hangeth in a counterballance. Thus it alone resteth vnmoveable, whiles the whole frame of the world turneth about it: and as it is knit and vnited by all, so all rest and beare vpon the same.

CHAP. VI.

¶ Of the seuen Planets.



Etweene the earth and heauen there hang in the same spirit or element of aire aboue named, seuen stars, seuered one from another, and distant afunder certaine spaces, which of their variable motion wee call wandring planets, whereas indeed none stray and wander lesse than they. In the middelt of them the Sun taketh his course, as being the greatest and most puissant of all the rest: the very ruler, not of times and seasons onely, and of the earth, but also of the staires and heauen it selfe. Beleeue we ought, this Sun to be the very life, and (to speake more plainly) the soule of the whole world, yea, and the principall gouernance of nature: and no lesse than a God or diuine power, considering his workes and operations. He it is that giueth light to all things, and riddeth them from darknesse: he hideth the other staires, and sheweth them again: he ordereth the seasons in their alternatiue course: he tempereth the yeare, arising euer fresh and new againe, for the benefit and good of the world. The lowring dimnesse of the skie he dispatcheth, yea, and cleareth the darke mists and clowdinesse of mans minde: to other staires likewise he lendeth out his owne light. Most excellent, right singular he is, as seeing all, & hearing all. For this, I see, is the opinion of *Homer* (the prince of learning) as touching him alone.

CHAP. VII.

¶ Of Gods.



Suppose therefore that to seeke after any shape of God, and to assigne a forme and image to him, bewraith mans weakenesse. For God, whosoever hee be [if haply there be any other, but the very world] and in what part soeuer resiant, all sense he is, all sight, all hearing: he is all life, all soule, all of himselfe. And verily to beleeue that there be gods innumerable, and those according to mens virtues and vices, to wit, Chastitie, Concord, Vnderstanding, Hope, Honour, Clemencie, Faith; or (as *Democritus* was of opinion) that there are two gods onely, and no more; namely, Punishment, and Benefit: These conceits, I say, make mens idlenesse and negligence the greater. But all commeth of this, That fraile and crasie mortall men, remembring wel their owne infirmitie, haue digested these things apart, to the end that each one might from thence chuse to worship and honour that whereof he stood in need most. And hereupon it is, that in fundry nations we finde the same gods named diuersly, according to mens deuotion: and in one region ye shall haue innumerable gods. The infernall powers beneath likewise, yea, and many plagues haue been raunged by themselves, and reckoned for gods in their kinde, whilest with trembling feare wee desire that they were pacified. Which superstition hath caused a chappell to be dedicated to the Feuer, in the mount Palatium, euen by publicke order from the State. Likewise an altar to *Orbona*, nere the temple of *Lares*: because another erected to Bad Fortune in *Esquilie*. And thereby we may conceiue that there are a greater number of gods in heauen aboue, than of men vpon earth: since that euery one of their owne accord make so many gods as they list, sitting themselves with *Iunoes* and *Genij* for their patrons. Now certain Nations there be that account beasts, yea, and some filthie things for gods; yea and many other matters more shamefull to be spoken: swearing by stinking meats, by garlicke, and such like. But surely, to beleeue that gods haue contracted marriage, and that in so long continuance of time no children should be borne between them: also that some are aged, and euer hoarie and gray: others againe young and alwaies children: that they be blacke of colour and complexion, winged, hatched of eggs, liuing and dying each other day, are meere fooleries, little better than childish toies. But it passeth and exceedeth all shamelesse impudencie, to imagine adulteries amongst them: erst soones also chiding, scolding, hatred, and malice: and more than that, how there be gods, patrons of theft and wickednesse. Whereas in very deed, a god vn-

The second Booke of

to a man is he, that helpeth a man: and this is the true and direct path-way to euerlasting glory. In this way went the noble Romans in old time: and in this tract at this day goeth, with heavenly pace, *Vespasian Augustus*, both he and his children: *Vespasian*, I say, the most mightie ruler of the whole world: whiles he relieueth the afflicted State of the Romane Empire and Common-weale. And this is the most antient manner of requitall to such benefactors, That they should be canonized gods. And hereof came the names as well of all other gods, as of the stars and planets (which I haue mentioned before) in recognisance of mens good deserts. As for *Iupiter* verily and *Mercurie*, and other princes raunged among the gods, who doubteth that they were called otherwise among themselves? and who confesseth not how these be celestiall denominations, to expresse and interpret their nature.

^{Here let}
Christians take
heed, and be
thankfull to
God for the
light revealed
vnto them out
of the holy
scriptures.

Now, That the soueraigne power and deity, whatsoeuer it is, should haue regard of mankind **H** is a toy and vanity worthy to be laughed at. For can we chuse but beleue, can we make any doubt, but needs that Diuinity and Godhead must be polluted with so base & manifold a ministry? And hardly in manner may it be iudged, whether of the twain be better and more expedient for mankind to beleue, that the gods haue regard of vs; or to be perswaded that they haue none at all: considering, That some men haue no respect and reuerence at all of the gods; others againe so much, as it is a very shame to see their superstition. Added these are and deuoted to serue them by forein magicke ceremonies: they weare their gods vpon their fingers in rings, yea, they worship and adore monstres: they condemne and forbid some meats; yet they deuise others for them. Impose they do vpon them hard and vengible charges to execute, not suffering them to rest and sleep in quiet. They chuse neither marriages nor children, ne yet any one thing els, but by the approbation & allowance of sacred rites and mysteries. Contrariwise, others there are so godlesse, that in the very capitoll they vse deceit, and forswear themselves euen by *Iupiter*, for all that he is ready to shoot his thunderbolts: and as some speed wel enough with their wicked deeds and irreligion; so others againe feele the smart and are punished by the saints whom they adore, and the holy ceremonies which they obserue.

Howbeit, betweene both these opinions, men haue found out to themselves a middle God-head and diuine power, to the end that we should giue stil a more vncertaine coniecture as touching God indeed. For throughout the whole world, in euery place, at all times, and in all mens mouths, Fortune alone is sought vnto and called vpon: the only is named and in request; she alone is blamed, accused, and endited. None but she is thought vpon; the only is praised, she only is reproued and rebuked: yea, and worshipped is she with railing and reprochfull tearms: and namely when she is taken to be wauering & mutable: and of the most sort supposed also blind; rousing at random, vncoustant, vncertaine, variable, and fauoring the vnworthy: whatsoeuer is laid forth, spent, and lost, whatsoeuer is receiued, woon and gotten: all that comes in, all that goes out is imputed to Fortune: and in all mens reckonings and accounts she makes vp the booke, and sets all freight. So abiect we are, so seruile also and enthralled to Lots, that euen the very chance of Lots is taken for a god, than which nothing maketh vs more doubtfull and ignorant of God.

Now there are another sort, that reiect Fortune & Chance both, and wil not abide them, but attribute the euent and issues of things, to their owne feuerall stars, and go by the fatall horoscope or ascendent of their natiuitie: affirming that the same shall euer befall, which once hath bin set downe and decreed by God: so as he for euer after may sit still and rest himselfe. And this opinion beginneth now to settle and take deep root, insomuch as both the learned, and also the rude and ignorant multitude, run that way on end. From hence (behold) proceed the warnings & admonitions of lightnings, the fore-knowledge by Oracles, the predictions of Soothsayers, yea, and other contemptible things not worthy to be once spoken of; as sneezing, and stumbling with the foot, are counted matters of presage. *Augustus Caesar* of famous memorie hath made report and left in writing, that his left foot shooe was vntowardly put on before the right, on that very day, when he had like to haue miscarried in a mutiny among his souldiers.

Thus these things euery one doe enwrap and entangle silly mortall men, void of all foresight and true vnderstanding: so as this only point among the rest remains sure and certain, namely, That nothing is certaine: neither is there ought more wretched and more proud withall, than man. For all liuely creatures else take care onely for their food, wherein Natures goodness and bountie of it selfe is sufficient: which one point verily is to be preferred before all good things

Plinies Naturall History.

things whatsoeuer, for that they neuer thinke of glory, of riches, of seeking for dignities and promotions, nor ouer and aboue, of death. Howbeit, the beleefe that in these matters the gods haue care of mens estate, is good, expedient, and profitable in the course of this life: as also that the vengeance and punishment of malefactors may well come late (whiles God is busily occupied otherwise in so huge a frame of the world) but neuer misse in the end: and that man was not made next in degree vnto God; for this, That he should be wel-neare as vile and base as the bruit beasts. Moreover, the chiefe comfort that man hath, for his imperfections in Nature, is this, That euen God himselfe is not omnipotent, and cannot do all things: for neither he is able to worke his owne death, would he neuer so faine, as man can do when he is wearie of his life; the best gift which he hath bestowed vpon him, amid so great miseries of his life: nor indow mortall men with euerlasting life: ne yet recall, raise, and reuiue those that once are departed and dead: nor bring to passe, that one who liued, did not liue; or he that bare honorable offices, was not in place of rule and dignity. Nay, he hath no power ouer things done and past, save onely obliuion: no more than he is able to effect (to come with pleasant reasons and arguments to proue our fellowship therin with God) that twife ten should not make twenty: and many such things of like sort. Whereby (no doubt) is evidently proued, the power of Nature, and how it is she, and nothing els, which we call God. I thought it not impertinent thus to diuert and digresse to these points, so commonly divulged, by reason of the vsuall and ordinarie questions as touching the Essence of God.

CHAP. VII.

¶ Of the Nature of Planets, and their circuit.



Et vs returne now to the rest of Natures workes. The stars which we said were fixed in heauen, are not (as the common sort thinketh) assigned to euery one of vs; and appointed to men respectiuelly; namely, the bright & faire for the rich; the lesse for the poore: the dim for the weak, the aged and feeble: neither shine they out more or lesse, according to the lot and fortune of euery one, nor arise they each one together with that person vnto whom they are appropriate; and die likewise with the same: ne yet as they set and fall, do they signifie that any bodie is dead. There is not, ywis, so great societie betweene heauen and vs, as that together with the fatall necessitie of our death, the shining light of the starres should in token of sorrow go out and become mortall. As for them, the truth is this; when they are thought to fall, they doe but shooe from them a deale of fire, euen of that abundance and ouermuch nutriment which they haue gotten by the attraction of humiditie and moisture vnto them, like as we also obserue daily in the wikes and matches of lampes or candles burning, with the liquour of oile. Moreover, the celestiall bodies, which make and frame the world, and in that frame are compact and knit together, haue an immortall nature: and their power and influence extendeth much to the earth; which by their effects and operations, by their light and greatnesse might be knowne, notwithstanding they are so high and subtile withall, as we shal in due place make demonstration. The manner likewise of the heauenly Circles and Zones shall be shewed more fitly in our Geographicall treatise of the earth, so far as the consideration thereof appertaineth wholly thereunto: onely we will not put off, but presently declare the deuisers of the Zodiacke, wherein the signes are.

The obliquitie and crookednesse thereof, *Anaximander* the Milesian is reported to haue obserued first, and thereby opened the gate and passage to Astronomie, and the knowledge of all things: and this happened in the 58 Olympias. Afterwards *Cl. ostratus* marked the signes therein, and namely those first of *Aries* and *Sagittarius*. As for the sphere it selfe, *Atlas* deuised long before. Now for this time we will leaue the very bodie of the starry heauen, and treat of all the rest betweene it and the earth.

Certaine it is, that the Planet which they call *Saturne*, is the highest; and therefore seemeth least: also that he keepeth his course, and performeth his reuolution in the greatest circle of all: and in thirtie yeares space at the soonest, returneth againe to the point of his first place. Moreover, that the mouing of all the Planets, and withall of Sun and Moone, go a contrarie course vnto the starrie heauen, namely, to the left hand (i. Eastward:) whereas the said heauen alwaies

hasteneth to the right [i.e. Westward.] And albeit in that continuall turning with exceeding celerity, those planets be lifted vp aloft, and carried by it forcible into the West, and there set: yet by a contrarie motion of their owne, they passe euery one through their feuerall waies Eastward, and all for this, that the aire rolling euer one way, and to the same part, by the continuall turning of the heauen, should not stand still, grow dul, & as it were congealed, whiles the globe thereof resteth idle; but dissolue and cleaue, parted thus, & diuided, by the reuerberation of the contrarie beams, and violent crosse influence of the said planets. Now, the Planet *Saturne* is of a cold and frozen nature, but the circle of *Iupiter* is much lower than it, and therefore his reuolution is performed with a more speedy motion, namely, in twelue yerres. The third of *Mars*, which some call the Sphere of *Hercules*, is fry and ardent, by reason of the Suns vicinity, and wel-neere in two yeares runneth his race. And hereupon it is, that by the exceeding heate of *Mars*, and the vehement cold of *Saturne*, *Iupiter*, who is placed betwixt, is well tempered of them both, and so becommeth good and comfortable. Next to them is the race of the Sun, consisting verily of 360 parts [i.e. degrees:] but to the end that the obseruation of the shadowes which he casteth, may return againe iust to the former marks, fixe daies be added to euery yeare, with the fourth part of a day ouer and above. Whereupon euery fifth yeere leapeth, and one odde day is set to the rest: to the end that the reckoning of the times and seasons might agree vnto the course of the Sun. Beneath the Sun a goodly faire star there is, called *Venus*, which goeth her compasse, wandering this way and that, by turnes: and by the very names that it hath, testifieth her emulation of Sun and Moone. For all the while that she preuenteth the morning, and riseth Orientall before, she taketh the name of *Lucifer* (or Day-star) as a second Sun hastning the day. Contrariwise, when she shineth from the West Occidentall, drawing out the day light at length, and supplying the place of the Moone, she is named *Vesper*. This nature of hers, *Pythagoras* of Samos first found out, about the 42 olympias, which fel out to be the 142 yere after the foundation of Rome. Now this planet in greatnesse goeth beyond all the other fixe: and so cleare and shining withall, that the beames of this one star cast shadowes vpon the earth. And hereupon cometh so great diuersitie and ambiguitie of the names thereof: whiles some haue called it *Iuno*, other *Ifis*, and othersome the Mother of the gods. By the naturall efficacie of this star, all things are engendred on earth: for whether she rise East or West, she sprinkleth all the earth with dew of generation, and not onely filleth the same with seed, causing it to conceiue, but stirreth vp also the nature of all liuing creatures to engender. This planet goeth through the circle of the Zodiacke in 348 daies, departing from the Sun neuer about 46 degrees, as *Timaeus* was of opinion. Next vnto it, but nothing of that bignesse and powerful efficacie, is the star *Mercurie*, of some cleped *Apollo*: in an inferiour circle he goeth, after the like manner, a swifter course by nine daies: shining sometimes before the Sun rising, otherwhiles after his setting, neuer farther distant from him than 23 degrees, as both the same *Timaeus* and *Sosigenes* doe shew. And therefore these two planets haue a peculiar consideration from others, and not common with the rest about named. For those are seene from the Sun a fourth, yea, and third part of the heauen: oftentimes also in opposition full against the Sun. And all of them haue other greater circuits of full reuolution, which are to be spoken of in the discourse of the great yeare.

CHAP. IX.

Of the Moones nature.

The Moone.



Vt the Planet of the Moone, being the last of all, most familiar with the earth, and deuised by Nature for the remedie of darknesse, out-goeth the admiration of all the rest. She with her winding and turning in many and sundry shapes, hath troubled much the wits of the beholders, fretting and fuming, that of this starre, being the neereft of all, they should be most ignorant; growing as it doth, or else waiting euermore. One while bended pointwise into tips of hornes: another whiles diuided iust in the halfe, and anon againe in compasse round: spotted sometime and darke, and soone after on a sudden exceeding bright: one while big and full, and another while all at once nothing to bee seene. Sometime shining all night long, and otherwhiles late it is ere she riseth: shee also helpeth the Sunnes light some part of the day: eclipsed, and yet in that eclipse to be seene. The same at the moneths end lieth hidden, at what time (it is supposed) shee labour-
reth

- A reth and trauellet not. At one time yee shall see her below, and anon aloft: and that not after one manner, but one while reaching vp close to the highest heauen, and another while ready to touch the mountains: sometimes mounted on high into the North, and sometime cast down below into the South. Which feuerall constitutions and motions in her, the first man that obserued, was *Endymeeon*: and thereupon the voice went, That he was enamoured vpon the Moone. Certes, thankfull we are not, as we ought to be, vnto those who by their trauell and careful endeavour haue giuen vs light in this light. But delighted rather we are wonderously (such is the pestilent wit and wicked disposition of man) to record in Chronicles, bloodshed and murders: that lewd acts and mischieuous deeds should be knowne of them, who otherwise are ignorant of the world it selfe. Well, to proceed, the Moone being next to the Centre, and therefore of least compasse, performs the same course and circuit in seuen and twentie daies, and one third part of a day, which *Saturne* the highest planet runnes (as we said before) in thirty yerres. After this, making stay in coniunction with the Sun two daies, forth she goes, and by the thirtieth day at the most, returneth to the same point and ministry againe: the mistresse, if I may so say, and the teacher of all things Astronomicall, that may be known in heauen. Now by her meanes are we taught that the yeere ought to be diuided into twelue moneths: for as much as, the Moone meeteth or ouertaketh the Sun so many times before he returneth to the same point where he began his course. Likewise that shee loseth her light (as the rest of the planets) by the brightness of the Sun, when she approacheth neere. For borrowing wholly of him her light, shee doth shine: much like to that which we see glittering and flying too and fro in the reflection and reuerberation of the Sun-beames from the water. And hereupon it is, that she, by her more mild and vnperfect power dissolueth, yea and increaseth, so great moisture as she doth, which the sun beames may consume. Hence it comes also, that her light is not euen and equall in sight, because then only when she is opposite vnto the Sunne, she appeareth full: but all other daies she sheweth no more to vs here on earth, than she conceiueh light of the Sunne. In time verily of coniunction or change, she is not seene at all: for that whiles she is turned away, all the draught of light, she casteth thither backe againe, from whence she receiued it. Now, that these planets are fed doubtles with earthly moisture, it is euident by the Moone: which so long as she appeareth by the halfe in sight, neuer sheweth any spots, because as yet shee hath not her full power of light sufficient, to draw humour vnto her. For these spots be nothing else but the dregs of the earth, caught vp with other moisture among the vapors.

CHAP. X.

Of the Sunne and Moones eclipse: and of the Night.

- M oreouer, the eclipse of the Moone and Sunne (a thing throughout the vniuersall contemplation of Nature most maruellous, and like a strange and prodigious wonder) doth shew the bignesse and shadow of these two planets. For euident it is, that the Sunne is hidden by the coming betwene of the Moone: and the Moone againe by the opposition of the Earth: also that the one doth quit the other, in that the Moone by her interposition bereaueth the Earth of the Sunnes raies, and the earth againe doth the semblable by the Moone. Neither is the Night any thing else but the shade of the Earth. Now the figure of this shadow resembleth a pyramis, pointed forward, or a top turned vp side downe: namely, when as it falleth vpon it with the sharpe end thereof, nor goeth beyond the heights of the Moone; for that no other starre is in that manner darkened: and such a figure as it, alwaies endeth pointwise. And verily, that shadowes grow to nothing in great space of distance, appeareth by the exceeding high flight of some foules. So as the confines of these shadowes, is the vtmost bound of the aire, and the beginning of the fire. About the Moone all is pure and light some continually. And we in the night doe see the starres, as candles or any other lights from out of darkenesse. For these causes also the Moone in the night season is eclipsed onely. But the reason why the Sun and Moone, are not both in the eclipse at set times and monethly, is the winding obliquitie of the Zodiacke, and the wandering turnings of the Moone one while farre South, and another while as much North (as hath been said:) and for that these planets do not alwaies in their motion meet iust in the points of the eclipticke line, to wit, in the head or taile of the Dragon,

CHAP. XI.

¶ Of the magnitude of Starres.

The reason of this liſteth vp mens mindes into heauen: and as if they beheld and looked downe from thence, diſcouer vnto them the magnitude of the three greateſt parts of the whole world. For the Sunnes light could not wholly be taken away from the earth, by the Moone coming betwene, in caſe the earth were bigger than the Moone. But the huge greatneſſe of the Sunne is more certainly knowne, both by the ſhadow of the Earth, and the bodie of the Moone: ſo as it is needleſſe to ſearch and inquire into the largeneſſe thereof, either by prooſe of eie-ſight, or by coniecture of the minde. How vmeaſurable it is, appeareth evidently by this, That trees which are planted in limits from Eaſt to Weſt, caſteth ſhadowes equall in proportion; albeit they be neuer ſo many miles aſunder in length: as if the Sunne were in the miſt of them all. This appeareth alſo about the time of the equinoctiall, in all regions meridionall, when the Sunne ſhineth directly plumb over mens heads, and caſteth no ſhadow. In like manner, the ſhadowes of them that dwell Northerly vnder the Solſticiall circle in Summer, falling all at noone tide, Northward, but at Sunne-riſing, Weſtward, doing the ſame demonstration. Which poſſibly could not be, unleſſe the Sunne were far greater than the earth. Moreover, in that, when he riſes, he ſurpaſſes in breadth the hill Ida, compaſſing the ſame at large both on the right hand and the left, and namely, being ſo farre diſtant as he is. The eclipse of the Moone doth ſhew alſo the bigneſſe of the Sunne, by an inſallible demonstration; like as himſelfe eclipsed, declarerh the littleneſſe of the earth. For whereas there be of ſhadowes three formes and figures: and evident it is, that if the darke materiall body which caſteth a ſhadow, be equall in bigneſſe to the light, then the ſhadow is faſhioned like a colume or pillar, and hath no point at the end: if it be greater, it yeeldeth a ſhadow like a top directly ſtanding vpon the point, ſo as the nether part thereof is narroweſt, and then the ſhadow likewiſe is of infinite length: but if the ſaid body be leſſe than the light, then is represented a pyramidall figure like an hey-cocke, falling out ſharpe pointed in the top; which manner of ſhadow appeareth in the Moones eclipse: it is plaine, maniſeſt, and without all doubt, that the Sunne is much bigger than the earth. The ſame verily is ſeen by the ſecret and couert prooſes of Nature it ſelfe. For why in diuiding the times of the yeere, departeth the Sunne from vs in the winter? marry, euen becauſe by meanes of the nights length and cooleneſſe, he would reſreſh the earth which otherwiſe no doubt he ſhould haue burnt vp: for, it notwithstanding, he burneth it in ſome meaſure, ſo exceſſiue is the greatneſſe thereof.

CHAP. XII.

¶ The inventions of man as touching the obſervation of the heauens.

The reason verily of both eclipses, the firſt Romane that publiſhed abroad and diuulged, was *Salpurius Gallus*, who afterward was Conſull, together with *M. Marcellus*: but at that time being a Colonell, the day before that King *Perſus* was vanquiſhed by *Paulus*, he was brought forth by the Generall into open audience before the whole hoſt, to fore-tell the eclipse which ſhould happen the next morning: whereby he deliuered the armie from all perturbatione and feare, which might haue troubled them in the time of battell, and withina while after he compiled alſo a booke thereof. But among the Grecks, *Thales Miletus* was the firſt that found it out, who in the eight and fortieth Olympias, and the fourth yeere thereof, did prognostiſicate and foreſhew the Sunnes eclipse that happened in the reigne of *Hipſilus*, and in the 170. yeere after the foundation of the citie of Rome. After them, *Hipparchus* compiled his Ephemerides, containing the courſe and aſpects of both theſe planets, for fix hundred yeeres enſuing: comprehending withall the moneths according to the calculation ſerckonings of ſundry nations, the daies, the houres, the ſituation of places, the aſpects, and latitude of diuers rownes and countries; as the world will beare him witneſſe: and that he liſt a ſturdier, than if he had been priue to Natures counſels. Great perſons and excellent wiſe were ſubtiltiſe who about the reach of all capacitie of mortall men, found out the reaſon of the courſe of ſo mighty ſtarres and diuine powers: and whereas the ſillie minde of men was

A was before ſet and to ſeeke, fearing in theſe eclipses of the ſtarres, ſome great wrong and violence, or death of the planets, ſecured them in that behalfe: in which dreadful feare ſtood *Streſichorus* and *Pindarus* the Poets (notwithſtanding their lofty ſtile,) and namely at the eclipse of the Sun, as may appeare by their poems. As for the Moone, mortall men imagine, that by magick, ſorceries, and charmes, ſhe is enchanted, and therefore helpe her in ſuch a caſe when ſhe is eclipsed by diſſonant ringing of baſons. In this fearefull fit alſo of an eclipse, *Nicias* the Generall of the Athenians, as a man ignorant of the courſe thereof, feared to ſet ſaile with his fleet out of the hauen, and ſo greatly endangered and diſtreſſed the ſtate of his countrey. Faire chieue yee then for your excellent wit, O noble Spirits, interpreters of the heauens, capable of Natures works, and the deuifiers of that reaſon whereby ye haue ſurmounted both God and man. For who is he, that ſeeing theſe things, and the painfull ordinarie trauels, ſince that this terme is now taken vp, of the ſtars, would not beare with his owne infirmitie, and excuſe this neceſſitie of being born to die? Now for this preſent I will briefly and ſummarily touch thoſe principall points which are confeſſed and agreed vpon, touching the ſaid eclipses, hauing lightly rendred a reaſon thereof in moſt needfull places: for neither ſuch prouing and arguing of theſe matters belongs properly to our purpoſed worke; neither is it leſſe wonder to be able to yeeld thereaſon and cauſes of all things, than to be reſolute and conſtant in ſome.

CHAP. XIII.

¶ Of Eclipses.

Certaine it is, that all Eclipses in 222 moneths haue their reuolutions, and return to their former points: as alſo that the Sun's eclipse neuer happeneth but vpon the change of the Moone, namely either in the laſt of the old, or firſt of the new, which they call conjunction: and that the Moone is neuer eclipsed but in the full, and alwaies ſomewhat preuent the former Eclipse. Moreover, that euery yeare both planets are eclipsed at certaine dayes and houres vnder the earth. Neither be theſe eclipses in all places ſcene when they are about the earth, by reaſon ſometimes of cloudy weather, but more often, for that the globe of the earth hindereth the ſight of the bending conuexitie of the heauen. Within theſe two hundred yeeres was it found out by the witty calculation of *Hipparchus*, that the Moone ſometimes was eclipsed twice in ſixe moneths ſpace, and the Sun likewiſe in ſeuen: alſo that the Sun and Moone twice in thirty dayes were darkned about the earth: howbeit ſcene this was not equally in all quarters, but of diuers men in diuers places: and that which maketh me to maruell moſt of all in this wonder, is this, that when agreed it is by all, that the Moone light is dimmed by the ſhadow of the earth, one while this eclipse hapneth in the Weſt, and another while in the Eaſt: as alſo by what reaſon it hapned, that ſeeing after the Sunne is vp, that ſhadow which dusketh the light of the Moone muſt needs be vnder the earth; it fell out once, that the Moone was eclipsed in the Weſt, and both planets to be ſcene about the ground in our horizon: for that in twelue daies both theſe lights were miſſing, and neither Sun nor Moon were ſeen, it hapned in our time, when both the *Veſpaſians* (Emperors) were Conſuls, the father the third time, and the ſon the ſecond.

CHAP. XIV.

¶ Of the Moones motion.

Cleare it is, that the Moone alwaies in her encreaſing hath the tips of her hornes turned from the Sun toward the Eaſt: but in the waine contrariwiſe Weſtward. Alſo that ſhe ſhines the firſt day of her apparition, 3 parts, and the foure and twentieth part of an houre, and ſo riſeth in proportion the ſecond day forward, vnto the full: and likewiſe decreaſeth in the ſame manner to the change. But alwaies ſhe is hidden in the change within fourteene degrees of the Sunne. By which argument we collect, that the magnitude of the other Planets is greater than that of the Moone, for ſo much as they appeare otherwiſes when they be but ſeuen degrees off. But the cauſe why they ſhew leſſe, is their altitude: like as alſo the fixed ſtarres, which by reaſon of the brightneſſe of the Sunne are not ſcene in the day time; whereas indeed they ſhine as clearly by day as by night. And that is maniſeſtly proued by ſome

some eclipses of the Sun, and exceeding deepe pits, for so they are to be seene by day light. G

CHAP. XV.

¶ Generall rules touching the motions and lights of other Planets.

THose three which we say are about the Sun be hidden when they goe their course together with him. They arise in the morning, and be called Orientall Matutine, and neuer depart farther than eluen degrees. But afterwards meeting with his raies and beames, they are couered, and in their triple aspect retrograde, they make their morning station a hundred and twenty degrees off, which are called the first; and anon in a contrarie aspect or opposition, 180 degrees off, they arise in the euening, and are Occidentall Vespertine. In like sort H approaching from another side within an hundred and twenty degrees, they make their euening stations, which also they call the second, vntill he ouertake them within twelue degrees, and so hide them, and these are called the euening settings. As for *Mars*, as he is neerer vnto the Sun, so feeleth he the Sun beames by a quadrant aspect, to wit ninetie degrees, whereupon that motion tooke the name, called the first and second Nonagenarie from both risings. The same planet keepeth his stationarie residence six moneths in the signes: whereas otherwise of his owne nature but two moneths. But the other planets in both stations or houses continue not all out foure moneths apiece. Now the other two inferiour planets vnder the Sun go downe and are hidden after the same manner in the euening Coniunction, and in as many degrees they make their morning rising: and from the farthest bounds of their distance they follow the Sun, and after they haue once ouertaken him, they set againe in the morning, and so outgo him. And anon keeping the same distance, in the euening they arise againe vnto the same limits which we named before, from whence they are retrograde, and return to the Sun, and by the euening setting they be hidden. As for *Venus*, she likewise maketh two stations, according to the two manners of her apparance, morning and euening, when she is in farthest bounds and vrmost points of her Epicycle. But *Mercurie* keepeth his stations so small a while that they cannot be obserued. This is the manner and order as well of the lights and appearances of the planets, as of their occultations, and keeping close intricate in their motion, and enfolded within many strange wonders. For change they do their magnitudes and colours; sometime they approach into the North, the same againe go backe toward the South, yea, and all on a sudden they appeare one while neerer to the earth, and another while to the heauen: wherein if we shall deliuer many points otherwise than former Writers, yet confesse we do, that for these matters we are beholden vnto them, who first made demonstration of seeking out the wayes thereto: howbeit let no man dispaire, but that hee may profit and goe forward alwaies in further knowledge from age to age. For, these strange motions fall out vpon many causes. The first is, by reason of those eccentricque circles or Epicycles in the stars, which the Greekes call *Abides*; for needs we must vse in this treatise the Greeke termes. Now every one of the planets haue particular Auges or circles aforesaid by themselves, and these different from those of the starry heauen: for that the earth from those two points which they call Poles, is the very centre of the heauen, as also of the Zodiacke, scituate ouerthwart betweene them. All which things are certainly knowne to be so by the compasse, that neuer can lie. And therefore for every centre there arise their owne *Abides*, whereupon it is, that they haue diuerse circuits, and different motions, because necessarie it is, that the inward and inferiour *Abides* should be shorter. L

CHAP. XVI.

¶ Why the same Planets seeme sometime higher, and some lower.



IHe highest *Abides* therefore from the centre of the earth are of *Saturne*, in the signe Scorpio: of *Iupiter*, in Virgo: of *Mars*, in Leo: of the Sun, in Gemini: of *Venus* in Sagittarius: of *Mercurie* in Capricorne: and namely in the middle or fifteenth degree of the said signes: and contrariwise the said planets in the same degrees of the opposite signes are lowest, and to the centre of the earth nearest. So it commeth to passe, that they seeme to moue more slowly when they goe their highest circuit: not for that

A that naturall motions doe either hasten or slacke, which be certaine and feuerall to euery one: but because the lines which are drawne from the top of the *Abis*, must needs grow narrow and neere to gether about the centre, as the spokes in cart wheelles: and the same motion by reason of the neerenesse of the centre, seemeth in one place greater, in another lesse. The other cause of their sublimities is, for that in other signes they haue the *Abides* eleuated highest from the centre of their own eccentricque circles. Thus *Saturne* is in the height of his Auge in the 20. degree of Libra, *Iupiter* in the 15. of Cancer, *Mars* in the 28. of Capricorne, the Sunne in the 29. of Aries, *Venus* in the 16. of Pisces, *Mercurie* in the 15. of Virgo, and the Moone in the 4. of Taurus. The third reason of their altitude or eleuation, is not taken from their Auges or circles accen-
B trique, but vnderstood by the measure and conuexitie of heauen, for that these planets seeme to the eie as they rise and fall, to mount vp or settle downward through the aire. Hereunto is knit and vnited another cause also, to wit, the Zodiaks obliquitie, & latitude of the planets, in regard of the eclipticke: For through it the starres which we called wandering, do moue and take their course. Neither is there any place inhabited vpon earth, but that which lieth vnder it. For al the rest without the poles, are fruitles, desart, and ill fauoured. Only the planet *Venus* goeth beyond the circle of the Zodiacke, 2. degrees which is supposed to be the very efficient cause, that certaine liuing creatures are ingendred and bred euen in the desart and vnhabitable parts of the world. The Moone likewise rangeth throughout all the bredth of it, but neuer goeth out of it. Next after these, the starre of *Mercurie* hath the largest scope in the Zodiacke, but yet so, as of 12. degrees (for that is the bredth thereof) he wandreth but 8. and those not equally, but two in the midst, foure aboue, and two beneath. Then the Sunne in the midst, goeth alwaies betweene the two extremities of the Zodiacke: but in his declining course from South and North, he seemeth to wind bias after the maner of Dragons or Serpents, vnequally. *Mars* in his latitude leaueth the eclipticke line foure halfe degrees, *Iupiter* two degrees and a halfe, *Saturne* no more but two, like as the Sunne. Thus you see the manner of the latitudes, as they descend Southward, or ascend Northward. And vpon this is the reason grounded also of the opinion of them, who imagine that the planets do arise and mount from the earth vpward into heauen. For very many haue thought, although vntruly, that they climbe in this manner. But to the end that they may be reprobued and confuted, we must lay open an infinite and incomprehensible subtiltie, & that which containeth all those causes & reasons abouesaid. First therefore this is agreed on and resolved, that these stars or planets in their euening setting, are nearest to the earth, both in regard of latitude, & also of altitude: and then they be called Occidentall Vespertine, when the Sun toward the euening couereth them with his raies: also, when they be farthest from the earth, as well in latitude as eleuation, they be Orientall Matutine, & arise or appeare in the morning before the Sun is vp: also that then they are Stationaries in their houses, which be in the middle points of the latitudes which they call eclipticks. Likewise, confessed it is, that so long as the planets are neer to the earth, their motion seemeth to encrease & be quicke: but as they depart on high, to decrease and be slow. And this reason is approued & confirmed principally by the eleuations and depressions of the Moone. As doubles it is also, and held for an infallible rule, that euery planet being Orientall Matutine, riseth euery day higher than other. The superior three about the Sun diminish euen from their first stations vnto the second. Which being so, it will plainly appeare, that euery planet Orientall Matutine, rising before the Sun, begins to mount the latitude Septentrional, & decline from the Ecliptick Northward: in such sort, that from the time they begin to dismarsh, their motion increases by little and little more sparsely. But in the first Stations, they are at the highest altitude & ascent: for then and not before, the numbers begin to be withdrawne, & the planets to go backward, and be retrograde. Whereof a particular reason by it selfe may be giuen, in this maner: The Planets being smitten in that part whereof we spake, they are both inhibited by the triangular beames or Trine aspect of the sun, to hold on a straight and direct course in the longitude of heauen, and so be retrograde: and so are raised vp aloft by the fire power of the said sun. This cannot presently at the first be vnderstood by our eiesight: whereupon they are supposed to stand, and hereof their Stations took the name. Then proceedeth forward the violence of the Sun beames or aspect, and the vapour thereof by repercussion, forceth them to be evidently retrograde, and go backward. And much more is this perceived in their euen rising, when they be Orientall Vespertine, when the Sun is wholly against them, and when they be driuen to the very top of their *Abides*, and so not seene

at all, because they are at the highest, and goe their least motion, which is so much the lesse, when as it hapneth in the highest signes of their Auges or *Abides*. From the euen arising after the Sunne setting, they descend toward the latitude meridiol all, for now the motion lesse diminisheth, but yet encrease not before the second stations: for that they are forced to descend, by reason of the Sun beames comming from the other side of their Epicycle: and the same force beareth them downward againe to the earth, which by the former triangular aspect raised them aloft towards heaven. So much skilleth it whether the said beames came from beneath or above. The same happeneth much more in the euen setting, when they be hidden with the raies of the Sun. This is the reason of the superiour planets about the Sunne: but the Theorique is more difficult of the rest, and hath by no man before vs been deliuered.

CHAP. XVII.

¶ General rules as touching the Planets.



First and formost therefore let vs set downe the cause why *Venus* starre neuer departeth from the Sunne more than 46. degrees, and *Mercurie* not about 23. and (being as they are diuers Planets) why oftentimes they retyre backe vnto the Sunne within that compasse. For to be resolu'd in this point, note we must, that both of them haue their *Abides* turned opposite to the rest, as being seated vnder the Sun: and so much of their circles is vnderneath, as the forenamed were above: and therefore farther off they cannot be, because the curuature and roundle of their *Abides* in that place hath no greater longitude. Therefore both edges of their *Abides*, by a like proportion keepe an indifferent meane, & their course is limited: but the short spaces of the longitudes, they recompence againe with the wandring of their latitudes. But what is the reason that they reach not alwaies to 46. degrees, and to 23. yes ywis do they: but this the Canonick Astronomers haue missed of in their Aphorismes. For it is apparent, that their *Abides* also or Auges do moue, because they neuer ouerpasse the Sunne. And therefore when their edges from either side are perceived to fall vpon the very point, then the planets also are supposed to reach vnto their longest distances: but when their edges or the points of their Epicycles be short so many degrees, the starres themselves are thought to returne more speedily in their retrogradation, than in their direct course forward, albeit the utmost extremitie which they both haue, is euer the same. And from hence is the reason vnderstood of the contrary motions of these two planets. For the superiour planets moue most swiftly in the euen setting, but these most slowly. They, I say, be farthest from the earth, when they moue slowest; and these when they goe swiftest: for as in the former the neerenesse of the centre hasteneth them; so in these, the extremitie of the circle: they, from their morning rising begin to slack their celeritie; but these, to encrease it: they returne back from their morning Station to their evening mansion; but *Venus* contrariwise is retrograde from the Station Vespertine, to the Maturine. Howbeit, she from the morn rising beginneth to climbe the latitude Septentrionall: but to follow the altitude and the Sunne, from the morning station, as being most swift, and at the highest, in the morn setting. Moreover, shee beginnes to digresse in latitude, and to diminish her motion from the morn rising; but, to be retrograde, and withall to digresse in altitude, from the evening station. Again, the planet *Mercurie*, being Oriental Maturin, begins both waies to climb, that is, to mount higher day by day; but to digresse in latitude, being Oriental Vespertine: and when the Sunne hath ouertaken him within the distance of fifteene degrees, he stands still for foure daies vnmoueable. Within a while he descendeth from his altitude dayly, and goeth backe retrograde from the euen setting, namely, when the Sunne hideth him with his raies, to the Moone rising, when hee appeareth before the Sunne is vp. This starre onely, and the Moone, descend in as many daies as they ascend. But *Venus* ascendeth vp to her station in fifteene daies and the vantage. Again, *Saturne* and *Iupiter* are twice as long descending, and *Mars* foure times. See how great variety is in their nature, but the reason thereof is euident. For they which go against the vapour and heate of the Sunne do also hardly descend. Many secrets more of Nature, and lawes whereunto she is obedient, might be shewed about these things. As for example: The planet of *Mars*, whose course of all others can be least obserued, neuer maketh station but in quadrate aspect: as for *Iupiter*, in triangle aspect: and very seldome reuered from the Sunne 60. degrees, which number maketh six angled formes of the

heauen,

A heauen, that is to say, is the iust sixth part of the heauen: neither doth *Iupiter* shew his rising in the same signe this yeare, as in the former, saue onely in two signes, *Cancer* and *Leo*. The planet *Mercurie* seldome hath his euen rising in *Pisces*, but very often in *Virgo*, and the morn rising in *Libra*. In like manner, the morn rising in *Aquarius*, but very seldome in *Leo*. Neither becommeth he retrograde in *Taurus* and *Gemini*: and in *Cancer*, not vnder the 25 degree. As for the Moone, she entreth not twice in coniunction with the Sun in any other signe but in *Gemini*; and sometime hath no coniunction at all, and that only in *Sagittarius*. As for the last and first of the Moone, to be seene in one and the selfe same day or night, hapneth in no other signe but *Aries*, and few men haue had the gift to see it: and hereupon came *Lincolne* to be so famous for his eye sight. Also the planets *Saturne* and *Mars* are hidden with the Sun beames, and appeare not in the heauen at the most 170 daies: *Iupiter* 36, or at least ten daies wanting, *Venus* 60, or when least 52. *Mercurie* 31, or at least 17.

CHAP. XVIII.

¶ What is the cause that the Planets alter their colour.

The reason of the Planets altitudes is it that tempereth their colours, according as they be neerer or farther off from the earth. For they take the likenesse of the aire, into the coasts whereof they enter in their ascent: and the circle or circumference of another Planets motion coloureth them as they passe either way, ascending or descending. The colder setteth a pale colour, the hotter a red, and the windie a fearefull and rough hue. Onely the points and coniunctions of the *Abides*, and the utmost circumferences shew a darke blacke. Each planet hath a seuerall colour: *Saturne* is white, *Iupiter* cleare and bright, *Mars* fierie and red, *Venus* Orientall (or *Lucifer*) faire, Occidentall (or *Vesper*) shining, *Mercurie* sparkeling his raies; the Moone pleasant, the Sunne when he riseth burning, afterwards glittering with his beames. Vpon these causes the sight is intangled, and discovereth euen those stars also which are contained and fixed in the sky, more or lesse. For one while a number of them appeare thicke about the halfe Moone, when in a cleare and calme night she gently beautifieth them. Another while they are seen but here and there, insomuch as we may wonder that they are fled vpon the full Moone, which hideth them: or when the beams either of the Sun or other about said haue dazled our sight. Yea, the very Moone her selfe hath a feeling doubtlesse of the Sun beames, as they come vpon her: for those raies that come sidelong, according to the conuexitie of the heauen, giue but a darke and dim light to the Moone, in comparison of them that fall directly with straight angles. And therefore in the quadrangle aspect of the Sun she appeareth diuided in halfe: in the triangle she is well neere inuironed, but her circle is half empty and void, howbeit in the opposition she seemeth full: and againe, as she is in the waine she representeth the same formes, decreasing by quarters as she increased, with like aspects as the other three planets about the Sun.

CHAP. XIX.

¶ The reason of the Sunns motion, and the vnequalitie of daies.

As for the Sun himselfe, a man may obserue foure differences in his course, twice in the yeare making the night equall with the day, to wit, in the Spring and Autumne, for then he falleth iust vpon the centre of the earth, namely in the eight degree of *Aries* and *Libra*. Twice likewise exchanging the compasse of his race; to lengthen the day from the *Bruma* or mid-winter, in the eighth degree of *Capricorne*: and againe to lengthen the night from the Sommer Sunstid, being in as many degrees of *Cancer*. The cause of vnequall daies is the obliquitie of the Zodiack: whereas the one halfe iust of the world, to wit, six signes of the Zodiack, is at all times about and vnder the earth. But those signes which mount vpright in their rising, hold light a longer tract, and make the daies longer: whereas they which arise crooked and go by as passe away in shorter and swifter time.

CHAP. XX.

¶ Why lightnings are attributed to *Iupiter*.

Most men are ignorant of that secret, which by great attendance vpon the heauens, deepe Clerkes and principall men of learning haue found out: namely, that they be the fires of the three vppermost planets, which falling to the earth carry the name of lightnings: but those especially which are seated in the midst, to wit, about *Iupiter*, haply because participating the excessiue cold and moisture from the vpper circle of *Saturne*, and the immoderate heate from *Mars* that is next vnder, by this meanes he dischargeth the superfluitie, and hereupon it is commonly said, that *Iupiter* shooteth and darteth lightnings. Therefore, as out of a burning piece of wood a cole of fire flieth forth with a cracke; even so from a star is spit out as it were and voided forth this celestiall fire, carrying with it presages of future things: so as the heauen sheweth diuine operations even in these parcels and portions which are reiected and cast away as superfluous. And this most commonly hapneth when the aire is troubled, either because the moisture that is gathered moueth and stirreth forward that abundance to fall; or else for that it is disquered with the birth (as it were) proceeding from a great belled starre, and therefore would be discharged of such excrements.

CHAP. XXI.

¶ The distances of the Planets.

Many haue assaied to finde out the distance and eleuation of the planets from the earth; and haue set downe in writing, that the Sun is distant from the Moon 18 degrees, euen much as the Moone from the earth. But *Pythagoras*, a man of a quicke spirit, hath collected, that there are 126000 furlongs from the earth to the Moone, and a duple distance from her to the Sun, and so from thence to the twelue signes three times so much. Of which opinion was also our countreyman *Gallus Sulpitius*.

CHAP. XXII.

¶ Of the Planets musicke and harmonie.

But *Pythagoras* otherwhiles vsing the termes of Musicke, calleth the space betweene the earth and the Moone a Tonus, saying, that from her to *Mercurie* is halfe a tone, and from him to *Venus* in manner the same space. But from her to the Sun as much and half againe: and from the Sunne to *Mars* a Tonus, that is to say, as much as from the earth to the Moone. From him to *Iupiter* halfe a Tonus: likewise from him to *Saturne* halfe a Tonus: and so from thence to the signifer Sphere or Zodiacke, so much and halfe againe. Thus are composed seuen tunes, which harmonie they call Diapason, that is to say, the Generalitie, or whole state of consent and concord, which is perfect musicke. In which, *Saturne* moueth by the Dorick tune: *Mercury* by Phthongus; *Iupiter* by the Phrygian; and the rest likewise. A subtilty more pleasant ywis than needfull.

CHAP. XXIII.

¶ The Geometry or dimension of the world.

A Stadium or Furlong maketh of our paces an hundred twentie and fise, that is to say, fix hundred twenty and fise foot. *Possidonius* saith, That from the earth it is no lesse than forty stadia, to that height or altitude wherein thicke weather, windes, and clouds doe engender. Aboue which, the aire is pure, cleare, and light, without any troubled darkenesse. But from the cloudy and muddy region to the Moone is 2000000 stadia: from thence to the Sun fise thousand. By means of which middle space betweene it commeth to passe, that so exceeding great as the Sun is, he burneth not the earth. Many there be moreouer, who haue taught, that the clouds are eleuated to the height of nine hundred stadia. Vnknown these points are,

A are, and such as men cannot wind themselues out of: but as well may they now be deliuered to others, as they haue bin taught to vs: in which notwithstanding, one infallible reason of a Geometrical collection which neuer lieth, cannot be reiected, if a man will search deep into these matters. Neither need a man to seeke a iust measure hereof; for to desire that, were in maner a point of fond and foolish idlenesse, as if men had nothing else to do, but onely to make an estimate, and resolute vpon a guesse and coniecture therof. For, whereas it is plaine and apparent by the course of the Sunne, that the circle through which he passeth, doth containe three hundred threescore, and almost six degrees: and alwaies the dimetrent line, or diameter, taketh a third part of the circumference, and little lesse than a seuenth part of a 3. it is plain, that deducting one halfe thereof (by reason that the earth scituates as a centre, commeth betweene) the fixt part well neere of this great circuit which he makes about the earth (so farre as our mind doth comprehend) is the very height from the earth vp to the Sunne, but the twelfth part to the Moone; because she runneth so much a shorter compasse than the Sun: whereby it appeareth, that she is in the midst betweene the earth and the Sun. A wonder it is to see how farre the presumptuous minde and heart of man will proceed, and namely being inuited and drawne on by some little successe, as in the aboue named matter. The reason whereof ministrereth plenteous occasion of impudencie, for they who dared once to giue a guesse at the space betweene the Sun and the earth, are so bold to do the like from thence to heauen. For presuming, that the Sunne is in the midst, they haue at their fingers ends by and by the very measure also of the whole world. For look how many seuen parts the dimetrent hath, so many 22. parts or thereabout hath the whole circle: as if they had gotten the iust and certain measure of the heauen by leuel, and the plumb or perpendicular line. The Egyptians according to the reckoning which *Petofiris* and *Necpsos* haue inuented, do collect, That euery degree in the circle of the Moone, which is the least (as hath been said) of all other, containeth 33. stadia, and somewhat more: in *Saturne*, the greatest of all the rest, duple so much: and in the Sunne, which we said was the middest, the halfe of both measures. And this computation hath very great importance, for he that will reckon the distances betweene the circle of *Saturne* and the Zodiacke, by this calculation shall multiplie an infinite number of Stadia.

CHAP. XXIII. ¶ Of sudden Starres.

There remaine yet some few points as touching the world: for in the very heauen there be Starres that suddenly arise and appeare, whereof be many kindes.

CHAP. XXV.

¶ Of Comets or blazing stars, and celestiall prodigies, their nature, situation, and diuers sorts.



E These blazing starres the Greekes call *Cometas*, our Romanes *Crinities*: dreadfull to be seene, with bloudy haire, and all ouer rough and shagged in the top like the bush of haire vpon the head. The same Greekes call those starres *Pogonias*, which from the nether part haue a maine hanging downe, in fashion of a long beard. As for those named *Acrotie*, they brandish and shake like a speare of dart, signifying great swiftnesse. This was it, whereof *Tiberius Cesar* the Emperour wrote an excellent Poeme in his fift Consulship, the last that euer was seene to this day. The same, if they be shorter and sharpe pointed in the top, they vse to call *Xiphias*: and of all other palest they be, and glitter like a sword, but without any reies or beames: which another kind of them, named *Discens* (resembling a dish or coit, whereof it beareth the name, but in colour like to amber) putteth forth here and there out of the brimmes and edges thereof. As for *Pithens*, it is seene in forme of tunnes, enuironed within a smokie light, as if it were a concautie. *Cerantias* resembleth an horne: and such a one appeared when the whole manhood of Greece fought the battell of Salamis. *Lampadias* is like to burning torches: and *Hippens* to horse maines, most swift in motion, & turning round. There is also a white Comet with siluer haire, so bright and shining, that hardly a man can endure to looke vpon it, and in mans shape it sheweth the very image of a god. Moreouer, there be blazing starres that become all shaggie, compassed round with haire fringe, and a kind of maine. One heretofore appearing in the forme of a main, changed

ged into a speare, namely in the 108 Olympias, and the 398 yeare from the foundation of Rome. Noted it hath bin, that the shortest time of their appearance is a seuen-night, and the longest eighty daies: some of them moue like the wandering planets; others are fixed fast, and stir not. All in maner are seen vnder the very North star called *Charlemaignes* Wain: some in no certain part thereof, but especially in that white, which hath taken the name of the * Milk circle. *Aristotle* saith that many are seene together, a thing that no man else hath found out, so far as I can learne. Mary, boisterous windes and much heate of weather are foretold by them. There are of them seene also in Winter season, and about the Antarticke South pole; but in that place without any beames. A terrible one likewise was seene of the people in Ethiopia and Egypt, which the King who reigned in that age named Typhon. It resembled fire, and was pleited and twisted in manner of a wreath, grim and hideous to be looked on, and no more truly to be counted a star than some knot of fire. Sometimes it falleth out, that the planets and other stars are bespred all ouer with haire: but a Comet lightly is neuer seen in the west part of the heauen.

A fearefull star for the most part this Comet is, and not easily expiated; as it appeared by the late ciuill troubles when *Othanius* was Consul: as also a second time, by the intestine war of *Pompey* and *Cæsar*. And in our dayes about the time that *Claudius Cæsar* was poysoned, and left the Empire to *Domitius Nero*, in the time of whose reigne and gouernment there was another in manner continually seen, and euer terrible. Men hold opinion, that it is materiall for presage to obserue into what quarters it shooteth, or what stars power and influence it receiuet: also what similitudes it resembleth, and in what parts it shineth out and first ariseth. For if it be like vnto flutes or hautboies it portendeth somewhat to Musicians: if it appeare in the priuy parts of any signe, then let rustians, whore-masters, and such filthy persons take heed. It is respectiue to fine wits, and learned men, if it put forth a triangular or foure-square figure, with euen angles, to any scituations of the perpetuall fixed stars. And it is thought to presage, yea to sprinkle and put forth poison, if seen in the head of the Dragon either North or South.

In one only place of the whole world, namely in a Temple at Rome, a Comet is worshipped and adored, euen that which by *Augustus Cæsar* himselfe, of happy memorie, was iudged verie lucky and happy to him; who when it began to appeare, gaue attendance in person, as ouerseer of those playes and games which he made to *Venus genetrix*, not long after the death of his father *Cæsar*, in the colledge by him instituted and erected: testifying his ioy in these words, *In these very daies during the solemnities of my Plaies, there was seen a blasing star for seuen daies together, in that region of the sky which is vnder the North star Septentriones. It arose about the 11 houre of the day, bright it was and cleare, and evidently seene in all lands: by that star it was signified, as the common sort beleue, that the soule of (Iulius) Cæsar was receiued among the diuine powers of the immortal gods. In which regard, that mark or ensigne of a star was set to the head of that statue of Iulius Cæsar, which soone after we dedicated in the Forum Romanum.* These words published he abroad: but in a more inward ioy, to himselfe he interpreted and conceiued thus of the thing, That this Comet was made for him, and that himselfe was in it borne. And verily, if we wil confesse a truth, a healthfull, good, and happy presage that was to the whole world. Some there be who beleue, that these be perpetuall stars, and go their course round, but are not seen vnlesse they be left by the Sun. Others againe are of opinion, that they are ingendred casually by some humour, and the power of fire together, and thereby do melt away and consume.

CHAP. XXVI.

¶ *Hipparchus his opinion of the Stars. Also historicall examples of Torches, Lamps, Beames, Fiery Darts, opening of the Firmment, and other such impressions.*

Hipparchus the foresaid Philosopher (a man neuer sufficiently praised, as who proued the affinitie of stars with men, and none more than he; affirming also that our soules were parcell of heauen) found out and obserued another new star ingendred in his time, and by the motion thereof on what day it first shone, he grew presently into a doubt, Whether it hapned not very often that new stars should arise; and whether those starres also moued not, which we imagined to be fixed. The same man went so farre, that he attempted (a thing euen hard

A hard for God to performe, to deliuer to posteritie the iust number of starres. He brought the same stars within the compasse of rule and art, deuising certaine instruments to take their seuerall places, and set out their magnitudes: that thereby it might be easily discerned, not only whether the old died, and new were borne, but also whether they moued, and which way they tooke their course, likewise whether they increased or decreased. Thus he left the inheritance of heauen vnto all men, if haply any one could be found able to enter vpon it as lawfull heire.

There be also certaine flaming torches shining out in the sky, howbeit neuer seene but when they fall. Such a one was that which at the time that *Germ. Cæsar* exhibited a shew of Sword-fencers at vtterance, ran at noontide in sight of all the people. And two sorts there be of them, namely *Lampades*, which they call plaine torches; and *Bolides*, i. Lances, such as the Mutinians saw in their calamitie when their city was sacked. Herein they differ, for that those lampes or torches make long traines, whiles the forepart only is on a light fire: but *Bolides* burnes all ouer, and draweth a longer taile. There appeare and shine out after the same manner certain beams, which the Greekes call *Docus*: like as when the Lacedemonians being vanquished at sea, lost the empire and dominion of Greece. The firmament also is seene to thinke and open, and this they name *Chasma*.

CHAP. XXVII.

¶ *Of the strange colours of the Sky.*

There appeareth in the Sky also a resemblance of blood, and (than which nothing is more dread and feared of men) a fiery impression, falling from out of heauen to earth; like as it hapned in the 3 yeare of the 107 Olympias, at what time King *Philip* made all Greece to shake with fire and sword. And these things verily I suppose to come at certaine times by course of nature, like as other things, and not as the most part thinke, of sundry causes, which the subtil wit and head of man is able to deuise. They haue indeed been fore-runners of exceeding great miseries; but I suppose those calamities hapned not because these impressions were, but these therefore were procured to foretell the accidents that ensued afterward. Now for that they fall out so seldome, the reason thereof is hidden and secret, and so not knowne, as the rising of planets aboue said, the eclipses, and many other things.

CHAP. XXVIII. ¶ *Of the Heauen flame.*

Likewise there are seen stars together with the Sun all day long; yea, and very often about the compasse of the Sun other flames, like vnto garlands of corne eares; also circles of sundry colours, such as those were when *Augustus Cæsar* in the prime of his youth entered the city of Rome after the decease of his father, to take vpon him his great name and imperial title.

CHAP. XXIX. ¶ *Of Celestiall Crownes.*

Also the same garlands appeare about the Moone and other goodly bright stars which are fixed in the firmament. Round about the Sun there was seene an arch, when *Lu. Opimius* and *L. Fabius* were Consuls: as also a round circle, when *L. Porcius* and *M. Acilius* were Consuls.

CHAP. XXX. ¶ *Of sudden Circles.*

There appeared a circle of red colour when *L. Iulius* and *P. Rutilius* were Consuls. Moreover, there are strange eclipses of the Sunne, continuing longer than ordinarie; as namely when *Cæsar* Dictator was murdered. Moreover, in the wars of *Antony* the Sun continued almost a whole yeare of a pale wan colour.

CHAP. XXXI. ¶ *Many Suns.*

Over and besides, many Suns are seene at once, neither aboue nor beneath the bodie of the true Sunne indeed, but crosse-wise, and ouerthwart: neuer neere nor directly against the earth, neither in the night season, but when the Sun either riseth or setteth. Once they

they are reported to haue bene seene at noone day in Bosphorus, and continued from morne to euen. Three Suns together our Ancestors in old time haue often beheld, as namely when *Sp. Posthumus*, with *Q. Mutius*, *Q. Martius*, with *M. Porcius*, *M. Antonius*, with *P. Dolabella*, and *Mar. Lepidus*, with *L. Plancus*, were Consuls. Yea, and we in our daies haue seene the like, when *Cl. Caesar* (of famous memorie) was Consul, together with *Cornelius Orfitus* his Colleague. More than three we neuer to this day finde to haue been seene together.

CHAP. XXXII. ¶ *Many Moones.*

THree Moones also appeared at once, and namely when *Cn. Domitius* and *C. Fannius* were Consuls, which most men called Night Sunnes.

CHAP. XXXIII. ¶ *Day light in the Night.*

Of the Firmament by night there was seen a light, when *C. Calius* and *Cn. Papyrius* were Consuls, yea and oftentimes besides, so as the night seemed as light as the day.

CHAP. XXXIV. ¶ *Burning Shields or Targuets.*

A Burning shield ran sparkling from the West to the East, at the Suns setting, when *L. Valerius* and *C. Marius* were Consuls.

CHAP. XXXV. ¶ *A strange sight in the Sky.*

By report there was once seene, and neuer but once, when *Cn. Octavius* and *C. Scribonius* were Consuls, a sparkle to fall from a star: and as it approched the earth, it waxed greater; and after it came to the bignesse of the Moone it shined out and gaue light, as in a cloudy and darke day: then being retyred againe into the sky, it became, to mens thinking, a burning Lampe. This, *Licinius Syllanus* the Proconfull saw, together with his whole traine.

CHAP. XXXVI. ¶ *The running of Stars to and fro in the Sky.*

Seene there be also Stars to shoot higher and thither, but neuer for nought and to no purpose: for, from the same quarter where they appear, there rise terrible windes, and after them stormes and tempests both by sea and land.

CHAP. XXXvij. ¶ *Of the Stars called Castor and Pollux.*

I Haue seene my selfe in the campe, from the soldiers sentinels in the night watch, the resemblance of lightning to sticke fast vpon the speares and pikes set before the rampier. They settle also vpon the crosse Saile yards and other parts of the ship, as men do saile in the sea, making a kinde of vocall sound, leaping to and fro, and shifting their places as birds do which fly from bough to bough. Dangerous they be and vnlucky when they come one by one without a companion; and they drowne those ships on which they light, and threaten shipwrack, yea, and they set them on fire if haply they fall vpon the bottome of the keele. But if they appeare two and two together, they bring comfort with them, and foretell a prosperous course in the voiage, as by whose comming, they say, that dreadfull, cursed, and threatening meteor called *Helena* is chased and driuen away. And hereupon it is that men asigne this mighty power to *Castor* and *Pollux*, and invoke them at sea no lesse than gods. Mens heads also in the euen tyde are seene many times to shine round about, and to be of a light fire, which presageth some great matter. Of all these things there is no certain reason to be giuen, but secret these be, hidden with the maiestie of Nature, and referred within her cabinet.

CHAP. XXXviii. ¶ *Of the Aire.*

It remaineth now (thus much and thus far being spoken of the world it selfe) to wit, the starry heauen and the planets) to speake of other memorable things obserued in the Skie. For euen that part also hath our forefathers called *Caelum*, (i.) the Skie, which otherwise they name *aere*: euen all that portion of the whole, which seeming like a void and empty place, yeeldeth this vitall spirit whereby all things do liue. This region is seated beneath the Moone, and farre vnder that Planet (as I obserue it is in a manner by euery man agreed vpon.) And mingling together an infinite portion of the superiour coelestiall nature or elementarie fire, with

A with an huge deale likewise of earthly vapours, it doth participate confusedly of both: From hence proceed clouds, thunders, and those terrible lightnings. From hence come haile, frosts, shoures of raine, stormes and whirlwindes: from hence arise the most calamities of mortall men, and the continuall warre that nature maketh with her owne selfe. For these grosse exhalations as they mount vpward to the heauen, are beaten backe and driuen downward by the violence of the starres: and the same againe when they lift, draw vp to them those matters, which of their owne accord ascend not. For thus we see, that shoures of raine do fall, foggie mists and light clouds arise, riuers are dried vp, haile stormes come downe amaine, the Sunne beames doe scorch and burne the ground, yea, and driue it euery where to the middle centre: but the same againe vnbroken, and not losing their force, rebound backe and take vp with them whatsoeuer they haue drunke vp and drawne. Vapours fall from aloft, and the same returne againe on high: winds blow forcibly, and come empty, but backe they goe with a bootie, and carry away euery thing before them. So many liuing creatures take their wind and draw breath from about: but the same labourereth contrariwise, and the earth infuseth into the aire a spirit and breath, as if it were cleane void and empty. Thus whiles the Nature goes too and fro, as forced by some engin, by the swiftnesse of the heauen, the fire of discord is kindled and groweth hot. Neither may she abide by it, and stand to the fight, but being continually carried away, she rolleth vp and downe: and as about the earth shee spreadeth and pitcheth her tents, as it were, with an vnmeasurable globe of the heauen, so euer and anon of the clouds she frameth another skie. And this is that region where the winds raigne. And therefore their kingdom principally is there to be seene, where they execute their forces, and are the cause well nere of all other troubles in the aire. For thunderbolts and flashing lightnings most men attribute to their violence. Nay, more than that, therefore it is supposed that otherwhiles it raineth stones, because they were taken vp first by the winde: so as we may conlude, that they cause many like impressions in the aire. Wherefore many matters besides are to be treated of together.

CHAP. XXXIX. ¶ *Of ordinary and set seasons.*

It is manifest, that of times and seasons, as also of other things, some causes be certaine; others, casual and by chance; or, such as yet the reason thereof is vnknowne. For who need to doubt, that Summers and Winters, and those alternatiue seasons which we obserue by yearely course, are occasioned by the motion of the Planets. As therefore the Sunnes nature is vnderstood by tempering and ordering the yeare: so the rest of the starres and planets also haue euery one their proper and peculiar power, and the same effectually to shew and performe their owne nature. Some are fruitfull to bring forth moisture, that is turned into liquid raine: others to yeeld an humour either congealed into frosts, or gathered and thickened into snow, or else frozen and hardened into haile: some afford winds: others warmth: some hot and scorching vapours: some, dewes: and others, cold. Neither yet ought these starres to be esteemed so little as they shew in sight, seeing that none of them is lesse than the Moone, as may appeare by the reason of their exceeding height. Well then, euery one in their own motion, exercise their feuerall natures: which, appeareth manifestly by *Saturne* especially, who setteth open the gates for raine and shoures to passe. And not onely the seuen wandering starres be of this power, but many of them also that are fixed in the firmament; so often as they be either driuen by the excesse and approach of those planets, or pricked and prouoked by the casting and influence of their beams; like as we find it happeneth in the seuen stars called *Sucula*, which the Grecians of raine name *Hyades*, because they euer bring foule weather. Howbeit some, of their owne nature, and at certaine set times do cause raine, as the rising of the Kids. As for *Arcturus*, he neuer lightly appeareth without some tempestuous and stormie haile.

CHAP. XL. ¶ *The power of the Dog-starre.*

Who knoweth not, that when the Dogge-starre ariseth, the heate of the Sunne is fiery and burning; the effects of which starre are felt exceeding much vpon the earth. The seas at his rising do rage and take on, the wines in fellars are troubled, pooles also and standing waters doe stirre and moue. A wilde beast there is in *Egypt*, called *Orix*, which the *Egyptians* say doth stand full against the Dog-starre when it riseth, looking

looking wistly vpon it, and testifieth after a sort by sneezing, a kind of worship. As for dogs, no man doubteth verily, but all the time of the canicular daies they are most ready to run mad.

CHAP. XLII.

¶ That the stars haue their severall influences in sundry parts of the signes, and at diuers times.

Moreover, the parts of certaine signes haue their peculiar force, as appeareth in the Equinoctiall of Autumne, and in mid-winter, at what time we perceiue, that the Sun maketh tempests. And this is proued, not onely by raines and stormes, but by many experiments in mens bodies, and accidents to plants in the country. For some men are stricken by the Planet, and blasted: others are troubled and diseased at certaine times ordinarily, in their belly, sinewes, head, and minde. The Olive tree, the Aspe or white Poplar, and Willowes, turne or writh their leaues about at Mid-summer, when the Sun entreth Cancer. And contrariwise, in very Mid-winter, when he entreth Capricorne, the herbe Penyroiall floureth fresh, euen as it hangs within house, drie and ready to wither. At which time all parchments & such like bladders or skinnies are so pent and stretched with spirit and wind, that they burst withall. A man might maruell hereat, who marketh not by daily experience, that one herbe called * *Heliotropium*, regardeth and looketh toward the Sun euer as he goeth, turning with him at all houres, notwithstanding he be shadowed vnder a cloud. Now certaine it is, that the bodies of Oysters, Muskles, Cocles, and all shell fishes, grow by the power of the Moone, and thereby againe diminish: yea, and some haue found out by diligent search into Natures secrets, that the fibres or filaments in the liuers of rats and mice, answer in number to the daies of the Moones age: also that the least creature of all others, the Pismire, feeleth the power of this Planet, and alwaies in the change of the Moone ceaseth from worke. Certes, the more shame it is for man to be ignorant and vnskillfull, especially seeing that he must confesse, that some labouring beasts haue certaine diseases in their eyes, which with the Moone do grow and decay. Howbeit the excessiue greatnesse of the heauen and exceeding height thereof, diuided as it is into 72 signes, maketh for him, and serueth for his excuse. Now these signes are the resemblances of things or liuing creatures, into which the skillfull Astronomers haue with good respect digested the firmament. For example sake, in the taile of Taurus there be seuen, which they named in old time *Vergilie*, in the forehead other seuen called *Sucule*; and *Bootes*, who followeth after the wain or great Bear *Septentriones*.

CHAP. XLII.

¶ The causes of raine, showers, winds, and cloudes.

I Cannot denie but without these causes there arise raines and windes: for that certaine it is, how there is sent forth from the earth a mist sometimes moist, otherwhiles smokie, by reason of hot vapours and exhalations. Also that cloudes are ingendered by vapours which are gone vp on high, or else of the aire gathered into a waterie liquour: that they be thicke, grosse, and of a bodily consistence, wee guess and collect by no doubtful argument, considering that they ouer-shadow the Sun, which otherwise may be seene through the water, as they know well that diue to any depth whatsoeuer.

CHAP. XLIII.

¶ Of Thunder and Lightning.

Denie I would not therefore, but that the ferie impressions from stars aboue may fall vpon these cloudes, such as we oftentimes see to shoot in cleare and faire weather: by the force-ble stroke whereof, good reason it is, that the aire should be mightily shaken, seeing that arrowes and darts when they are discharged, sing and keepe a noise as they flie. But when they encounter a cloud, there arises a vapor with a dissonant sound (like as when a red hot yron maketh

A keth an hissing being thrust into water) & a smokie fume walmeth vp with many turnings like waues. Hereupon stormes do breed. And if this flatuositie or vapour doe struggle and wrestle within the cloud, from thence it commeth that thunderclaps be heard; but if it breake through still burning, then sieth out the thunderbolt: if it be longer time a struggling, and cannot pierce through, then leams and flashes are seene. With these, the cloud is clouen, with the other, burst in sunder. Moreover, thunders are nothing els but the blows and thumps giuen by the fires beating hard vpon the cloudes; and therefore presently the fiery chinkes and rifts of those cloudes do glitter and shine. Possible it is also, that the breath and winde eleuated from the earth, being repelled back, and kept downe by the stars, & so held in and restrained within a cloud, may thunder, whiles Nature choketh the rumbling sound, all the while it striueth and quarelleth; but sendeth forth a crack when it breaketh out, as we see in a bladder puffed vp with winde. Likewise it may be, that the same wind or spirit whatsoeuer, is set on fire by fretting and rubbing, as it violently passeth headlong downe. It may also be stricken by the conflict of two cloudes, as if two stones hit one against another; and so the leams and flashes sparkle forth, so as all these accidents happen by chance-medley, and be irregular. And hereupon come those bruiish & vain lightnings, such as haue no natural reason, but are occasioned by these impressions abouesaid. With these are mountains and seas smitten: and of this kind be all other blasts and bolts that do no hurt to liuing creatures. As for those that come from aboue, and of ordinary causes, yea, and from their proper stars, they alwaies preface and foretell future euent. In like manner as exhalation of the earth, void of all moisture: neither is it impossible, but that they do arise out of waters, breathing and sending out an aire, which neither can thicken into a mist, nor gather into cloudes: also they may be driuen by the lugitation and impulsio of the Sun, because the winde is conceived to be nought els but the fluctuation and waiaing of the aire, and that by many means also: for some we see to rise out of riuers, firths, and seas, euen when they be still and calme: as also others out of the earth, which winds they name *Altani*. And those verily when they come backe againe from the sea, are called *Tropai*: if they go onward, *Apogai*.

CHAP. XLIIII.

¶ What is the reason of the resounding and doubling of the Eccho.

BVt the windings of hills, and their often turnings, their many tops, their crests and ridges: also bending like an elbow or broken, and arched as it were into shoulders, together with the hollow noukes of vallies, do cut vnequally the aire that reboundeth them from which is the cause of reciprocal voices called Echoes, answering one another in many places, when a man doth holla or houe among them.

CHAP. XLV.

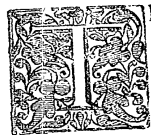
¶ Of Windes againe.

NOW there be certaine caues and holes which breed windes continually without end: like as that is one which we see in the edge of Dalmatia, with a wide mouth gaping, & leading to a deep downfall: into which if you cast any matter of light weight, be the day neuer so calm otherwise, there riseth presently a stormie tempest like a while puffe. The places name is Senta. Moreover, in the prouince Cyrenaica there is reported to be a rock consecrated to the South-wind, which without prophanation may not be touched with mans hand; but if it be, presently the South wind doth arise and cast vp heaps of sand. Also in many houses there be hollow places deuised & made by mans hand for receipt of wind, which being inclosed with shade and darknesse, gather their blasts. Whereby we may see how all windes haue one cause or other. But great difference there is betweene such blasts and winds. As for these, they be settled and ordinarie, continually blowing, which, not some smal tracts & particular places, but whole lands do feelee; which are not light gales nor stormy pusses, named *Aura* and *Procella*, but simply called winds, by the Masculine name *Venti*: which whether they arise by the continuall motion of the heauen, and the contrary course of the Planets; or whether this winde be that spirit of Nature that engendreth all things, wandering to and fro as it were in some wombe; or rather the

the aire, beaten and driuen by the vnlike influences and raies of the straying starrs or planets, and the multiplicite of their beames: or whether all winds come from their owne stars, namely these planets nearer at hand, or rather fall from them that be fixed in the firmament. Plaine and euident it is, that guided they by an ordinarie law of Nature, not altogether vnkowne, although it be not yet thoroughly knowne.

CHAP. XLVI.

¶ The Natures and observations of the Windes.



He old Greeke writers, not so few as twentie, haue set downe and recorded their observations of the Windes. I maruell so much the more, that the World being so at discord, and diuided into kingdomes, that is to say, dismembred as it was, so many men haue had care to seek after these things, so intricate and hard to be found out, and namely in time of wars, and amid those places where was no safe lodging nor abode, and especially when pyrats and rouers, common enemies to mankind, held welneere all passages: I maruell, I say, that at this day each man in his owne tract and countrey taketh more light and true knowledge of some things by their commentaries and bookes, who neuer set foot there, than they doe by the skill and information of home-born inhabitants; whereas now in time of so blessed and ioious peace, and vnder a prince who taketh such delight in the progresse of the State and of all good arts, no new thing is learned by farther inquisition, nay, nor so much as the inuentions of old writers are thoroughly vnderstood. And verily it cannot be said, that greater rewards were in those daies giuen, considering that the bountie of Fortune was dispersed, and put into many mens hands: and in truth most of these deepe Clerkes and learned men, sought out these secrets for no other reward or regard, than to doe good vnto posteritie. But now, mens manners are waxen old and decay; now, all good customes are in the waine: and notwithstanding that the fruit of learning be as great as euer it was, and the recompences as liberall, yet men are become idle in this behalfe. The seas are open to all, an infinite multitude of saylers haue discovered all coasts whatsoever; they saile through and arrive familiarly at euery shore: all for gaine and lucre, but none for knowledge and cunning. Their mindes altogether blinded, and bent vpon nothing but couetousnesse, neuer consider that the same might with more safetie be performed by skill and learning. And therefore seeing there be so many thousand poore sailers that hazard themselves on the seas, I will treat of the winds more curiously and exquisitely than perhaps becomes the present worke that is begun.

CHAP. XLVII.

¶ Many sorts of Windes.



Men in old time obserued foure Windes only, according to so many quarters of the world (and therefore Homer nameth no more): a blockish reason this was, as soone after it was iudged. The Age ensuing added eight more; and they were on the other side, their conceit too subtil and concise. The Modern sailers of late daies found out a meane betwene both: and they put vnto that short number of the first, foure windes and no more, which they tooke out of the later. Therefore euery quarter of the Heauen hath two windes apiece. From the equinoctiall Sunne-rising bloweth the East-winde, *Sub-solanus*: from the rising thereof in the Mid-winter, the South-east *Vulturnus*. The former of these twaine the Greekes call *Apeliotes*; and the later *Eurus*. From the Mid-day, riseth the South winde: and from the Sun-setting in Mid-winter the South-west, *Africus*. They also name these two, *Noms* and *Libs*. From the Equinoctiall going down of the Sun, the West winde *Fauonius* cometh: but from that in Summer season, the North-west *Corus*. And by the same Greekes they are termed *Zephyrus* and *Argesies*. From the North waine or pole Arctice, bloweth the North winde *Septentrio*: betwene which and the Sun rising in Summer, is the North-east winde *Aquilo*, named *Aparctias* and *Boreas* by the Greekes. A greater reckoning than this for number, is brought in by some, who haue thrust in foure more betwene, namely, *Thracias* betwene the North and the Summer setting of the Sunne: in like manner *Cacias*

A *Cacias* in the midst betwene the North-east *Aquilo*, and that of the Sun rising in the Equinoctiall *Sub-solanus*. Also, after the Sun rising in Sommer, *Phenicias* in the midst, betwene the South-east and the South. Last of all, betwene the South and the South-west, *Lybonotus*, iust in the midst, compounded of them both, namely, betwene the Noone-heat, and the Sun setting in Winter. But here they could not lay a straw, and see to make an end. For others haue set one more yet called *Mese*, betwene the North-east winde *Borias* and *Cacias*: also *Euronotus* betwene the South and the Southwest winds. Besides all these, there be some winds appropriate and peculiar to euery nation, which passe not beyond one certaine tract and region: as namely *Seyros* among the Athenians, declining a little from *Argesies* a winde vnkowne to other parts of Greece. In some other place it is more aloft, and the same then is called *Olympias*, as coming from the high hill Olympus. But the vsuall and customeable manner of speech vnderstandeth by all these names *Argesies* only. Some call *Cacias*, by the name of *Hellefontias*, and giue the same winds in sundry places diuers names. In the prouince likewise of Narbone, the most notorious winde is *Circius*, and for violence inferiour to none, driving directly before it very often, the current at Ostia, into the Ligurian sea. The same winde is not only vnkown in all other climats of the heauen, but reacheth not so much as to Vienna, a citie in the same prouince. A great & boisterous a winde as he is otherwise, yet a restraint he hath before he come thither, and is kept within few bounds by the opposition of a meane and small hill. *Fabianus* also auouches, that the South winds enter not so far as into *Aegypt*. Whereby, the law of Nature sheweth it selfe plainly, that euen windes haue their times and limits appointed.

C To proceed then, the Spring openeth the sea for sailers: in the beginning whereof, the West winds mitigate the Winter weather, at what time as the Sun is in the 23 degree of Aquarius, and that is the sixt day before the Ides of February. And this order holdeth in manner with all other winds, that I will set downe one after another; so that in euery leape yeare ye anticipate and reckon one day sooner, and then againe keep the same rule throughout all the foure yeares following. Some call *Fauonius* (which beginneth to blow about the 7 day before the Calends of March) by the name of *Chelidonium*, vpon the sight of the first Swallows; but many name it *O-rinthias*, comming the 71 day after the shortest day in winter, by occasion of the comming of birds: which wind bloweth for nine dayes. Opposite vnto *Fauonius* is the VVind which we called *Sub-solanus*. Vnto this VVind is attributed the rising of the *Vergilia* or seven stars, in as many degrees of Taurus, six daies before the Ides of May; which time is a southerly constitution: and to this Winde the North is contrarie. Moreover, in the hottest season of the Sommer, the Dog-star riseth, at what time as the Sun enteth into the first degree of Leo, which commonly is the 15 day before the Calends of August. Before the rising of this star for eight daies space or thereabout, the Northeast winds are aloft, which the Greekes call *Prodrumi*, i. forerunners. And two daies after it is risen, the same winds hold still more stiffely, and blow for the space of fortie daies, which they name *Etesie*. The Suns heate redoubled by the hotnesse of that star, is thought to be asswaged by them: and no winds are more constant, nor keep their set times better than they. Next after them come the Southerne winds againe, which are vsually vp, vntill the star *Arcturus* riseth, and that is nine daies before the Equinoctiall in Autumne. With it entereth *Corus*, and thus *Corus* beginneth the Autumne. And to this *Vulturnus* is contrarie. After that Equinoctiall, about 44 daies the *Vergilia* go downe, and begin winter, which season vsually falleth vpon the third day before the Ides of Nouember. This is the winter Northeast wind, which is far vnlike to that in Sommer, opposit and contrary to *Africus*. Now, a seven night before the Mid-winter day, and as much after, the sea is allaied and calme for the sitting and hatching of the birds Halciones, whereupon these daies tooke the name *Alcionis*: the time behind, plaith the part of Winter. And yet these boisterous seasons full of tempests, shut not vp the sea: for pyrats and rouers at the first forced men with present perill of death, to run headlong vpon their death, and to hazard themselves in Winter seas, but now a daies couerousnesse easeth men to do the like.

F The coldest winds of all other, be those which we said to blow from the North-pole, and together with them their neighbor, *Corus*. These winds do both allay and still all others, and also scatter and driue away clouds. Moist winds are *Africus*, and especially the South wind of Italy called *Austo*. Men report also, that *Cacias* in Pontus gathereth & draweth to it selfe clouds. *Corus* and *Vulturnus* are dry, but onely in the end when they giue ouer. The Northeast and the North,

North, engender snow. The North winde also bringeth in haile, so doth *Corus*. The South wind is exceeding hot and troublous withall. *Fulvurus* and *Favonius* be warme. They also be drier than the East, and generally all winds from the North and West are drier than from the South and East. Of all winds the Northern is most heathfull: the Southern wind is noisome, and the rather when it is drie, haply, because that when it is moist, it is the colder. During the time that it bloweth, living creatures are thought to be less hungry: the *Etesie* give over ordinarily in the night, & arise at the third houre of the day. In Spaine and Asia they blow from the East; but in Pontus, from the North: in other quarters from the South. They blow also after the Mid-winter, when they be called *Orimbia*, but those are more milde, & continue fewer daies. Two there be that change their nature together with their site and place: the South winde in Affrick bringeth faire weather, and the North wind there is cloudy. All winds keep their course in order for the more part, or els when one ceaseth, the contrary beginneth. When some are laid, & the next to them do arise, they go about from the left hand to the right, according to the Sun. Of their manner and order monthly, the prime or fourth day after the change of the Moone, doth most commonly determine. The same windes wil serue to saile contrariwise, by means of setting out the sailes: so as many times in the night, ships in sailing run one against another. The South winde raiseth greater billowes and more surging waues than the North: for that the South wind ariseth below from the bottome of the Sea; the other blustereth aloft, and troubleth the top of the water. And therefore after Southern winds, earth-quakes are most hurtful. The South wind in the night time is more boisterous, the Northern wind in the day. The winds blowing from the East, hold and continue longer than those from the West. The Northern winds give over commonly with an odde number: which obseruation serueth to good vse in many other parts of naturall things, and therefore the male winds are iudged by the odde number. The Sun both raiseth, and also laieth the windes. At rising and setting hee causeth them to be aloft: at noon-tide he represseth and keepeth them vnder, in Summer time. And therefore at mid-day or mid-night commonly the winds are down and lie still, for both cold and heat if they be immoderate, do spend and consume them. Also rain doth lay the winds: and most commonly from thence they are looked for to blow, where clouds break and open the skie to be seen. And verily *Endoxus* is of opinion (if wee list to obserue the least reuolutions) that after the end of every fourth yere, not only all winds, but other tempests and constitutions also of the weather, return againe to the same course as before. And alwaies the Lustrum or computation of the five yeres beginneth at the leap yere, when the Dog-star doth arise. Thus much touching general winds.

CHAP. XLVIII.

¶ Of sudden Blasts.

Now will we speake of sudden blasts, which being risen (as hath bin said before) by exhalations of the earth, and cast downe againe; in the meanwhile appeare of many fashions, enclosed within a thin course of clouds newly ouercast. For such as be vnconstant, wandring, and rushing in manner of land flouds (as some men were of opinion, as wee haue shewed) bring forth thunder and lighning. But if they come with a greater force, sway, and violence, and withall burst and cleaue a dry cloud asunder all abroad, they breed a storme, which of the Greeks is called *Ecnephias*; but if the clift or breach be not great, so that the wind be constrained to turne round, to roll and whistle in his descent, without fire (i.) lightning, it makes a whistle-puffe or ghusst called *Typhon* (i.) the storme *Ecnephias* aforesaid, sent out with a winding violence. This takes with it a peece broken out of a congealed cold cloud, turning, winding, and rolling it round, and with that weight maketh the owne fall more heauie, and changeth from place to place with a vehement and sudden whirling; the greatest danger and mischief that poore sailers haue at sea, breaking not onely their crosse saile yards, but also writhing and bursting in pieces the very snips: and yet a small matter is the remedy for it, namely, the casting of what is out against it as it commeth, which is of nature most cold. The same storme beating vpon a ship, is it selfe smitten backe againe with a violence, and snatcheth vp whatsoeuer it meeteth in the way aloft into the skie, carrying it back, and swallowing it vp on high. But if it breake out some greater hole of the said cloud, by it so borne down, and yet not altogether so broad as the abouenamed storm *Procella* doth, nor without a cracke; they call this boisterous winde

A wind *Turbo*, casting downe and ouerthrowing all that is next it. The same, if it be more hot and catching a fire as it rageth, is named *Prester*, burning, and withall laying along, whatsoeuer it toucheth and encountereth.

CHAP. XLIX.

¶ Other enormous kindes of Tempests.

NO *Typhon* commeth from the North, ne yet any *Ecnephias* with snow, or while snow lieth on the ground. This tempestuous winde, if when it brake the cloud burned light withall, hauing fire of the owne before, and caught it not afterward, it is very lightning; and differeth from *Prester*, as the flame from a cole of fire. Againe, *Prester* spreadeth broad with a flash and blast; the other gathereth round with forcible violence. *Typhon* moreover or *Vortex*, differeth from *Turbo* in flying backe, and as much as a crash from a cracke. The storme *Procella* from them both, in breadth: and to speake more truly, rather scattereth than breaketh the cloud. There riseth also vpon the sea a darke mist, resembling a monstrous beast; and this is ever a terrible cloud to sailers. Another likewise called a Columne or Pillar, when the humour and water ingendred is so thicke and stiffe congealed, that it standeth compact of it selfe. Of the same sort also is that cloud which draweth water to it, as it were into a long pipe.

CHAP. L.

¶ In what Lands Lightnings fall not.

IN Winter and Summer seldome are there any Lightnings, and that is long of contrary causes: because in Winter the aire is driuen close together, and thickened with a deeper course of clouds: besides, all the exhalations breathing and rising out of the earth, being stark, congealed, and frozen hard, do extinguish cleane what fire vapour soeuer otherwise they receiue: which is the reason that Scythia and other cold frozen quarters thereabout, are free from lightnings. And *Aegypt* likewise vpon the contrarie cause, and exempt from Lightnings; namely, exceeding heate: for the hot and dry exhalations of the earth, gather into very slender, thin, and weake clouds. But in the Spring and Autumne, lightnings are more rise; because in both those seasons, the causes as well of Summer as Winter, are confused and corrupt. And this is the reason also, that lightnings are common in our Italie; for that the aire being more moueable and wauiing, by reason of a kinder Winter and a cloudie Summer, is alwaies of the temperature of Spring or Autumne. In those parts also of Italy which lie off from the North, and encline to warmth (as namely in the tract about Rome and Campania) it lightneth in Winter and Summer alike, which happeneth in no other part thereof.

CHAP. LI.

¶ Sundry sorts of Lightnings, and Wonders thereof.

VERIE many kindes of Lightnings are set downe by Authors. Those that come drie, burne not at all, but onely dissipate and disperse. They that come moist, burne not neither, but blast things, and make them looke dusky. Now a third kinde there is, which they call Bright and Cleare, and that is of a most strange and wonderfull nature; whereby tuns and such like vessels are drawne drie, and their sides, hoops, and heads, neuer toucht therewith or hurt, nor any other shew and token thereof is left behinde: Gold, copper, and siluer money is melted in the bags, and yet the very bags no whit scorched, no nor the wax of the seale hurt and defaced, or put out of order. *Martia* a noble Ladie of Rome being great with childe, was strucke with lightning: the childe she went withall was killed within her, and she without any harme at all liued still. Among the *Casiline* prodigies it is found vpon Record, that *M. Herennius* (a Counsellor and States-man of the incorporate towne Pompeianum) was in a faire and cleare day smitten with Lightning.

THe Antient Tuscans by their learning do hold, that there be nine gods that send forth Lightnings, and those of eleuen sorts: for *Iupiter* (say they) casteth three at once. The Romans haue obserued two of them, and no more; attributing those in the day time to *Iupiter*; and them in the night to *Summanus* or *Pluto*. And these verily be more rare, for the cause aforementioned; namely, the coldness of the aire above. In *Hetruria*, they suppose that lightnings break also out of the earth, which they call *Inferaj*. Infernall; and such be made in Mid-winter. And these they take to be terrene and earthly, and of all most mischieuous and execrable: neither be those generall and vniuersall lightnings, nor proceeding from the stars, but from a very neere and more troubled cause. And this is an euident argument for distinction; that all such as fall from the upper skie above, strike assant and side-wise: but those which they call earthly, smite straight and directly. But the reason why these are thought to issue forth of the earth is this; because they fall from out of a matter nearer to the earth, inasmuch as they leaue no markes of a stroke behind: which are occasioned by force not from beneath, but coming full against. Such as haue searched more subtilly into these matters, are of opinion, that these lightnings come from the Planet *Saturne*, like as the burning lightning from *Mars*: And with such lightning was *Volturni* (a most welthy citie of the Tuscans) burnt full and whole to ashes. Moreover, the Tuscans call those lightnings Familiar, which presage the fortune of some race, and are significant during their whole life: and such are they that come first to any man, after he is newly entred into his owne patrimonie or familie. Howbeit their iudgement is, that these priuat lightnings are not of importance and fore-tokening about ten yerres; vnlesse they happen either vpon the day of first marriage, or of wedding. As for publique lightnings, they be not of force about 30 yerres, except they chance at the very time that townes or colonies be created and planted.

CHAP. LIII. ¶ Of raising or calling out Lightnings by Coniuration.

It appeareth vpon record in Chronicles, that by certaine sacrifices and prayers, Lightnings may be either compelled or easily intreated to fall vpon the earth. There goeth a report of *old* in *Hetruria*, that such a lightning was procured by exorcismes and coniuurations, when there entered into the citie *Volturni* (after all the territory about it was destroyed) a monster which they named *Volta*. Also, that another was raised and coniuured by *Porfenna* their King. Moreover, *L. Piso* (a writer of good credit) reporteth in his first booke of *Annales*, that *Numa* before him praised the same feat many a time and often: and when *Tullus Hostilius* would haue imitated him and done the like (for that he obserued not all the ceremonies accordingly) was himselfe stricke and killed with lightning. And for this purpose, sacred groues we haue and altars, yea and certaine sacrifices due thereto. And among the *Iupiters* surnamed *Statores*, *tonantes*, and *Feraces*, we haue heard that one also was called *Elicius*. Sundry and diuers are mens opinions as touching this point, and euery man according to his owne liking and fancie of his minde. To beleue that Nature may be forced and commanded, is a very audacious and bold opinion: but it is as blockish on the other side, and fencelesse, to make her benefits of no power and effect; considering that in the interpretation of Lightning, men haue thus farre forth proceeded in skill and knowledge, as to foretell when they will come at a set and prescript day; and whether they will fordoe and frustrate the dangers pronounced, or rather open other destinies, which lie hidden and an infinite sort of publicke and priuat experiments of both kinds are to be found. And therefore (since it hath so pleased Nature) let some men be resolu'd herein, and others subtil: some may allow thereof, and others condemne the same. As for vs, we will not omit the rest which in these matters are worth remembrance.

CHAP. LIIII. ¶ Generall rules of Lightning.

That the Lightning is seene before the Thunderclap is heard, although they come indeed jointly both together, it is certainly knowne. And no maruell, for the eye is quicker to see light, than the eare to heare a sound. And yet Nature doth so order the number and measure,

- A** measure, that the stroke and the sound should accord together. But when there is a noise, it is a signe of the lightning proceeding of some naturall cause, and not sent by some god: and yet euermore this is a breath or winde that commeth before the thunderbolt: and hereupon it is, that euery thing is shaken and blasted ere it be smitten; neither is any man stricken, who either saw the lightning before, or heard the thunderclap. Those lightnings that are on the left hand, be supposed to be luckie and prosperous, for that the East is the left side of the world: but the coming therof is not so much regarded as the return, whether the fire leap back after the stroke giuen, or whether after the deed done and fire spent, the spirit and blast abovesaid retire backe againe. In that respect the Tuscans haue diuided the heaven into 16 parts. The first, is from the North to the Suns rising in the Equinoctiall line: the second, to the Meridian line, or the South: the third, to the Sun-setting in the Equinoctiall: and the fourth taketh vp all the rest from the said West to the North star. These quarters againe they haue parted into foure regions apiece: of which eight from the Sun-rising, they called the Left, & as many again from the contrary part, the Right. Which considered, most dreadfull and terrible are those lightnings, which from the Sun-setting reach into the North; and therefore it skilleth very much, from whence lightnings come, and whither they go: the best thing obserued in them is, when they return into the Easterly parts. And therefore when they come from that first and principall part of the skie, and haue recourse again into the same, it is holden for passing good hap: & such was the signe and token of victories giuen (by report) to *Sylla* the Dictatour. In all other parts of the element they be lesse fortunate or fearful. They that haue written of these matters, haue deliuered in writing, that there be lightnings, which to vtter abroad is held vnlawful; as also to giue care vnto them, if they be disclosed, vnlesse they be declared either to parents, or to a friend and guest. How great the vanity is of this obseruation, was at Rome, vpon the blasting of *Iunoes* temple, found by *Scaurus* the Confull, who soone after was President of the Senate. It lightneth without thunder, more in the night than day time. Of all creatures that haue life and breath, man only it doth not alwaies kill; the rest, it dispatcheth presently. This priuiledge & honour we see Nature hath giuen to him; whereas otherwise so many great beasts surpass him in strength. All other creatures smitten with lightning, fall downe vpon the contrary side; man onely (vnlesse he turne vpon the parts stricken) dyeth not. Those that are smitten from above vpon the head, lie downe and sinke directly. He that is stricken watching, is found dead with his eies winking and close shut; but whosoever is smitten sleeping, is found open eied. A man thus coming by his death, may not by law be burned: Religion hath taught, that he ought to be entred and buried in the earth. No liuing creature is set a fire by lightning, but it is breathlesse first. The wounds of them that be smitten with thunderbolts, are colder than all the body besides.

CHAP. LV.

¶ What things are not smitten with Lightning.

- O**F all those things which grow out of the earth, Lightning blasteth not the Laurell tree, nor entrench at any time aboute five foot deep into the ground; and therefore, men fearful of lightning, suppose the deeper caues to be the surest and most safe: or els booths made of skins of sea-beasts, which they call Seales, or Sea-calues; for of all creatures in the sea, this alone is not subiect to the stroke of lightning; like as of all flying foules the Eagle, (which for this cause is imagined to be the armour-bearer of *Iupiter*, for this kinde of weapon.) In Italie betwene *Tarracina* and the temple of *Feronia*, they gaue ouer in time of warre, to make towers and forts; for not one of them escaped, but was ouerthrowne with lightning.

CHAP. LVI.

¶ Of strange and prodigious raine, to wit, of Milke, Bloud, Flesh, Iron, Wooll, Tyles, and Bricks.

- B**esides these things aboue, in this lower region vnder heauen, we finde recorded in monuments, that it rained milke and bloud, when *M. Acilius* and *C. Porcius* were Consuls. And many times else besides it rained flesh, as namely, whiles *L. Volumnius* and *Serv. Sulpicius*

pitius were Consuls: and look what of it the foules of the aire caught not vp nor carried away, G it neuer putrified. In like manner, it rained yron in the Lucanes countrey, the yere before that *M. Crassus* was slaine by the Parthians, and together with him all the Lucanes his souldiers, of whom there were many in his army. That which came downe in this raine resembled in some sort Sponges: and the Wisards and Southfayers being sought vnto, gaue warning to take heed of wounds from above. But in the yere that *L. Paulus*, and *C. Marcellus* were Consuls, it rained wooll about the Castle Carissa, neare to which a yere after, *T. Annius Milo* was slaine. At the time that the same *Milo* pleaded his owne cause at the bar, there fell a raine of tyles and bricks, as it is to be seen in the Records of that yere.

CHAP. LVII.

¶ *Of the rustling of Armour and sound of Trumpets heard from Heauen.*

IN the time of the Cimbrian warres, we haue bin told, that Armour was heard to rustle, and the trumper to sound out of heauen. And this happened very often both before and after those wars. But in the third Consulship of *Marius*, the Amerines and Tudertes saw men in armes in the skie, rustling and running one against another from the East and West, and might behold those of the West discomfited. That the very firmament it selfe should be of a light fire, it is no maruel at all, for oftentimes it hath been seene, when clouds haue caught any greater deale of fire.

CHAP. LVIII.

¶ *Of Stones falling downe from the Skie.*

AMong the Greeks there is much talke of *Anaxagoras Clazomenius*, who by his learning and skill that he had in Astronomie, foretold in the second yere of the 78 Olympias, what time a stone should fall from out of the Sun: and the same happened accordingly in the day time, in a part of Thracia neere the riuer Aegos, which stone is shewed at this day as big as a waine load, carrying a burnt and adust colour: at what time as a comet or blazing starre also burned in those nights. Which if any man beleue that it was fore-signified, must needs also confesse, that this diuinitie or fore-telling of *Anaxagoras* was more miraculous and wonderfull than the thing it selfe: and then farewell the knowledge of Natures workes, and welcome confusion of al, in case we should beleue that either the Sun were a stone, or that euer any stone were in it. But, that stones fall oftentimes downe, no man will make any doubt. In the publicke place of Exercise in Abydos, there is one at this day vpon the same cause preserved and kept for to be seene, and held in great reuerence: it is but of a meane and small quantity, yet it is that which the selfe-same *Anaxagoras* (by report) fore-signified that it should fall in the mids of the earth. There is one also at Cassandria, which was in old time vsually called Potidæa, a colony from thence deducted. I my selfe haue seene another in the territorie of the Vocantians, which was brought thither but a little before.

CHAP. LIX. ¶ *Of the Rainbow.*

THose which we call Rain-bowes are seene often without any wonder at all, or betokening any great matter: for they portend not so much as rainy or faire daies, to trust vpon. But manifest it is, that the Sun beames striking vpon an hollow cloud, when their edge is repelled, are beaten backe against the Sun: and thus ariseth varietie of colours by the mixture of clouds, aire, and fire light together. Certes, they neuer are knowne but opposite to the Sun, nor at any time otherwise than in forme of a Semicircle: ne yet in the night season, although *Aristotle* saith there was a Rain-bow seen by night: howbeit he confesseth, that it could not possibly be but at the full of the Moone. Now they happen for the most part in winter, namely from the Autumne Equinoctiall, as the daies decreafe and wax shorter. But as daies grow longer againe, that is to say, after the Spring Equinoctiall, they be not seene no more than about the Summer Sunstee, when daies are at longest. But in Bruma, namely when they bee shortest

A test, they chance very often. The same appeare aloft, when the Sun is low, and below, when he is aloft. Also, they be of narrower compasse, when the Sun either riseth or setteth, but their body spreadeth broad: and at noone narrower it is, and final, yet greater and wider in circumference. In Sommer time they be not seene about noon-tide, but after the Autumne Equinoctiall, at all houres; and neuer more at once than twaine. The rest of the same nature I see few men doe make any doubt of.

CHAP. LX.

¶ *Of Haile, Snow, Frost, Mist, and Dew.*

HAile is ingendred of Raine congealed into an Ice: and Snow of the same humor growne together, but not so hard. As for frost, it is made of dew frozen. In winter Snowes fall, and not haile. It haileth oftner in the day time than in the night, yet haile sooner melteth by farre than snow. Mists be not seene neither in Summer, nor in the cold weather. Dewes shew not either in frost, or in hot seasons; neither when winds be vp, but only after a calm and cleere night. Frosts dry vp wet and moisture, for when the yce is thawed and melted, the like quantitie of water in proportion is not found.

CHAP. LXI.

¶ *Of the shapes of Clouds.*

SVndry colours and diuers shapes are seene in clouds, according as the fire intermingled therein is either more or lesse.

CHAP. LXII.

¶ *Of the properties of weather in diuers places.*

MOREouer, many properties there be of the weather, peculiar to certain places: the nights in Africke bedewie in Winter. In Italy, about Locri and the lake Velinus, there is not a day but a Rainbow is seene. At Rhodes and Syracuse, the aire is neuer so dimme and cloudy, but one houre or other the Sun shineth out. But such things as these shall be related more fully in due place. Thus much of the Aire.

CHAP. LXIII.

¶ *Of Earth, and the nature thereof.*

THE Earth followeth next: vnto which alone of all parts of the world, for her singular benefits we haue giuen the reuerend and worshipfull name of Mother. For like as the Heauen is the (mother) of God, euen so is she of men. She it is that taketh vs when wee are comming into the world, nourisheth vs when we are new borne: and once being come abroad, euer sustaineth and beareth vs vp, and at the last when wee are reiect and forsorne of all the world besides, she embraceth vs: then most of all other times, like a kinde mother, she couereth vs all ouer in her bosom; by no merit more sacred than by it, wherewith she maketh vs holy and sacred: euen bearing our tombes, monuments, and titles, continuing our name, and extending our memorie, thereby to make recompence and weigh against the shortnes of our age: whose last power we in our anger wish to be heavy vnto our enemy, and yet she is heavy to none, as if wee were ignorant that she alone is neuer angry with any man: waters ascend vp, & turn into clouds, they congeale and harden into haile, sviel they do into waues and billows, & down they hasten headlong into brooks and land-floods. The aire is thickened with clouds, & rageth with winds and stormes. But she is bountifull, mild, tender ouer vs, & indulgent, ready at all times to attend and wait vpon the good of mortall men. See what she breeds being forced! nay, what she yeeldeth of her owne accord! what odoriferous smells, and pleasant sauors! what wholesome iuices and liquors, what soft things to content our feeling, what louely colors doth she giue to please our eie, how faithfully and iustly doth she repay with vsury that which was lent and credited out vnto her! Finally, what store of all things doth shee feed and nourish for our sake! Alas

poor wretch, pestiferous and hurtfull creatures, when the vitall breath of the aire was too blame to giue them life, the could not otherwise chuse but receiue them, after they were sown in her, and being once ingendred and bred, keepe and maintain them. But in that they prooued afterwards bad and venomous, the fault was to be laid vpon the parents that ingendred them, and not to be imputed vnto her. For, shee entertaineth no more a venomous serpent after it hath stung a man: nay, more than that, she requireth punishment, for them that are slow and negligent of themselves to seeke it. Shee it is that bringeth forth medicinable herbes, and euermore is in maner to be delivered of some thing or other, good for man. Ouer and besides, it may be thought and beleueed, that for very pittie of vs shee ordained and appointed some poisons, that when we were weary of our life, cursed famine (most aduerse and crosse of all other to the merits of the earth) should not consume and wattle vs with languishing and pining consumption, and so procure our death; that high and steepe rockes should not dash and crush our bodies in pieces; nor the ouerthwart and preposterous punishment by the halter, wreath the our necks, and stop that vital breath which we seek to let out and be rid of: last of all, that we might not worke our owne death in the deep sea, and being drowned feed fishes, and be buried in their bellies; neere the edge and point of the sword cut and pierce our bodie, and so put vs to dolorous paine. So that it is no doubt, but in a pittifull regard and compassion of vs, shee hath ingendred that payson, by one gentle draught whereof, going most easily downe, we might forgoe our life, and die without any hurt and skin broken of our body, yea, and diminish no one drop of blood: without grievous paine, I say, and like onely to them who be athirst: that being in that manner dead, neither foule of the aire, nor wilde beast prey vpon or touch our bodies, but that he should be reserved for the earth, who perished by himselfe and for himselfe; and, to confesse and say the truth, the earth hath bred the remedy of all miseries, how soeuer we haue made it a venome and poison to our life. For after the like sort we imploy iron and Steele, which we cannot possibly be without. And yet we should not do well and iustly to complain, in case shee had brought it forth for to do hurt and mischief. Now surely to this only part of Nature and the world, we are vnthankfull, as though shee serued not mans turne for all dainties; not for contumely and reproch to be misused. Cast shee is into the sea, or else to let in peeces and frithes, eaten away with water. With yron tooles, with wood, fire, stone, burdens of corne tormented shee is euery houre: and all this much more to content our pleasures and wanton delights than to serue vs with naturall food and necessary nourishment. And yet these misusages which shee abideth aboue, and in her outward skin, may seeme in some sort tolerable. But we, not satisfied therewith, pierce deeper and enter into her very bowels, we search into the veines of gold and siluer, we mine and dig for copper and lead metals. And for to seek out gemmes and some little stones, we sinke pits deep within the ground. Thus we plucke the very heart-strings out of her, and all to weare on our finger one gemme or precious stone, to fulfill our pleasure and desire. How many hands are worne with digging and deluing, that one ioynt of our finger might shine again. Surely, if there were any diuels or infernall spirits beneath, ere this time verily these mines (for to feed couetousnes and riot) would haue brought them vp aboue ground. Maruell we then, if shee hath brought forth some things hurtfull and noisome: But sauage beasts (I well thinke) ward and saue her, they keepe sacrilegious hands from doing her iniurie. Nay ywis it is nothing so. Dig we not amongst dragons and serpents: and together with veines of gold, handle we not the roots of poisoned and venomous herbes? howbeit this goddesse we finde the better appaied, and lesse discontented for all this misusage, for that the end and issue of all this wealth tends to wickednesse, to murder and wars, and her whom we diench with our blood, we couer also with vnburned bones. Which neuertheless, as if shee did reprocue and reproch vs for this rage and furie of ours, shee her selfe couereth in the end, and hideth close euen the wicked parts of mortall men. Among other imputations of an vnthankfull minde, I may well count this also, That we be ignorant of her nature.

CHAP. LXIII.

¶ Of the forme of the earth.

The first and principall thing that offereth it selfe to be considered, is her figure, in which by a generall consens we doe all agree. For surely we speake and say nothing more commonly, than the round ball of the earth; and confesse that it is a globe enclosed within 2 poles. But yet the forme is not of a perfect and absolute roundle, considering so great height

A of hills and such plaines of downs: howbeit, if the compasse thereof might be taken by lines, the ends of those lines would meet iust in circuit, and proue the figure of a iust circle. And this the very consideration of naturall reason doth force and conuince, although there were not those causes which we alledged about the heauen. For in it the hollow bending conuexitie boweth and beareth vpon it selfe, and euery way resteth vpon the centre thereof, which is that of the earth. But this, being solid and close compact, ariseth still like as if it swelled, stretching and growing forth. The heauen bendeth and inclineth toward the centre, but the earth goeth from the centre, whiles the world with continuall volubilitie and turning about it, driueth the huge and excessive globe thereof into the forme of a round ball.

CHAP. LXV.

¶ Of the Antipodes, whether there be any such. Also of the roundnesse of water.

Marvell there is here, and great debate betweene learned men; and contrariwise those of the leaud and ignorant multitude: for they hold, that men are ouerspread on all parts vpon the earth, and stand one against another, foot to foot: also that the Zenith or point of the heauen is euen and alike vnto all: and in what part soeuer men be, they go still and tread after the same manner in the midst. But the common sort aske the question and demand, How it happeneth that they opposite iust against vs fall not into Heauen? as if there were not a reason also ready, That the Antipodes againe shall maruell why we fell not downe. Now there is reason that commeth betweene, carrying a probabilitie with it euen to the multitude, were it neuer so blockish and vnapt to learne; That in an vneuen and vnequall Globe of the Earth, with many ascents and degrees, as if the figure thereof resembled a Pine apple, yet neuertheless it may bewell enough inhabited all ouer in euery place. But what good doth all this, when another wonder as great as it ariseth? namely, That it selfe hangeth, and yet falleth not together with vs: as if the power of that Spirit especially which is enclosed in the World were doubted: or that any thing could fall, especially when nature is repugnant thereto, and affordeth no place whither to fall: for like as there is no seat of Fire, but in fire; of Water, but in water; of Aire and Spirit, but in aire; euen so, there is no roome for Earth but in earth, seeing all the Elements besides, are ready to put it backe from them. Howbeit, wonderfull it remaineth still, How it should become a Globe, considering so great darrenesse of Plaines and Seas! Of which doubtfull opinion, *Dicaearchus* (a right learned man as any other) is a fauourer; who, to satisfie the curious endeauiours of Kings and Princes, had a charge and commission to Iucell and take measure of mountaines: of which he said, that Pelion the highest, was a mile and a halfe high by the plumbe rule; and collected thereby, that it was nothing at all to speake of, in comparison of the vniuersall rotunditie of the whole. But surely in my conceit, this was but an vncertaine guesse of his, since that I am not ignorant, that certaine tops of the Alpes, for a long tract together, arise not vnder fiftie miles in heighth.

But this is it that troubles the vulgar sort most of all, if they should be forced to beleuee, that the forme of water also gathers round in the top. And yet there is nothing in the whole world more euident to the sight, for the drops euery where not onely as they hang, appeare like little round balls, but also if the light vpon dust, or rest vpon the hairy downe of leaues, we see they keepe a perfect and exquisite roundnes. Also in cups that are filled brim full, the middle part in the top swell most. Which thing considering the thinnes of the humour, and the softnes thereof settling flat vpon it selfe, are sooner found out by reason, than by the eie. Nay, this is a thing more wonderfull, that when cups are filled to the full, put neuer so little more liquor thereto, the ouerplus will run ouer all about: but contrariwise it falleth out, if you put in any solid weights, yea, and it were to the weight of twenty deniers or French crowns in a cup. Forsooth the reason is this, for that these things receiued within lift vp the liquor aloft to the top, but poured vpon the tumour that beareth aloft about the edges, they must needs glide off and run by. The same is the reason why the land cannot be seen by them that stand vpon the hatches of the ship, but very plainly at the same time from the top of the masts. Also as a ship goeth a far off from the land, if any thing that thineth and giueth light be fastened to the top-gallant, it seemeth from the land side to goe downe and sinke into the sea by little and little, vntill at last it be hidden cleane.

clean. Last of all the very Ocean, which we confesse to be the vtmost and farthest bound enuironing the whole globe, by what other figure else could it hold together, and not fall downe, since there is no other banke beyond it to keepe it in? And euen this also is as great a wonder, how it commeth to passe, although the sea grow to be round, that the vtmost edge thereof falleth not downe? Against which, if the seas were euen, flat, and plaine, and of that forme as they seem to be, the Greeke Philosophers to their own great ioy and glory do conclude, and proue by Geometricall subtil demonstration, that it cannot possibly be that the waters should fall. For seeing that waters run naturally from aloft to the lower parts, and that all men confesse, that this is their nature, and no man doubteth that the water of the sea came euer in any shore so far as the deuexitie would haue suffered; doubtlesse it appeares, that the lower a thing is, the neerer it is to the centre; and that all the lines which from thence are sent out to the next waters, are shorter than those which from the first waters reach to the vtmost extremitie of the sea. Hereupon the whole water from euery part thereof bends to the centre, and therefore falls not away, because it inclines naturally to the inner parts. And this we must beleue that Nature the work-mistresse framed and ordained so, to the end that the earth being dry, could not by it selfe alone, without some moisture keepe any consistence; and the water likewise could not abide and stay vnlesse the earth vpheld it; in which regard they were mutually to embrace one another, and so be vnited, whiles the one opened all the creeks and nouks, and the other ran wholly into the other, by means of secret veins within, without, and aboue, like ligaments to claspe it, yea, and so break out at the vtmost tops of hills; whether being partly caried by a spirit, and partly expressed forth by the ponderositie of the earth, it mounteth as it were in pipes: and so far is it from danger of falling away, that it leapeth vp to the highest and loftiest things that be. By which reason it is euident also, why the seas swell not and grow, notwithstanding so many riuers daily run into them.

CHAP. LXXVJ.

¶ How the matter is vnited and knit to the earth.

THe earth therefore in his whole globe is in the midst thereof, hemmed in by the sea running round about it. And this need not to be fought out by reason and argument, for it is knowne already by good prooffe and experience.

CHAP. LXXVIJ.

¶ Navigation vpon the sea and great Riuers.

From Gades and Hercules pillars, the West sea is at this day nauigable and sailed all ouer euen the whole compasse of Spaine and France. But the North Ocean was for the most part discovered vnder the conduct of *Augustus Caesar* of famous memorie, who with a fleet compassed all Germanie, and brought it about as far as to the cape of the Cimbrians: and so from thence hauing kenned and viewed the vast and wide sea, or else taken notice thereof by report, he passed to the Scythian Clymat and those cold coasts, frozen, and abounding with too much moisture. For which cause there is no likelihood that in those parts the seas are at an end, whereas there is such excessive wet that all stands with water. And neere vnto it from the East, out of the Indian sea, that whole part vnder the same clyme of the world which bendeth vnder the Caspian sea, was sailed throughout by the Macedonian armies, when *Seleuchus* and *Antiochus* reigned, who would needs haue it so, that *Seleuchus* and *Antiochus* should beare their names. About the Caspian sea also many coasts and shores of the Ocean haue bin discovered, and by piece-meale rather than all whole at once, the North of one side or other hath been sailed or rowed ouer. But yet to put all out of coniecture, there is a great argument collected out of the Mere *Mæotis*, whether it be a gulfie and arme of that Ocean (as I know many haue beleueed) or an ouerflowing of the same, and diuided from it by a narrow piece of the continent. In another side of Gades, from the same West, a great part of the South or Meridian gulfie round about Mauritania is at this day sailed. And the greater part verily of it, like as of the East also, the victories of *Alexander the Great* viewed and compassed on euery side, on an farre as vnto the Arabian Gulfe. Wherein when *Gaius Caesar*, the sonne of *Augustus*, warred,

A warred in those parts, the marks and tokens by report were seen remaining after the Spaniards shipwracke. *Hanno* likewise in the time that Carthage flourished in puissance sailed round about from Gades to the vtmost bounds and lands end of Arabia, and set downe that his voyage in writing. Like as also *Himilco* was at the same time sent out in a voyage to discover the vtrer coasts of Europe. Moreouer, *Cornelius Nepos* writeth, that in his time one *Endoxius* a great sailer, at what time he fled from King *Lathyrus*, departed out of the Arabian gulfe, and held on his course as far as Gades. Yea, and *Cælius Antipater* long before him reporteth, that he saw the man who had sailed out of Spain to Ethiopia for traffique of merchandise. The same *Nepos* maketh report as touching the compassing about of the North, That vnto *Qu. Metellus Celer*, Colleague to *C. Afranius* in the Consulship, but at that time Proconsull in Gaule; certain Indians were given by a King of the Suciains, who as they sailed out of India for traffick as merchants, were driuen by tempests, and cast vpon Germanie. Thus the seas flowing on all sides about this globe of the earth, diuided and cut into parcels, becaue vs of a part of the world, so as neither from thence hither, nor from hence thither there is a thorow-faire and passage. The contemplation whereof serueth fit to discover and open the vanitie of men, seemes to require and challenge of me, that I should proiect to the view of the eye, how great all this is, whatsoever it be, and wherein there is nothing sufficient to satisfie and content the seuerall appetite of each man.

CHAP. LXXVIJ.

¶ What portion of the earth is habitable.

NOW first and formost me thinks men make this reckoning of the earth, as if it were the iust halfe of the globe, and that no portion of it were cut off by the Ocean: which notwithstanding, clasping round about all the midst thereof, yeelding forth and receiuing againe all other waters besides, and what exhalations fouer that go out for clouds, and feeding withall the very stars, so many as they be, and of so great a bignesse, what a mighty space thinke you will it be thought to take vp and inhabit, and how little can there be left for men to inhabit? surely the possession of so vast and huge a deale must needs be exceeding great and infinite. What say you then to this, That of the earth which is left the heauen hath taken away the greater part? For whereas there be of the heauen five parts, which they call Zones, all that lieth vnder the two vtmost, to wit, on both sides about the poles, namely this here, which is called *Septentrio*, that is to say, the North, and the other ouer against it, named the South, it is ouercharged with extreme and rigorous cold, yea, and with perpetuall frosts and ice. In both Zones it is alwaies dim and darke, and by reason that the aspect of the more milde and pleasant planet is diuerted cleane from thence, the light that is, sheweth little or nothing, and appeareth white with the frost onely. Now the middle of the earth, whereas the Sun hath his way, and keepeth his course, scorched and burnt with flames, is euen parched and fried againe with the hot gleames thereof, being so neere. Those two only on either side about it, namely betweene this burnt Zone and the two frozen, are temperate; and euen those haue not accessse and passage the one to the other, by reason of the burning heate of the said planet. Thus you see that the heauen hath taken from the earth three parts, and what the Ocean hath plucked from it besides no man knoweth. And euen that one portion remaining vnto vs, I wor not whether it be not in greater danger also. For the same Ocean entring, as we will shew, into many armes and creeks, keepeth a roaring against the other gulfes and seas within the earth, and so neere comes vnto them, that the Arabian gulfe is not from the Egyptian sea about 115 miles: the Caspian likewise from the Ponticke but 375. Yea, and the same floweth between, and entreteth into so many armes, as that thereby it diuideth Africke, Europe, and Asia asunder. Now what a quantity of land it taketh vp may be collected and reckoned at this day, by the measure and proportion of so many riuers, and so great Meres. Adde thereto both Lakes and pooles, and withall take from the earth the high mountaines bearing vp their heads aloft into the sky, so as the eye can hardly reach their heights: the woods besides, and steepe descents of the valleys, the Wilderesses, and waste wildes left desart vpon a thousand causes. These so many pieces of the earth, or rather, as most haue written, this little pricke of the world (for surely the earth is nothing else in comparison of the whole) is the only matter of our glory. This, I say,

is the very feat thereof: here we seeke for honors and dignities; here we exercise our rule and G
authoritie: here we couet wealth and riches: here all mankind is set vpon stirs and troubles;
here we raise ciuill wars still one after another, and with mutuall massacres and murders wee
make more roome in the earth. And to let passe the publike furious rages of nations abroad,
this is it, wherein we chase and driue out our neighbor borderers, and by stealth dig turfe from
their soile to put vnto our owne: and when a man hath extended his lands, and gotten whole
countries to himselfe far and neere, what a goodly deale of earth enioyeth he: and say that he
set out his bounds to the full measure of his couetous desires, what a great portion thereof shal
he hold when he is once dead, and his head laid low.

CHAP. LIX.

¶ That the earth is in the middest of the world.

THAT the earth is in the midst of the whole world it appeareth by manifest and vndoubted
reasons: but most evidently by the equal houres of the Equinoctial; for vnlesse it were
in the midst, the Astrolabe and instruments called *Diophe* haue proued, that nights and
daies could not possibly be found equall: and those aboue-said instruments aboue all other
conferme the same: seeing that in the Equinoctial, by one and the same line both rising and
setting of the Sun are seen; but the Sommer Sun rising, and the Winter setting, by their owne
seuerall lines: which could by no means happen, but that the earth resteth in the centre.

CHAP. LXX.

¶ Of the unequal rising of the stars: of the Eclipse, both where
and how it commeth.

NOW three circles there be infolded within the Zones afore named, which distinguish the
inequalities of the dayes: namely the Sommer Solstitiall Tropicke, from the highest
part of the Zodiacke in regard of vs, toward the North Clyme. And against it another
called the Winter Tropicke toward the other Southern Pole: and in like maner the Equino-
ctial, which goes in the mids of the Zodiacke circle. The cause of the rest, which we wonder
at, is in the figure of the very earth, which together with the water is by the same arguments
knowne to be like a globe: for so doubtlesse it commeth to passe, that with vs the stars about
the North pole neuer go downe, and those contrariwise about the Meridian neuer rise. And
again, these here be not seene of them, by reason that the globe of the earth swelleth vp in the
mids between. Again, Trogloditine and Egypt confining next vpon it, neuer set eye vpon the
North pole stars, neither hath Italy a sight of Canopus, named also *Berenices haire*. Likewise
another, which vnder the Empire of *Augustus* men firnamed *Casaris Thronon*: yet be they stars
there of speciall marke. And so evidently bendeth the top of the earth in the rising, that *Ca-*
*no**pus* at Alexandria seemeth to the beholders eleuate aboue the earth almost one fourth part
of a signe: but if a man looke from Rhodes, the same appeareth after a sort to touch the verie
horizon: and in Pontus, where the eleuation of the North pole is highest, not seene at all: yea,
and this same pole at Rhodes is hidden, but most in Alexandria. In Arabia all hid it is at the
first watch of the night in Nouember, but at the second it sheweth. In Meroe, at Midsummer
in the euening it appeareth for a while; but some few daies before the rising of *Arcturus* seene
it is with the very dawning of the day. Sailers by their voiaiges finde out and know these stars
most of any other, by reason that some seas are opposite vnto some stars; but other lie flat and
incline forward to other: for that also those pole stars appeare suddenly, and rising out of the
sea, which lay hidden before vnder the winding compasse as it were of a ball. For the heauen
riseth not aloft in this higher pole, as some men haue giuen out; else should these stars be seen
in euery place: both those that vnto the next Sailers are supposed to be higher, the same seeme
to them as farre off drowned in the sea. And like as this North pole seemeth to be aloft vnto
those that are situate directly vnder it; so to them that be gone so far as the other deuexitie
or fall of the earth, those aboue-said starres rise vp aloft there, whiles they decline downward
which here were mounted on high. Which thing could not possibly fall out but in the figure
of

A of a ball. And hereupon it is that the inhabitants of the East perceiue not the eclipses of Sun
or Moone in the euening, no more than those that dwell West in the morning: but those that
be at noone in the South they see very oft. At what time *Alexander* the great won that famous
victorie at Arbela, the Moone by report was eclipsed at the second houre of the night; but at
the very same time in Sicily she arose. The eclipse of the Sun, which chanced before the Ca-
lends of May, when as *Vipsianus* and *Fomelius* were Consuls (being not many yeares past) was
seene in Campania, betwene the 7 and 8 houres of the day: but *Corbulo*, a General Comman-
der then in Armenia, made report, that it was seene there betwene the tenth and 11 houres of
the same day; by reason that the compasse of the globe discouereth and hides some things to
some, and other to others. But if the earth were plaine and leuell, all things should appeare at
once to all men; for neither should one night be longer than another, ne yet should the day of
12 houres appeare euen and equall to any, but to those that are seated in the mids of the earth,
which now in all parts agree and accord together alike.

CHAP. LXXI.

¶ What is the reason of the day light vpon earth.

AND hence it commeth, that it is neither night nor day at one time in all parts of the
world, by reason that the opposition of the globe brings night, and the round compasse
or circuit thereof discouereth the day. This is knowne by many experiments. In Africk
C and Spaine there were raised by *Hanibal* high watch-towers; and in Asia for the same feare of
rouers and pyrats, the like helpe of beacons was erected; wherein it was noted oft times, that
the fires giuing warning afore-hand (which were kindled at the sixth houre of the day) were de-
seried by them that were farthest off in Asia at the third houre of the night. *Philonides* the cur-
rier or Post of the same *Alexander* aboue named, dispatched in 9 houres of the day 1200 stadia,
euen as far as from Sicyone to Elis: and from thence againe (albeit he went downe hill all the
way) he returned oftentimes, but not before the third houre of the night. The cause was, for
that he had the Sun with him in his first setting out to Elis, and in his returne backe to Sicy-
one he went full against it, met with it, and ere he came home ouerpasse it, leauing it in the
West behind going from him. Which is the reason also, that they who by day light saile west-
ward in the shortest day of the yeare, rid more way than those who saile all night long at the
same time, for that the other do accompany the Sun.

CHAP. LXXII.

¶ The Gnomonick art of the same matter: as also of the first Diall.

ALSO the instruments seruing for the houres, as Quadrants and Dials, will not serue for all
places, but in euery 300 stadia, or 500 at the farthest, the shadowes that the Sun casteth
change; and therefore the shadow of the style in the Dial, called the Gnomon, in Egypt
at noone tide in the Equinoctial day is little more in length than halfe the Gnomon. But in
E the city of Rome the shadow wanteth the ninth part of the Gnomon. In the towne Ancona it
is longer than it is in a 35 part. But in Venice at the same time and houre the shadow and the
Gnomon be all one.

CHAP. LXXIII.

¶ Where and when there be no shadowes at all.

IN like manner they say, that in the towne Syene (which is aboue Alexandria 50 stadia) at
noone tide in the midst of Sommer there is no shadow at all: and for further experiment
thereof, let a pit be sunke in the ground and it will be light all ouer in euery corner. Where-
by it appeareth, that the Sun then is iust and directly ouer that place, as the very Zenith there-
of. Which also at the same time hapneth in India aboue the riuer Hypafis, as *Onesicritus* hath
set downe in writing. Yea and it is for certaine knowne, that in Berenice a city of the Troglod-
ites, and from thence 4820 stadia in the same countrey, that in Berenice a city of the Troglod-
ites built at the first vpon the very banke of the Red sea, for the pleasure of chasing and hunting
of

of Elephants) the selfe same is to be seen 45 daies before the Summer Sunsted, and as long after, and that for 90 daies space all shadowes are cast into the South. Again, in the Isle Meroe, the capitall place of the Æthiopian nation, inhabited 5000 stadia from Syene vpon the Riuer Nilus, twice in the yeare the shadowes are gon, and none at all seen; to wit, when the Sun is in the 18 degree of Taurus, and the 14 of Leo. In the country of the Oretes within India there is a mountaine named Maleus, neere which the shadowes in Summer are cast into the South, and in Winter into the North. There for 15 nights and no more is the star Charles-wain neere the pole to be seen. In the same India at Patales (a most famous and frequented port) the Sun ariseth on the right hand, and all shadowes fall to the South, Whiles *Alexander* made abode there, *Onesicritus* a captaine of his wrote, that it was obserued there, that the North star was seen the first part only of the night: also in what places of India there were no shadowes, there the North star appeared not: and that those quarters were called *Ascia*, (i. without shadow) neither keepe they any reckoning of houres there.

CHAP. LXXIV.

¶ Where twice in the yeare the shadowes go contrarie waies.

But throughout all Trogloditine, *Crotaphenes* hath written, that the shadowes two times in the yeare for 45 daies fall contrarie waies.

CHAP. LXXV.

¶ Where the day is longest, and where shortest.

It comes thus to passe, that by the variable increment of the day light, the longest day in Meroe doth comprehend 12 Equinoctial houres, and 8 parts of one houre about; but in Alexandria 14, in Italy 15, in Britaine 17: where in Sommer time the nights being light and short, by infallible experience shew that which reason forceth to beleue; namely, that at Midsummer time, as the Sun maketh his approach neere vnto the pole of the world, the places of the earth lying vnderneath hath day continually for six moneths, and contrariwise night, when the Sun is remote as far as Bruma. The which *Pythias* of Massiles hath written of Thule, an Island distant Northward from Britaine six daies sailing. Yea, and some affirme the same of Mona, an Island distant from Camalodunum, a towne of Britaine, about 200 miles.

CHAP. LXXVI. ¶ Of Dials and Quadrants.

This cunning and skill of shadowes, named Gnomonice, *Anaximenes* the Milesian, the disciple of *Anaximander* aboue named, inuented: and hee was the first also that shewed in Lacedemon the Horologe or Dial which they call Sciometericon.

CHAP. LXXVII. ¶ How the dayes are obserued.

The very day it selfe men haue after diuers manners obserued. The Babylonians count for day all the time betweene two Sun-risings: the Athenians, betweene the settings. The Vmbrians from noone to noone. But all the common sort euery where, from day light untill it be darke. The Roman Priests, and those that haue defined and set out a ciuill day, likewise the Egyptians and *Hipparchus*, from midnight to midnight. That the spaces or lights are greater or lesse betwixt Sun risings, neere the Sunsteds, than the equinoctials, it appeareth by this, that the position of the Zodiacke about the middle parts thereof is more oblique and crooked, but toward the Sunsted more freight and direct.

CHAP. LXXVIII.

¶ The reason of the varietie and difference of sundry Countries and Nations.

Hereunto we must ioine such things as are linked to celestiall causes. For doubtlesse it is, that the Æthiopians by reason of the Sunnes vicinitie are scorched and tanned with the heate thereof, like to them that be adust and burnt, hauing their beards and bush of haire curled. Also, that in the contrarie Climate of the world to it, in the frozen and icie regions

gions the people haue white skins, haire growing long downward, and yellow; but are fierce and cruell by reason of the rigorous cold aire: howbeit the one as well as the other in this mutabilitie are dull and grosse, and the very legs do argue the temperature: for in the Æthiopians the iuice or bloud is drawne vpward againe by the naturall heate. But among the nations Septentrionall the same is driuen to the inferior parts, by reason of moisture apt to fall downward. Here breed noisome and hurtfull wilde beasts; but there be ingendred creatures of sundry and diuers shapes, especially birds. Tall they are of bodilily stature, as well in one part as the other: in the hot regions by the occasionall motion of fire: in the other by the moist nourishment. But in the midst of the earth there is an wholesome mixture from both sides: the whole Tract is fertill and fruitfull for all things, the habit of mens bodies of a mean and indifferent constitution, the colour also shewing a great temperature. The fashions and manners of the people are ciuill and gentle, their senses cleare and lightsome, their wits pregnant and capable of all things within the compasse of Nature: they also beare soueraigne rule, and sway empires and monarchies, which those vttermost nations neuer had. Yet true it is, that euen they who are out of the temperate Zones may not abide to be subiect, nor accommodate themselves to these: for such is their sauage and brutish nature that it vrgeth them to liue solitarie by themselves.

CHAP. LXXIX.

¶ Of Earthquakes.

The Babylonians were of this opinion, that earthquakes and gaping chinks, and all other accidents of that nature are occasioned by the power and influence of the planets, but of those three only to which they attribute lightnings: and by this means, namely as they keepe their course with the Sun, or meet with him; and especially when this concurrence is about the quadratures of the heauen. And surely if it be true which is reported of *Anaximander*, the Milesian naturall Philosopher, his prescience and foreknowledge of things was excellent, and worthy of immortalitie; who, as it is said, forewarned the Lacedemonians to looke wel to their city and dwelling houses, for that there was an earthquake toward: which hapned accordingly, when not only their whole city was shaken, and fell downe, but also a great part of the mountain Taygetus, which bare out like to the poupe of a ship, broken as it were from the rest, came down too, wholly couering the foresaid ruines. There is reported another shrewd guesse of *Pherecydes*, who was *Pythagoras* his master, and the same likewise diuine and propheticall: he by drawing water out of a pit both foresaw and also foretold an earthquake there. Which if they be true, how far off I pray you may such men seeme to be from God, euen while they liue here on earth. But as for these things verily, I leaue it free for euery man to weigh and deeme of them according to their owne iudgement; and for mine owne part I suppose, that without all doubt the windes are the cause thereof. For neuer beginneth the earth to quake but when the sea is still, and the weather so calme withall, that the birds in their flying cannot houer and hang in the aire, by reason that all the spirit and winde which should beare them vp is withdrawn from them: ne yet at any time, but after the windes are laid, namely when the blast is pent and hidden within the veines and hollow caues of the earth. Neither is this shaking in the earth any other thing than is thunder in the cloud; nor the gaping chinke thereof ought else but like the clift whereout the lightning breaketh, when the spirit inclosed within strugleth and stirreth to go forth at libertie.

CHAP. LXXX.

¶ Of the gaping chinks of the earth.

After many and sundry sorts the earth therefore is shaken, and thereupon ensue wondrous effects: in one place the walls of cities are laid along: in another they be swallowed vp in a deepe and wide chawne: here are cast vp mighty heaps of earth; there are let out Ri- uers of water, yea and sometimes fire doth breathe forth, and hot springs issue abroad: in another place the course and chanell of riuers is turned clean away and forced backward. There goeth before and commeth with it a terrible noise: one while a rumbling more like the loowing and

and bellowing of beasts: otherwhiles it resembles a mans voice, or else the clattering and rustling of armor and weapons, beating one vpon another according to the qualitie of the matter that catcheth and receiveth the noise, or the fashion either of the hollow cranes within, or the cranny by which it passeth, whiles in a narrow way it taketh on with a more slender and whistling noise: and the same keepeth an hoarse din in winding and crooked caues, rebounding againe in hard passages; roaring in moist places, waiving and floting in standing waters, boiling and chafing against solid things. And therefore a noise is often heard without any earthquake, and neuer at any time shaketh it simply after one and the same manner, but trembles and waggeth to and fro. As for the gaping chink, sometimes it remaineth wide open, and sheweth what it hath swallowed vp; otherwhiles it closeth vp the mouth, and hideth all, and the earth is knit together so againe, as there remaine no marks and tokens to be seene: notwithstanding many times it hath deuoured cities, and drawne into it a whole tract of ground and fields. Sea coasts and maritime regions most of all other feeble earthquakes. Neither are the hilly countries without this calamitie: for I my selfe haue known for certain, that the Alps and Apenine haue often trembled. In the Autumne also and Spring there happen more earthquakes than at other times, like as lightnings. And hereof it is that France and Egypt least of all other are shaken: for that in Egypt the continuall Sommer, and in France the hard Winter, is against it. In like manner, earthquakes are more rise in the night than in the day time: but the greatest vse to be in the morning and euening. Toward day light there be many; and if by day, it is vsually about noon. Their fortune also to be when the Sun and Moone are eclipsed, because then all tempests are asleepe and laid to rest. But especially, when after much raine there followes a great time of heate; or after heate store of raine.

CHAP. LXXXj.

¶ Signes of Earthquake comming.

Sailers also haue a certaine foreknowledge thereof, and guesse not doubtfully at it, namely when the waues swel suddenly without any gale of wind, or when in the ship they are shocked with billowes shaking vnder them: then are the things seen to quake which stand in the ship, as well as those in houses, and with a rustling noise giue warning before-hand. The foules likewise of the aire sit not quietly without feare. In the sky also there is signe thereof; for there goeth before an earthquake, either in day time, or soon after the Sun is gon downe, a thin streak or line as it were of a cloud, lying out in a great length. Moreouer, the water in wells and pits is more thicke and troubled than ordinary, casting out a sinking sent.

CHAP. LXXXij.

¶ Remedies or helps against Earthquakes toward.

But a remedie there is for the same, such as vaults and holes in many places do yeeld: for they vent and breathe out the wind that was conceiued there before: a thing noted in certain townes, which by reason they stand hollow, and haue many sinks and vaults digged to conuey away their filth, are lesse shaken: yea, and in the same townes, those parts which be pendant be the safer: as is well seen in Naples, where that quarter thereof which is follied and not hollow is subiect to such casualties. And in houses the arches are most safe, the angles also of walls, yea, and those posts which in shaking will jog to and fro euery way. Moreouer, walls made of brick or earth take lesse harme when they be shaken in an earthquake. And great difference there is in the very kinde and manner of earthquakes, for the motion is diuers: the safest is, when houses as they rocke keep a trembling and warbling noise: also when the earth seemeth to swell vp in rising, and again to settle down and sink with an alternatiue motion. Harmlesse it is also when houses run on end together by a contrary stroke, and butt or jure one against another; for the one mouing withstandeth the other. The bending downward in maner of waiving, and a certain rolling like to surging billowes is it that is so dangerous, and doth all the mischief: or when the whole motion beareth and forceth it selfe to one side. These quakings or tremblings of the earth giue ouer when the winde is once vented out: but if they continue still, then they cease not vntill forty daies end, yea and many times it is longer ere they stay, for some of them haue lasted the space of a yeare or two.

CHAP.

CHAP. LXXXIII.

¶ Monstrous Earthquakes seene neuer but once.

Here hapned once (which I found in the books of the Tuscans learning) within the territory of Modena, whiles *Z. Marius* and *S. Iulius* were Consuls, a great strange wonder of the earth; for two hills encountred together, charging as it were, and with violence assaulting one another, yea and retyring againe with a most mighty noise. It fell out in the day time, and between them there issued flaming fire and smoke mounting vp into the sky; while a great number of Roman Gentlemen (from the highway *Æmylia*) and a multitude of seruants and passengers stood and beheld it. With this conflict and running of them together all the villages vpon them were dashed and broken to pieces: very much cattell that was within died therewith. And this hapned the yeare before the war of our Associates: which I doubt whether it were not more pernicious to the whole land of Italy, than the ciuill wars. It was no lesse monstrous a wonder that was knowne also in our age, in the very last yeare of *Nero* the Emperour (as we haue shewed in his acts) when medows and oliue rowes (notwithstanding the great publick port way lay betweene) passed ouerthwart one into anothers place, in the Marrucine territory, within the lands of *Vestius Marcellus* a gentleman of Rome, Procurator vnder *Nero* in his affaires.

CHAP. LXXXIV.

¶ Wonders of Earthquakes.

Here happen together with earthquakes deluges also and inundations of the sea, being infused and earring into the earth with the same aire and wind, or else receiued into the hollow receptacle as it setleth down. The greatest earthquake in mans memory was that which chanced during the empire of *Tiberius Cæsar*, when twelue cities of Asia were laid leuell in one night. But the earthquakes came thickest in the Punick war, when in one yeare were reported to be in Rome 57. In which yeare verily, when the Carthaginians and Romans fought a battell at Thrasymenus lake, neither of both armies tooke notice of a great earthquake. Neither is this a simple euill thing, nor the danger consisteth only in the very earthquake, and no more: but that which it portendeth is as bad or worse. Neuer abode the city of Rome any earthquake, but it gaue warning thereof before hand of some strange accident and vnhappy euent following.

CHAP. LXXXV.

¶ In what places the seas haue gone backe.

The same cause is to be rendred of some new hill or piece of ground not seen before; when as the said winde within the earth, able to huffe vp the ground, was not powerful enough to breake forth and make issue. For, firme land groweth not only by that which Riuers bring in (as the Isles *Echinades*, which were heaped and raised vp by the riuer *Achelous*; and by *Nilus* the greater part of Egypt, into which, if wee belecue *Homer*, from the Island *Pharus* there was a cut by sea of a day and a nights sailing) but also by the retiring and going backe of the sea, as the same poet hath written of the *Circeia*. The like (by report) hapned both in the bay of *Ambracia* for ten miles space, and also in that of the Athenians, for five miles, neere *Piræum*: also at *Ephesus*, where sometime the sea beate vpon the temple of *Diana*. And verily, if we giue eare to *Herodotus*, it was all a sea from aboute Memphis to the Ethyopian hills: and likewise from the plaines of Arabia. It was sea also about *Ilium*, and the flat of *Teuthrania*; and all that leuell whereas the riuer *Mæander* now runneth by goodly medowes.

CHAP. LXXXVI.

¶ The reason of Islands that newly appeare out of the sea.

Here be lands also that put forth after another manner, and all at once shew on a sudden in some sea; as if Nature cried quittance with her selfe, and made euen, paying one for another, namely by giuing againe that in one place, which those chawnes and gaping gulfs tooke away in another.

The second Booke of

CHAP. LXXXVII.

¶ *What Islands haue sprung vp, and when.*

THese famous Islands long since, to wit, Delos and Rhodes, are recorded to haue growne out of the sea: and afterwards others that were lesse, namely Anaphe beyond Melos, and Nea, betwene Lemnus and Hellespont. Alone also, betwene Lebedus and Teos, Thera likewise, and Therasia, among the Cyclades, which shewed in the fourth yere of the 135 Olympias. Moreouer, among the same Isles 130 yeres after, Hiera, which is the same that Automate. And two furlongs from it, after 110 yeres, Thia, euen in our time, vpon the 8 day before the Ides of Iuly, when *M. Iunius Syllanus* and *L. Balbus* were Consuls.

CHAP. LXXXVIII.

¶ *What lands the Seas haue broken in betweene.*

EVEN within our kenning, neere to Italy, betwene the isles *Æoliae*. In like maner neer *Creta* there was one shewed it selfe with hot fountaines out of the sea, for a mile and halfe; and another in the 3 yere of the 143 Olympias, within the Tuscan gulf, and this burned with a violent winde. Recorded it is also, that when a great multitude of fishes flored ebbe about it, those persons died presently that did feed thereof. So they say that in the *Campaine* gulf the *Pithecusæ* Islands appeared. And soon after, the hill *Epopos* in them (at what time as suddenly there burst forth a flaming fire out of it) was laid leuell with the plain champion. Within the same also there was a town swallowed vp by the sea: and in one earthquake there appeared a standing poole; but in another, by the fall and tumbling downe of certain hills, grew the Island *Prochyta*. For after this maner also Nature hath made Islands; thus she dis-ioyned *Sicily* from *Italy*, *Cyprus* from *Syria*, *Eubœa* from *Æolia*, *Atalante* and *Macris* from *Eubœa*, *Besbycus* from *Bithynia*, *Leucoïtia* from the promontorie and cape of the *Syrenes*.

CHAP. LXXXIX.

¶ *What Islands came to ioine vnto the Maine.*

AGaine, shee hath taken Islands from the sea, and ioyned them to the firme land; namely, *Antissa* to *Lesbos*, *Zephyria* to *Halicarnassus*, *Aethusa* to *Myndus*, *Dromiscos* and *Perni* to *Miletus*, and *Nartheclusa* to the promontorie *Parthenius*. *Hybanda*, sometime an Isle of *Ionis*, is now distant from the sea 200 stadia. As for *Syrie*, *Epheusus* hath it now in the midland parts far from the sea. So *Magnesia* neighbouring to it, hath *Derasitas* and *Sophonis*. As for *Epidauros* and *Oricum*, they are no more Islands at this day.

CHAP. XC.

¶ *What lands haue been turved wholly into sea.*

NATURE hath altogether taken away certaine lands: in the first place, whereas now the sea *Atlanticum* is, was sometime the continent for a mighty space of ground, as *Plato* saith. Likewise in our *Mediterranean* sea, all men may see at this day how much hath beene drowned vp, to wit, *Acarnania* by the inward gulf of *Ambracia*, *Achaia* within that of *Corinth*, *Europ* and *Asia* within *Propontis* and *Pontus*.ouer and besides, the sea hath broken through *Leucas*, *Antirrhium*, *Hellespont*, and the two *Bosphori*.

CHAP. XCI.

¶ *What lands haue swallowed vp themselves.*

AND now to passe ouer armes of the sea and lakes; the very earth hath deuoured and buried her selfe: to wit, that most high hill *Cybotus*, with the towne *Curites*; *Sipylus* in *Magnesia*; and in the same place before time the most noble city called *Tantalus*; the territories of *Galanis* and *Gamale* in *Phœnice*, together with the very cities. *Phogium* also, a passing high hill in *Ethiopia*, as if the very stronds and continent were not to be trusted, but they also must worke hurt and mischiefe.

CHAP.

Plinies Naturall History.

CHAP. XCII.

¶ *What Cities haue been drowned with the sea.*

THE sea *Pontus* hath ouerwhelmed *Pyrria* and *Antyssa* about *Mæotis*, *Elice* and *Bura* in the gulf of *Corinth*; whereof the marks and tokens are to be seene in the Deep. Out of the *Island* *Cea* more than 30 miles of ground was lost suddenly at once, with many men. In *Sicily* also the sea came in and bare away halfe the city *Thindaris*, and all that *Italy* nurfeth betwene it and *Sicily*. The like it did in *Æotia* and *Eleusina*.

CHAP. XCIII.

¶ *Of the strange wonders of the land.*

FOR let vs speake no more of Earthquakes, and what soeuer else of that kind, as of graues and sepulchres of cities buried, and extant to be seene; but discourse we rather of the wonders, than the mischiefs wrought by Nature in the earth. And surely the story of celestiall things was not more hard to be declared: the wealth is such of mettals and mines, in such variety, so rich, so fruitfull, rising still one vnder another for so many ages, notwithstanding daily there is so much wasted and consumed throughout the world, with fires, ruines, shipwrecks, wars, and fraudulent practises: yea and so much spent in ryot and superfluous vanities, that it is infinite: yet see how many sorts of jemes there be still, so painted and set out with colors? in precious stones what varieties of sundry colours, and how bespotted are they: and amongst them behold the brightnesse and white hue of some, excluding all else but onely light! The vertue and power of medicinable fountaines: the wonderfull burning so many hundred yeres together of fire issuing forth in so many places: the deadly dampes and exhalations in some places, either sent out of pits when they are funke, or else from the very native seat and position of the ground; present death in one place to the birds and foules of the aire only (as at *Soracte*, in a quarter neere the city:) in other, to all other liuing creatures saue only man: yea and sometimes to men also, as in the territories of *Sinuessa* and *Puteoli*. Which damp holes breathing out a deadly aire some call *Charoneæ Scrobes*, i. *Charons* ditches. Likewise in the *Hirpines* land, that of *Amsanctus*, a caue neere vnto the temple of *Nephtes*, wherinto as many as enter dy presently. After the like manner at *Hierapolis* in *Asia* there is another such, hurting all that come to it, except the priest of *Cybele*, the great mother of the gods. In other places there be also caues and holes of a prophetical power; by the exhalation of which men are intoxicate and as it were drunken, and so foretell things to come, as at *Delphi* that most renowned Oracle. In all which things what other reason can any mortall man make, than the diuine power of Nature, diffused and spread through all, which breaketh forth at times in sundry sorts.

CHAP. XCIV.

¶ *Of certaine Lands that alwaies quake.*

SOME parts of the earth there be that shake and tremble vnder mens feet as they go: namely in the territorie of the *Gabians* not far from *Rome*, there be almost two hundred acres of ground which tremble as horsemen ride ouer them. And the like is in the territorie of *Reate*.

CHAP. XCV.

¶ *Of Islands euer flowing and swimming.*

CERTAINES Isles are alwaies wauiing and neuer stand still, as in the countrey about *Cæcubum*, *Reate* aboue named, *Mutina*, and *Stratonia*. Also in the lake *Vadimonis*, and neer the waters *Cutylis*, there is a shadowie darke groue which is neuer seen in one place a day and night together. Moreouer in *Lydia*, the Isles *Calanuceæ* are not only driuen to & fro by winds, but also many be shoued and thrust with long poles which way a man will: a thing that saued many

E iiij

many a mans life in the war against *Mithridates*. There be other little ones also in the Riuer Nymphæus, called Saltuares or Dancers, because in any consort of Musicians singing they stir and moue at the stroke of the feet, keeping time and measure. In the great lake of Italy, *Tarquiniensis*, two Islands carry about with them groues and woods: one while they are in fashion three square, another while round, when they close one to the other by the drift of winds, but neuer foure square.

CHAP. XCVI.

In what lands it neuer raineth. Also many strange wonders and miracles of the earth, and other Elements heaped together.

Paphos hath in it a famous temple of Venice, vpon a certain floure and altar whereof it neuer raineth. Likewise in Nea a towne of Troas a man shall neuer see it raine about the Image of *Minerva*. In the same also the beasts killed in sacrifice, if they be left there neuer putrifie. Neere to Harpali a towne in Asia stands a rocke of stone of a strange and wonderfull nature, lay one finger to it and it will stir, but thrust at it with your whole body, it moueth not at all. Within the demy Island of the Tauri, and city Parasinum, there is a kinde of earth that healeth all wounds: but about Assos in Troas there growes a stone, wherewith bodies are consumed, and therefore is called *Sarcophagus*. Two hills there be neere the riuer Indus: the nature of the one is to hold fast all manner of iron, and of the other not to abide it: wherefore if a mans shooe sole be clouted with hob nailes, in the one of them a man cannot plucke away his foot, and in the other he can take no footing at all. Noted it is, that in Locri and Crotona was neuer pestilence knowne, nor any danger by earthquake. And in Lycia euer after an earthquake it hath been faire for forty daies. In the territorie of Arda if corne be sowed it neuer comes vp. At the altars *Murtia* in the Venetian field, likewise in Tusculanum and the wood Cyminia, there be certaine places, wherein whatsoeuer is pitched into the ground, can neuer be plucked vp againe. In the Crustumine countrey all the hay there growing is hurtfull in the same place: but being once without, it is good and wholesome.

CHAP. XCVII.

What is the reason of the reciprocal ebbe and flow of the seas, and where it is that they keepe no order, and are without reason.

OF the nature of waters much hath bin said: but the sea tide that it should flow and ebbe againe is most maruellous of all other: the maner thereof verily is diuers, but the cause is in the Sun and Moon. Between two risings of the Moone they flow twice, and twice go backe, and alwaies in the space of 24 houres. And first as he riseth aloft together with the world the tides swell, and anon again, as it goeth from the height of the Meridian line, and inclineth Westward, they flake: again, as she moueth from the West vnder our horizon, and approacheth to the point contrarie to the Meridian, they flow, and then they are receiued backe into the sea vntill she rise again: and neuer keepeth the tyde the same houre that it did the day before; for it waiteth and attendeth vpon the planet, which greedily draweth with it the seas, and euer riseth to day in some other place than it did yesterday. Howbeit the tides keepe iust the same time between, and hold alwaies six houres apiece: I meane not of every day and night, or place indifferently, but only the equinoctial. For in regard of houres the tides of the sea are vnequal: forasmuch as by day and night the tydes are more or lesse one time than another: in the equinoctial only they are euen and alike in all places. A very great argument this is, full of sight, to conuince that grosse and blockish conceit of them who are of opinion, that the planets being vnder the earth lose their power, and that their vertue beginneth when they are aboue only: for they shew their effects as well vnder as aboue the earth, as well as the earth, which worketh in all parts. And plaine it is, that the Moone performeth her operations as well vnder the earth, as when we see her visibly aloft: neither is her course any other beneath, than aboue our horizon. But yet the difference and alteration of the Moone is manifold, and first every seuen daies: for while she is new the tides be but small vntill the first quarter:

for

A for as she groweth bigger, they flow more, but in the full they swell and boile most of all. From that time they begin again to be more milde, and in the first daies of the wain to the seuenth, the tides are equal: and againe when she is diuided on the other side, and but halfe Moon, they increase greater. And in the Coniunction or the change, they are equal to the tides of the full. And evidently it appeareth, that when she is Northerly, and retired higher & farther from the earth, the tides are more gentle, than when she is gone Southerly; for then she worketh neerer hand, and putteth forth her full power. Euery eight yere also, & after the hundreth reuolution of the Moone, the seas returne to the beginning of their motions, and to the like increase and growth: by reason that the augmenteth all things by the yerely course of the Sun: forasmuch as in the two equinoctials they euer swell most, yet more in that of the Autumne, than the Spring: but nothing to speak of in Mid-winter, & lesse at Mid-summer. And yet these things fall not out iust in these very points and instants of the times which I haue named, but some few daies after: like as neither in the full nor in the change, but afterward: ne yet presently so soon as the heauen either sheweth vs the Moon in her rising, or hideth her from vs at her setting, or as shee declineth from us in the middle climat, but later almost by two equinoctial hours. Forasmuch as the effect of all influences and operations in the heauen reach not so soon vnto the earth, as the clesight pierceth vp to the heauen: as it appeareth by lightnings, thunders, & thunderbolts. Moreouer, all tides in the main Ocean, ouerspread, couer, and ouerflow much more within the land, than in other seas besides: either because the whole and vniuersall element is more courageous than in a part: or for that the open greatnesse and largenesse thereof, receiue more effectually the power of the Planet, working forcibly as it doth far and nere at liberty, than when the same is pent and restrained within those streights. Which is the cause that neither lakes nor little riuers ebbe and flow in like manner. *Pythias* of Massiles, writeth, That about Brittain the tide floweth in height 80 cubits. But the more inward and Mediterranean narrow seas are shut vp within the lands, as in an haue. Howbeit in some places a more spacious liberty there is that yeeldeth to the power and command of the Moon; for we haue many examples and experiments of them that in a calm sea without wind and faile, by a strange water onely, haue tided from Italy to Vtica in three daies. But these tides and quick motions of the sea are found to be about the shores, more than in the deep maine sea. For euen so in our bodies the extreme and vtmost parts haue a greater feeling of the beating of arteries, that is to say, the vitall spirits.

D Yet notwithstanding in many firtlis and armes of the sea, by reason of the vnlike risings of the planets in euery coast, the tides are diuers, and disagreeing in time, but not in reason and cause, as namely in the Syrtis. And yet some there be that haue a peculiar nature by themselves, as the Firth Taurominitanum, which ebberh and floweth oftner than twice: and that either in Eubrea, called likewise Euripus, which hath seuen tides to and fro in a day and a night. And the same tide three daies in a moneth standeth still, namely in the 7, 8, and 9 daies of the moons age. At Gades, the fountaine next vnto the chappell of *Hercules*, is inclosed about like a well; the which at sometimes riseth and falleth as the Ocean doth: at others againe it doth both, at contrary seasons. In the same place there is another spring that keepeth order and time with the motions of the Ocean. On the banke of Betis there is a towne, the wells whereof as the tide floweth, do ebbe, and as it ebberh, do flow: in the mid times betwene, they stirre not. Of the same qualitie there is one pit in the towne Hispalis; all the rest be as others are. And the sea Pontus euermore floweth and runneth out into Propontis, but the sea neuer retirith backe againe within Pontus.

CHAP. XCVIII.

Marnels of the Sea.

All seas are purged and scoured in the full Moone; and some besides at certaine times. About Messala and Nylas, there is voided vpon the shore certaine dregges and filthinesse like to beasts dung: whereupon arose the fable, That the Sunnes oxen were there kept in stall. Hereunto addeth *Aristotle* (for I would not omit willingly any thing that I know) that no living creature dieth but in the reflux and ebbe of the sea. This is obserued much in the Ocean of France, but found onely in man by experience, true.

BY which it is truly guessed and collected, that not in vaine the planet of the Moone is supposed to be a Spirit: for this is it that satisfieth the earth to her content: shee it is that in her approach and comming toward, filleth bodies full; and in her retire and going away, emptieth them again. And hereupon it is, that with her growth all shell-fish wax & encrease: and those creatures which haue no bloud, them most of all do feele her spirit. Also, the bloud in men doth increase or diminish with her light more or lesse: yea the leaues of trees and the grasse for fodder (as shall be said in conuenient place) do feele the influence of her, which euermore the same pierceth, and entreth effectually into all things.

CHAP. C.

¶ *Of the power of the Sun, and why the Sea is salt.*

THUS by the feruent heate of the Sun all moisture is dried vp: for wee haue been taught, that this Planet is Masculine, frying and sucking vp the humidity of all things. Thus the broad and spacious sea hath the taste of salt sodden into it: or else it is, because when the sweet and thin substance thereof is sucked out from it, which the fire power of the Sun most easily draweth vp, all the tarter and more grosse parts thereof remaine behinde: and hereupon it is, that the deep water toward the bottom is sweeter and lesse brackish than that about in the top. And surely, this is a better and truer reason of that vnpleasant smacke and taste that it hath, than that the sea should be a sweat issuing out of the earth continually: or, because ouermuch of the dry terrene element is mingled in it without any vapour: or else because the nature of the earth infecteth the waters, as it were, with some strong medicine. We finde among rare examples and experiments, that there happened a prodigious token to *Demis* tyrant of Sicily, when he was expelled and deposed from that mightie state of his, and this it was; the sea water within one day in the hauen grew to be fresh and sweet.

CHAP. CI.

¶ *In like manner of the Moones Nature*

ON the contrary, they say that the Moone is a planet Foeminine, tender & nightly, dissolueeth humors, draweth the same, but carieth them not away. And this appeareth evidently by this prooffe, that the carcases of wilde beasts slain, she putrifieth by her influence, if she shine vpon them. When men also are found asleepe, the dull nummednesse thereby gathered, she draweth vp into the head: she thaweth yce, and with a moistening breath proceeding from her, enlargeth and openeth all things. Thus you see how Natures turn is serued and supplied, and is alwaies sufficient; whiles some stars thicken and knit the elements, others againe resolue the same. But as the Sun is fed by the salt seas, so the Moone is nourished by the fresh riuer waters.

CHAP. CII.

¶ *Where the Sea is deepest.*

Fabianus saith, that the sea where is deepest, exceedeth not fifteen furlongs. Others againe do report, that in Pontus the sea is of an vnmeasurable depth, ouer against the Nation of the Coraxians, the place they call *Bathei Ponti*, whereof the bottome could neuer bee founded.

CHAP. CIII.

¶ *The wonders of Waters, Fountaines and Riuers.*

OF all wonders this passeth, that certain fresh waters hard by the sea, issue & spring forth as out of pipes: for the nature of the waters also ceaseth not from strange and miraculous properties. Fresh waters run aloft the sea, as being no doubt the lighter: and therefore

Afore the sea water (which naturally is heauier) vpholdeth and beareth vp whatsoeuer is brought in. Yea and amongst fresh waters, some there be that flote and glide ouer others. As for example, in the lake Fucinus, the riuer that runneth into it in Lariis, Addua, in Verbanus, Ticinus; in Benacus, Mincius, in Seuinus, Ollius, in Lemanus lake, the riuer Rhodanus. As for this riuer beyond the Alpes, and the former in Italy, for many a mile as they passe, carry forth their owne waters from thence where they abode as strangers, and none other; and the same no larger than they brought in with them. This is reported likewise of Orontes, a riuer in Syria, and of many others. Some riuers againe there be, which vpon an hatred to the sea, run euenvnder the bottom thereof, as Arethusa, a fountaine in Syracusa: wherein this is obserued, that whatsoeuer is cast into it, cometh vp againe at the riuer Alpheus, which running through Olimpia, falleth into the sea shore of Peloponnesus. There go vnder the ground, and shew about the ground againe, Lycus in Asia, Erasinus in Argolica, Tygris in Mesopotamia. And at Athens what things soeuer are drowned in the fountain of Esculapius, be cast vp againe in Phalericus. Also in the Attinate plaines, the riuer that is buried vnder the earth, twentie miles off appeareth againe. So doth Timavus in the territory of Aquileia, in Asphaltites (a lake in Iury which ingenders *Birtumen*) nothing will sinke nor can be drowned, no more than in Arethusa in the greater Armenia: and the same verily, notwithstanding it be full of Nitre, breedeth and feedeth fish. In the Salentines countrey, neere the towne Manduria, there is a lake brim full, lade out of it as much water as you will, it decreaseth not; ne yet augmenteth, poure in neuer so much to it. In a riuer of the Ciconians, and in the lake Velinus in the Picene territory, if wood be throwne in, it is couered ouer with a stony barke. Also in Surius, a riuer of Colchis, the like is to be seen: in so much, as ye shall haue very often the bark that ouergrowes it, as hard as any stone. Likewise in the riuer Silarus beyond Surrentum, not twigs onely that are dipped therein, but leaues also grow to be stones; and yet the water thereof otherwise is good and wholesome to be drunk. In the very passage and issue of Reatine meere, there growes a rocke of stone bigger and bigger by the dashing of the water. Moreouer in the red sea there be oliue trees and other shrubs, that grow vp green. There be also very many springs, which haue a wonderfull nature, for their boiling heat: yea, and that vpon the very mountains of the Alpes, and in the sea between Italy and Anaria: as in the Firth Bajanus, and the riuer Liris, and many others. For in diuers and sundry places ye may draw fresh water out of the sea, namely about the islands Chelidonia and Aradus: yea and in the Ocean about Gades. In the hot waters of the Padouans there grow greene herbes: in those of the Pisanes there breed frogs; and at Vetulonij in Hetruria, not far from the sea, fishes also are bread. In the territory Casinas there is a riuer called Scatebra, which is cold, and in Summer time more abounding and fuller of water than in winter: in it, as also in Stymphalis of Arcadia, there breed & come forth of it little water-mice, or small Limpins. In Dodone, the fountain of *Iupiter* being exceeding chill and cold, so as it quenchech and putteth out light torches dipped therein, yet if you hold the same neere vnto it when they are extinct and put out, it setteth them on fire againe. The same spring at noon-tide euermore giueth ouer to boile, and wants water, for which cause they call it *Anapaumenos*: anon it begins to rise vntill it be midnight, and then it hath great abundance: and from that time againe it fainty by little and little. In Illyricum there is a cold spring, ouer which, if ye spread any clothes, they catch a fire and burne. The fountaine of *Iupiter Hammon* in the day time is cold, all night it is seething hot. In the Troglodites countrey there is a fountaine of the Sunne, called the sweet Spring, about noon it is exceeding cold, anon by little and little it growes to be warm, but at midnight it passeth and is offensive for heate and bitterness. The head of the Po, at noon in Summer giueth ouer, as it were, and intermits to boile, and is then euer drie. In the Island Tenedus there is a spring, which after the Sommer Sunsteed euermore from the third houre of the night vnto the sixth, doth ouerflow, And in the isle Delos, the fountain Inopus, falleth and rises after the same sort that Nilus doth, and together with it. Ouer against the riuer Timavus, there is a little Island within the sea, hauing hot wells, which ebbe and flow as the tide of the sea doth, and iust therewith. In the territory of the Pitinates beyond Apenninus, the riuer Nouanus at every midsummertime swelles and runnes ouer the bankes, but in mid-winter is cleane dry. In the Faliscane countrey, the water of the riuer Clitumnus makes the oxen and kine white that drinke of it. And in Beotia, the riuer Melas maketh sheepe blacke: Cephysus running out of the same lake, causeth them to be white: and Penius again giues them a black colour: but Xanthus neere

vnto Ilium, coloureth them reddish; and hereupon the riuer tooke that name. In the land of Pontus there is a riuer that watereth the plaines of Astace, vpon which those mares that feed, giue blacke milke for the food and sustenance of that nation. In the Reatine territorie there is a fontaine called Nemina: which, according to the springing and issuing forth out of this or that place, signifyeth the change in the price of corne and victuals. In the hauen of Brindis there is a Well, that yeeldeth vnto sailers and sea-fering-men, water, which will neuer corrupt. The water of Linceſis, called Acidula [i. Soure] maketh men drunke on lesse than wine. Semblably, in Paphlagonia, and in the territory of Cales. Also in the Isle Andros there is a fontaine neere the temple of Father *Bacchus*, which vpon the Nones of Ianuarie, alwaies runneth with water that tasteth like wine, as *Mulianus* verily beleueeth, who was a man that had bene thrice Conſull: The name of the spring is Dios Tecnosia. Neere H vnto Nonacris in Arcadia, there is the riuer Styx, differing from the other Styx neither in smell nor colour: drinke of it once, and it is present death. Also in Berofus (an hill of the Tauri) there be three fountains, the water whereof whosoever drinketh, is sure to die of it, remedileſſe, and yet without paine. In the Countrey of Spaine called Carrinenſis, two Springs there bee that runne neere together, the one rejecteth, the other swalloweth vp all things. In the ſame countrey there is another water, which sheweth all fishes within it of a golden colour, but if they be once out of that water, they be like to other fishes. In the Canenſian territory, neere to the lake Larius, there is a large and broad Well, which euery houre continually, ſwelleth and faileth downe againe. In the Island Sydonia before Lesbos, an hot fontaine there is that runneth onely in the Spring. The lake Sinnaus in Asia, is infected with the wormewood growing about it, and there of it tasteth. At Colophon in the vault or caue of *Apollo Clarius*, there is a gutter or trench standing full of water: they that drinke of it, shall prophesie and foretell strange things like Oracles, but they liue the shorter time for it. Riuers running backward, euen our age hath ſeen, in the later yeres of Prince *Nero*, as we haue related in the acts of his life. Now, that all Springs are colder in Summer than Winter, who knoweth not? as also these wonderous workes of Nature, That brasse and lead in the masse or lumpe sinke downe and are drowned, but if they be driuen out into thin plates, they ſtore and swim aloft: and let the weight be all one, yet some things ſettle to the bottome, others againe glide about. Moreouer, that heauie burdens and lodes be stirred and remoued with more ease in water. Likewise, that the stone *Thyreus*, be it neuer ſo big, doth swim whole and intire: breake it once into pieces, and it sinketh. As also, that bodies newly dead, fall downe to the bottome of the waver, but if they be ſwollen once, they riſe vp againe.ouer and beſides, that empty veſſels are not ſo eaſily drawne forth of the water, as thoſe that be full: that raine water for ſalt pits is better and more profitable than all other: and that ſalt cannot be made, vnleſſe freſh water be mingled withall: that ſea-water is longer before it congeale, but ſooner made hot and ſet a ſee-thing. That in Winter the ſea is hotter, and in Autumne more brackiſh and ſalt. And that all ſeas are made calme and ſtill with oile: and therefore the Diuers vnder the water doe ſpirt and ſprinkle it abroad with their mouthes becauſe it dulceth and allaieth the vnpleaſant nature thereof, and carrieth a light with it. That no ſnowes fall where the ſea is deep. And, whereas all water runneth downward by nature, yet Springs leape vp; euen at the very foot of *Atna*, which burneth of a light fire ſo farre forth, as that for fiftie, yea, and an hundred miles, the waſhing round balls and flakes of fire caſt out ſand and aſhes.

CHAP. CIIII.

¶ The mannailes of fire and water iointly together, and of Maltha.

Now let vs relate ſome ſtrange wonders of fire alſo, which is the fourth element of Nature. But firſt, out of waters. In a citie of Comagene, named Samofatis, there is a pond, yeelding forth a kinde of ſlimie mud (called Maltha) which will burne cleare. When it meeteth with any thing ſolide and hard, it ſtickeneth to it like glew: alſo, if it be touched, it followeth them that flee from it. By this meanes the townſmen defended their walls, when *Lucullus* gaue the aſſault, and his ſouldiers fried and burned in their owne armours. Caſt water vpon it, and yet it will burne. Experience hath taught, That earth onely will quench it.

CHAP.

CHAP. CV. ¶ Of Naphtha.

Of the like nature is Naphtha: for ſo is it called about Babylonia, and in the Auſtacenes countrey in Parthia, and it runneth in manner of liquid Bitumen. Great affinitye there is betwene the fire and it; for fire is ready to leap vnto it immediatly, if it be any thing neere it. Thus (they ſay) *Media* burnt her husbands concubine, by reaſon that her giuſt and anointed therewith, was caught by the fire, after ſhe approached neere to the altars, with purpoſe to ſacrifice.

CHAP. CVI. ¶ Of places continually burning.

But amongſt the wonderfull mountaines, the hill *Atna* burneth alwaies in the nights: and ſo long continuance of time yeeldeth ſufficient matter to maintaine thoſe fires: in winter it is full of ſnow, and couereth the aſhes caſt vp, with froſts. Neither in it alone doth Nature tyraniſe and ſhew her cruelty, threatning as ſhe doth a general conſuming of the whole earth by fire. For in Phoselis the hill *Chimara* likewiſe burneth, and that with a continually fire night and day. *Cteſas* of Gnidos writeth, that the fire therof is inflamed and ſet a burning with water, but quenched with earth. In the ſame Lycia the mountaines *Hephæſtij*, being once touched and kindled with a flaming torch, do ſo burne out, that the very ſtones of the riuers, yea, and the ſand in waters, are on fire withall; and the ſame fire is maintained with raine. They report alſo, that if a man make a furrow with a ſtaffe that is ſet on fire by them, there follow gutters as it were of fire. In the Baſtrians countrey, the top of the hill *Cophantus* burneth euery night. Amongſt the Medians alſo, and the Caſſian nation, the ſame mountaines burneth: but principally in the very confines of Perſis. At Suſis verily, in a place called the white tower, out of fifteene chimnies or tunnels the fire iſſueth, and the greateſt of them, euen in the day time carrieth fire. There is a plaine about Babylonia, in manner of a fiſh poole, which for the quantity of an acre of ground burneth likewiſe. In like fort neere the mountaine *Hesperius* in *Aethyopia*, the fields in the night time do glitter and ſhine like ſtars. The like is to be ſcene in the territorie of the Megapolitanes, although the field there within-forth be pleaſant, and not burning the boughes and leaues of the thicke groue about it. And neere vnto a warme Spring, the hollow burning furnace called *Crater Nymphæ* alwaies portendeth ſome fearefull miſfortunes to the Apollonians, the neighbours thereby, as *Theopompus* hath reported. It increaſeth with ſhowers of raine, and caſteth out Bitumen to be compared with that fontaine or water of Styx that is not to be taſted, otherwiſe weaker than all Bitumen beſides. But who would maruell at theſe things? in the mids of the ſea, *Hiera* one of the *Ætolian* Iſlands neere to Italy burned together with the ſea for certaine daies together, during the time of the allies war, vntill a ſolemne embassage of the Senat made expiation therefore. But that which burneth with the greateſt fire of all other, is a certaine hill of the *Aethyopians* *Thoeet Ochema*, and ſendeth out moſt parching flames in the hotteſt Sun-ſhine daies. Lo in how many places with ſundry fires Nature burneth the earth.

CHAP. CVII.

¶ Wonders of fires by themſelves.

Moreover, ſince the Nature of this onely element of fire is to be ſo fruitfull, to breed it ſelfe, & to grow infinitely of the leaſt ſparks, what may be thought will be the end of ſo many funerall fires of the earth? what a nature is that which feedeth the moſt greedy voracitie in the whole world without loſſe of it ſelfe? Put thereto the infinit number of ſtars, the mighty great Sun; moreover, the fires in mens bodies, & thoſe that are inbred in ſome ſtones; the attrition alſo of certain woods one againſt another; yea, and thoſe within clouds, the verie original of lightnings. Surely, it exceedeth all miracles, that any one day ſhould paſſe, & not all the world be ſet on a light burning fire, ſince that the hollow fry glaſſes aſo ſet oppoſit againſt the Sun beams, ſooner ſet things a burning than any other fire. What ſhould I ſpeake of innumerable

merable others, which be indeed little, but yet naturally issuing out in great abundance. In the Promontorie Nymphæum there commeth forth a flaming fire out of a rock, which is set a burning with rain. The like is to be seene also at the waters called Scantiæ. But this verily is but feeble when it passeth and remoueth, neither indureth it long in any other matter. An ash there is growing ouer his fiery fountain, and couering it, which notwithstanding is alwaies green. In the territorie of Murina there riseth vp fire also, vpon certaine set holy daies vnto *Pulcan*. It is found written, That if a cole of fire fall down vpon the arable fields vnder Aricia, the very soile presently is on fire. In the Sabines territorie, as also in the Sidicines, stones if they be anointed or greased, will be set on a light fire. In a towne of the Salantines called Egnatia, if fire be laid vpon a certaine hallowed stone there, it will immediatly flame out. Vpon the alter of *Inno Lacinia* standing as it doth in the open aire, the ashes lie vnmoueable and stir not, blow what stormy winds that will on euery side. Ouer and besides, there be fires seene suddenly to arise, both in waters and also about the bodies of men. *Valerius Antias* reporteth, That the lake Thra-symenus once burned all ouer: also that *Ser. Tullius* in his childehood, as he lay asleepe, had a light fire shone out of his head: likewise, as *L. Martius* made an oration in open audience to the army, after the two *Scipios* were slain in Spain, and exhorted his soldiers to reuenge their death, his head was on a flaming fire in the same sort. More of this argument, and in better order, will we write soone hereafter. For now we exhibit and shew the maruells of all things hudled and intermingled together. But in the mean while, my mind being passed beyond the interpretation of Nature, hasteneth to leade as it were by the hand the minds also of the readers, through-out the whole world.

CHAP. CVIII.

¶ The measure of the whole earth in length and breadth.

THIS our part of the earth whereof I speak, floting as it were within the Ocean (as hath bin said) lieth out in length most from the East to the West, that is to say from India to *Hercules* pillars consecrated at Gades: and as mine Author *Artemidorus* thinketh, it containeth 85 hundred, & 78 miles. But according to *Isidorus*, 98 hundred, and 18. *M. Artemidorus* addeth moreouer, from Gades within the circuit of the sacred Promontorie, to the Cape Artabrum, where the front and head of Spain beareth out farthest in length 891 miles. This measure runneth two waies. From the riuer Ganges and the mouth thereof, whereas he dischargeth himself into the East Ocean, through India and Parthyene vnto Myriandrum a city of Syria, scituate vpon the gulfe or Firth of Issa, 52 hundred & 15 miles. From thence taking the next voyage to the Island Cyprus, to Patara in Lycia, Rhodes and Asypataea (Islands lying in the Carpathian sea) to Tænarus in Laconia, Lilybæum in Sicilie, Calaris in Sardinia, 34 hundred & 50 miles. Then to Gades 14 hundred and 50 miles. Which measures being put al together, make in the whole from the said sea, 85 hundred 78 miles. The other way, which is more certain, lieth most open and plain by land, to wit, from Ganges to the riuer Euphrates 50 hundred miles and 21. From thence to Mazaca in Cappadocia 244 miles, & so forward through Phrygia and Caria, to Ephesus, 400 miles, 98. From Ephesus through the Aegean sea to Delos 200 miles. Then to Isthmus 212 miles. From thence partly by land, and partly by the Laconian sea and the gulfe of Corinth, to Patrae in Peloponnesus 202 miles and an halfe: so to Leucas 86 miles & a halfe, and as much to Corcyra. Then to Acrocerania 132 miles and a halfe: to Brundisium 86 miles and a halfe: so to Rome 3 hundred miles and 60. Then to the Alpes as far as the village Cincomagus 518 miles. Through France to the Pyrenean hils, vnto Illiberis 556 miles, to the Ocean and the sea coast of Spaine 332 miles. Then the cut ouer to Gades seven miles and a halfe. Which measure by *Artemidorus* his account, maketh in all 86 hundred 85 miles. Now the bredth of the earth, from the Meridian or South-point, to the North, is collected to be lesse almost by the one halfe, namely, 54 hundred and 62 miles. Whereby it appeareth plainly, how much of the one side beate of fire, and on the other side frozen water hath stolne away. For I am not of minde that the earth goeth no farther than so, for then it should not haue the forme of a globe; but that the places on either side be vnhabitable, and therefore not found out and discovered. This measure runneth from the shore of the Æthiopian Ocean, which now is habited, vnto Meroe, 550 miles. From thence to Alexandria 1200 and 40 miles. So, to Rhodes 583 miles.

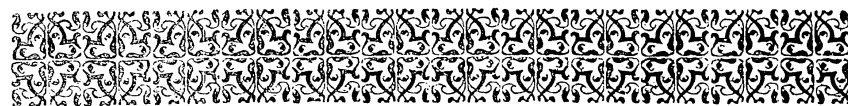
A miles; to Gnidus, 84 miles and a halfe; to Cos, 25 miles; to Samus, 100 miles; to Chius, 84 miles; to Mitylene, 65 miles; to Tenedos, 28 miles; to the cape Sigæum, 12 miles and a halfe; to the mouth of Pontus, 312 miles and a halfe; to Carambis the promontorie, 350 miles; to the mouth of Mæotis, 312 miles and a halfe; to the mouth of Tanais, 265 miles: which voiage may be cut shorter (with the vantage of sailing directly) by 89 miles. From the mouth of Tanais, the most curious Authors haue set downe no measure. *Artemidorus* was of opinion, that all beyond was vnfound and not discovered; confessing, that about Tanais the Sarmatian Nations do inhabit, who lie to the North pole. *Isidorus* hath added hereto twelve hundred miles, as far as to Thule: which is a iudgement of his grounded vpon bare guesse and coniecture. I take it, that the borders of the Sarmatians are knowne to haue no lesse space of ground than this last mentioned commeth vnto. And otherwise, how much must it be, that would containe such an innumerable company of people shifting their seats euer and anon, as they doe. Whereby I guesse, that the ouer-measure of the clime inhabitable is much greater. For I know certainly, that Germany hath discovered mightie great Islands not long since. And thus much of the length and breadth of the earth, which I thought worth the writing. Now the vniuersall compass and circuit thereof, *Eratostrhenes* (a great Clerke verily for all kinde of literature, & in this knowledge aboue all others doubtlesse most cunning, and whom I see of all men approoued and allowed) hath set downe to be 252000 stadia. Which measure, by the Romanes account and reckoning, amounteth to 300 hundred and 15 hundred miles. A wonderous bold attempt of his! but yet so exquisitely calculated and contriued by him, that a shame it were not to beleue him. *Hipparchus*, a wonderful man both for conuincing him, and all his other diligence besides, addeth moreouer little lesse than 25000 stadia.

CHAP. CIX.

¶ The Harmonicall measure, and Circumference of the World.

Dionysidorus in another kind would be beleued: (for I will not beguile you of the greatest example of Grecian vanitie.) This man was a Melian, famous for his skill in Geometrie: he dyed very aged in his owne countrey: his neere kinf-women (who by right were his heires in remainder) solemnized his funerals, & accompanied him to his graue. These women (as they came some few daies after to his sepulchre for to performe some solemne obsequies thereto belonging) by report, found in his monument an Epistle of this *Dionysidorus*, written in his owne name, To them aboue, that is to say, To the liuing: and to this effect, namely, That he had made a step from his sepulchre to the bottome and centre of the earth, and that it was thither 42000 stadia. Neither wanted there Geometricians, who made this interpretation, that he signified that this Epistle was sent from the middle centre of the earth, to which place downward from the vppermost aloft, the way was longest; and the same was iust halfe the diametre of the round globe: whereupon followed this computation, That they pronounced the circuit to be 255000 stadia. Now the Harmonicall proportion, which forceth this vniuersalitie and nature of the World to agree vnto it selfe, addeth vnto this measure 7000 stadia, and so maketh the earth to be the 96000 part of the whole world.





THE THIRD BOOKE OF THE HISTORIE OF NATVRE

WRITTEN BY C. PLINIUS
SECVNDVS.

The Proeme, or Preface.

Hitherto haue we written of the position and wonders of the Earth, Waters, and Starres: also we haue treated in generall termes, of the proportion and measure of the whole world. Now it followeth, to discourse of the parts thereof: albeit this also be iudged an infinite peece of worke, nor lightly can be handled without some reprehension: and yet in no kinde of enterprise pardon is more due; since it is no maruell at all, if he who is borne a mortall man, knoweth not all things belonging to man. And therefore I will not follow one Author more than another, but euery one as I shall thinke him most true in the description of each part. Forasmuch as this hath been a thing common in manner to them all, namely, to learn or describe the situations of those places most exactly, where their felues were either borne, or which they had discovered and scene: and therefore neither will I blame nor reprove any man. The bare names of places shall be simply set downe in this my Geographie, and that with as great breuitie as I can: the excellency, as also the causes and occasions thereof, shall be deferred to their severall and particular treatises: for now the question is as touching the whole earth in generalitie, which mine intent is to represent vnto your eyes: and therefore I would haue things thus to be taken, as if the names of countries there put downe naked, and void of renoune and fame, and such onely as they were in the beginning, before any acts were done; and as if they had indeed an indument of names, but respectiue onely to the World and vniuersall Nature of all.

Now the whole globe of the earth is diuided into three parts, Europe, Asia, and Africa. The beginning we take from the West and the Firth of Gades, euen whereas the Atlantick Ocean breaking in, is fired into the Inland and Mediterranean seas. Atake your entrance there, I meane at the Streights of Gibraltar, and then Africa is on the right hand, Europe on the left, and Asia before you iust betweene. The bounds confining these, are the riuer Tanais and Nilus. The mouth of the Ocean at Gades (whereof I spake before) lyeth out in length 15 miles, and stretcheth forth in breadth but sixe, from a village in Spaine called Mellaria, to the promontorie of Africke, called the VWhite, as Turannius Gracula born thereby, doth write. T. Liuius, and Nepos Cornelius haue reported, that the breadth thereof where it is narrowest, is seven miles ouer, but ten miles where it is broadest. From so small a mouth (a wonder to consider) spreadeth the sea so huge and so vast as we see; and withall, so exceeding deepe, as the maruell is no lesse in that regard. For why? in the verie mouth thereof, are to be seen many barres and shallow shelles of white sands (so ebbe is the water) to the great terror of shippes and sailers passing that way. And therefore many haue called these Streights of Gibraltar, The emrie of the Mediterranean Sea. Of both sides of this gullet, were vnto it, are two mountaines set as frontiers and rampiers to keepe all in: namely, Abila for Africke, Calpe for Europe, the vtmost end of Hercules Labours. For which cause, the inhabitants of those parts call them the two pillars of that God, and doe verily beleue, that by certaine draines and ditches digged vntill the Continent, the maine Ocean before excluded, made way and was let in, to make the Mediterranean sea, where before was firme land: and so by that meanes the very face of the whole earth is cleane altered.

CHAP.

CHAP. I.

Of Europe.



And first, as touching Europe, the nource of that people which is the conqueror of all nations, and besides, of all lands by many degrees most beautifull, which may for right good cause, haue made not the third portion of the earth, but the one halfe (diuiding the whole globe of the earth into two parts:) to wit, from the riuer Tanais vnto the Streights of Gades. The Ocean then, at this space abovesaid, entreth into the Atlantick sea, and with a greedie current drowneth those

Blands which dread his comming like a tyrant; but where he meeteth with any that are like to resist, those he passeth iust by, and with his winding turns and reaches he eateth and holloweth the shore continually to gaine ground, making many noukes and creekes euery where: but in Europe most of all, wherein foure especiall great gulfes are to be scene.

Of which, the first, from Calpe the vtmost promontorie (as is aboue said) of Spain, windeth and turneth with an exceeding great compasse, to Locri, and as far as the promontorie Bruttium. Within it lieth the first land of all others, Spaine; that part I meane, which in regard of vs at Rome, is the farther off, and is named also Boetia. And anon from the Firth Virgitanus, the hither part, otherwise called Tarraconensis, as far as to the hills Pyrenæi. That farther part of larger Spaine is diuided into two prouinces in the length thereof: for on the North side of Boetia, lyeth Lusitania afront, diuided from it by the riuer Ana.

This riuer beginneth in the territorie Laminitanus of the hither Spain, one while spreading out it selfe into broad pooles or meeres, otherwhiles gathering into narrow brooks: or altogether hidden vnder the ground, and taking pleasure to rise vp oftentimes in many places, falleth into the Spanish Atlantick Ocean. But the part named Tarraconensis, lying fast vpon Pyrenæus, & shooting along all the side thereof, and withal, stretching out it selfe ouerthwart & crosse from the Iberian sea to the Gauls Ocean, is separated from Boetia & Lusitania, by the mountaine Salarius, and the cliffes of the Oretanes, Carpetanes, and Asturians.

Boetia, so called of the riuer Boëtis, that cutteth in the mids, out-goeth all other prouinces for rich furniture, and a certaine plentifull trimnesse and peculiar beaurtie by it selfe. There are held foure solemne Iudiciall great assizes and Parliaments, according to foure Counties or shires; to wit, the Gaditane, Cordubian, Astigitane, and Hispalensis. Townes in it are all, in number 175; whereof there are colonies eight; free Borowghes, eight; townes indued with the antient franchises of Latium 29; with freedome six; Confederate, foure; Tributarie paying custome, 120. Of which, those that be worth the naming, and are more currant in the Latine tongue, be these vnderwritten: to wit, on the riuer Ana side and the Ocean coast, the citie Ossonoba, surnamed also Lusturia. There run between, Luxia and Vrium, two riuers. The hills Arinani, the riuer Boëtis, the shore Corense with a winding creek, ouer against which, lyeth Gades, to be spoken of among the Ilands. The cape or head of Iuno; the haven Besippo. Townes; Belon, and Mellaria. The Streights or Firth out of the Atlantick sea. Carteia, called Tertessos by the Greekes; and the mountaine Calpe. Then, within the firm land, the towne Barbesula, with the riuer. Item, the towne Salbula, Sucl-Malacha vpon the riuer of our Confederates. Next to these, Menoba with a riuer: Sexi-firmum, surnamed Iulium: Sclaubina, Abdera, and Murgis the frontier towne of Boetia. All that whole coast, M. Agrippa thought to haue had their beginning and descent from the Carthaginians. From Ana, there lyeth against the Atlantick Ocean, the region of the Bastuli and the Turduli.

M. Varro saith, that there entered into all parts of Spain, the Herians, Persians, Phænicians, Celtes, and Carthaginians or Africans: for *Lusus*, the companion of Father *Liber* or *Liba* (which signifieth the frantick furie of those that raged with him) gaue the name to Lusitania; and *Pan* was the gouernour of it all. But those things which are reported of *Hercules* and *Pyrene*, or of *Saturne*, I thinke to be as vaine and fabulous tales as any other. As for Boëtis, in the Tarraconenian prouince, rising, not as some haue said, at the towne Mentesa, but in the chafe or Forrest Tugrensis, which the riuer Tader watereth, as it doth the Carthaginian pale also at Ilorcama; shunneth the funerall fire and sepulchre of *Scipio*: and turning into the West, maketh towards the

F 2

the

the Atlantick Ocean, adopting the prouince and giuing it his owne name, is at first but small, G howbeit receiue many other riuers into it, from which it taketh away both their name and their waters. And first being entred from Ossigitania into Bœtica, running gently with a pleasant channel, hath many townes both on the left hand & the right, seated vpon it. The most famous and populous between it & the sea coast in the Mediterranean part thereof, are Segeda, furnamed Augurina: Iulia, which is also called Findentia: Virgao, otherwise Alba, Ebura, otherwise Cereolis: Illiberi, which is also Liberini: Ilipua, named likewise Laus, Artigi or Iulienfes: Vescei the same that Faventia: Singilia, Hegua, Arialdunū, Agla the lesse, Bæbro, Castra Vinaria, Epifibrum, Hipponoua, Illurco, Osca, Escua, Succubo, Nuditatum, Tucci the old, all which belong to Bastitania, lying toward the sea. But within the countie or iurisdiction of Corduba, about the very riuer standeth the towne Offigi, which is furnamed Laconicum: Illiturgi called I also Forum Iulium. Ipasturgi the same that Triumphale, Siria: & 14 miles within the country Obulco, which is named Pontificense. And anon (you shall see) Ripepora, a town of the confederats, Sacili, Martialum, Onoba. And on the right hand Corduba, furnamed Colonia Patricia: and then beginneth Bœtis to be nauigable, & not before. As you go lower, you shall find townes Carbullo, Decuma, the riuer Singulis, falling into the same side of Bœtis. The townes of the country Hispalensis be these, Celtica, Axatiara, Arruci, Menoba, Ilipa, furnamed Italica. And on the left hand, Hispalis a colony, furnamed likewise Romulensis. But right forward opposit to it, the town Offet, which hath a name besides, Iulia Constantia: Vergentum, which also is the same that Iulij Genitor, Hippo Caurasium, the riuer Menoba, which also entreth into Bœtis on the right side. But within the washes & downs of Bœtis there is the town Nebrissa furnamed Veneria & Colobona: also colonies, viz. Asta, which is called Regia: & in the mid-land part, Asido, which is the same that Cæsariana. The riuer Singulus breaking into Bœtis in that order as I haue said, runneth hard by the Colony Astigitania, furnamed also Augusta Firma, & so forward it is nauigable. The rest of the Colonies belonging to this Countie are free, & enjoy immunitie of tribute, namely, Tucci, which is furnamed Augusta Gemella: Itucci, the same that Virtus Iulia, Atubi all one with Claretas Iulia [i. excellencie of Iulius.] Vrso, which is Genua Vrbanorum: & among these, Munda, which together with Pompeius son, was taken. Free townes, Astigi the old, & Ostippo: tributarie, Callet, Calucula, Castra Gemina, Ilipula the lesse Merucra, Sacrana, Obulcula, Oningis. As a man commeth from the coast, neere to the riuer Menoba, which also will beare a ship there dwel not far off the Alontigicili, & Alostigi. But all that region which without the forenamed, reacheth from Bœtis to the riuer Ana, is called Beturia: diuided into two parts, & as many sorts of people: to wit, the Celtici, who meet with Lusitania, and are within the diuision or country Hispalensis: and the Turduli, who inhabit fast vpon Lusitania and Tarraconensis: and they owe seruice to the Countie court of Corduba: as for the Celtici, manifest it is, that they came from the Celtiberians out of Lusitania, as appeareth by their religion, tongue, & names of townes, which in Bætica are distinguished by their additions or surnames, to wit, Seria, which is called Fama Iulia: Vcultuniacum, which now is Curiga: Laconimurgi, Constantia Iulia, Terresibus is now Fortunales, & Callensibus, Emanici. Besides all these, in Celtica Acinippo, Arunda, Arunci, Turobrica, Lastigi, Alpessa, Sæpona, Serippo. The other Beturia, which we said contained the Turduli, & belonged to the countie of Corduba, hath townes of no base account. Arsa, Mellaria and Mirobrica: and regions or quarters Ofrutigi, and Sisapone. Within the Countie of Gades there is of Romane citizens a town called Regina: of Latines there are Læpia, Vlia, Carisa furnamed Aurelia, Vrgia, which is likewise named Castrum Iulium: also, Cæsaris Salutarientis. But tributaries there be these, Besaro, Besippo, Berbesula, Lacippo, Besippo, Callet, Cappagum, Oleastro, Itucci, Prana, Lacibi, Saguntia, Andorissippo. The whole length of it, M. Agrippa hath set down 463 miles, & the breadth 257. But for that the bounds reached forward as far as to Carthage, which cause breedeth oftentimes errors in the taking of the measures, whiles in one place the limits of the prouinces were changed, and in another the paces in iourning were either more or lesse: also, considering the seas in so long continuance of time haue inroched here vpon the land, and the banks again gotten there of the sea, and beare farther in; also, for that the reaches of the riuers haue either turned crooked or gone streight & direct: ouer and besides, for that some haue begun to take their measure from this place, others from that, and gon diuers waies: it is by these means come to passe, that no twain accord together in one song, as touching their measure & Geographic.

CHAP. II.

¶ The length and breadth of Bætica.

THE length of Bœtica at this day from the bound of the town Castulo vnto Gades, is 475 miles: and from Murgi the maritime coast or lands end, more by 22 miles. The breadth from the edge or border of Carteia, is 224 miles. And verily, who would beleue, that Agrippa, a man so diligent, and in this worke principally, so curious, did erre, when he purposed to set out a map of the whole world openly to be scene of the whole city, and namely, when Augustus Cæsar of happie memorie, ioined with him? For he it was that finished the Porch or gallerie begun by Agrippa's sister, according to his will, appointment, and direction, which contained the

CHAP. III.

¶ The hither or higher Spaine.

THE old forme of the hither Spaine is somewhat changed, like as of many other prouinces: considering that Pompey the great in his triumphant trophies which he erected in Pyrenæus, restifieth, That 846 townes between the Alps and the marches of the farther or lower Spain, were subdued by him and brought to obedience. Now, is the whole prouince diuided into 7 counties, the Carthaginian, the Tarraconian, Cæsar Augustani, Cluniensis, Asturia, Lucensis, & Braconum. There are besides Islands, setting aside which, without once naming them, and excepting the cities that are annexed to others, the bare prouince containeth 294 townes. In which there be 12 colonies, townes of Roman citizens thirteen, of old Latines seuenteen, of allies within the league, one, tributarie, 136. The first in the very frontiers thereof, be the Bastulians: behind them in such order as shall be said, namely, those Inlanders that inhabit within-forth, the Mentefanes, Oretanes, and the Carpetanes vpon the riuer Tagus. Neere to them, the Vaccæans, Vætones, Celtiberians, and Arrebaci. The townes next to the marches, Vrci, and Barea laid to Bœtica: the countie Mauritania, then Deitania: after that Contestania, and new Carthage a colonie. From the promontorie whereof called Saturnes cape, the cut ouer the sea to Cæsaria a citie in Mauritania, is of 187 miles: In the residue of that coast is the riuer Tader: the free colonie Illici, of which, a firth or arme of the sea tooke the name Illicitanus. To it owe seruice and are annexed the Icostanes. Soon after, Lucentum a towne of the Latines, Dranium a tributarie, the riuer Suero, which was sometime the frontier towne of Contestania. The region Edetania, which retrieth inward to the Celtiberians, hauing a goodly pleasant poole bordering along the front of it, Valentia, a colonie lying three miles from the sea. The riuer Turium: and iust as far from the sea, Saguntum, a towne of Roman citizens, renowned for their fidelitie. The riuer Idubeda, and the region of the Illegæones. The riuer Hebre, yeelding such riches of trafficke and commerce, by reason that it is nauigable: which beginneth in the Cantabrians countrey, not far from the towne Inliobrica, and holdeth on his course 430 miles: and for 260 of them, euen from the towne Varia, carrieth vessels of merchandise: in regard of which riuer, the Greekes named all Spaine Iberia: the region Cossertania, the riuer Subi, the colonie Tarraco, built by the Scipios, like as Carthage by the Africans. The countie of the Illegætes, the towne Subur, the riuer Rubricatum, and from thence the Lacetanes and Indigætes. After them in this order following: within-forth at the foot of Pyrenæus, the Aufetanes, Itanes, & Lacetanes: and along Pyrenæus the Cerretanes, and then the Vascones. In the edge or marches thereof, the colony Barcino, furnamed Fauentia. Towns of Roman citizens, Bætulio, Illuro, the riuer Lanum, Blandæ: the riuer Alba, Emporia: two there be of these, to wit, of the old inhabitants, and of the Greekes, who were the off spring descended from the Phocæans. The riuer Tichus. From whence to Pyrenæa Venus, on the other side of the promontorie, are fortie miles. Now besides the forenamed, shall be related the principall places of marke as they lie in euery countie. At Tarracon there plead in court foure and fortie States. The most famous and of greatest name among them, be of Roman citizens the Dertufanes, and Bisgargiranes: of Latines, the Aufetanes and Cerretanes furnamed Iulianes: they also who are named Augustanes, the Sedctanes, Gerundenfes, Gessarians, Teasians, the same that Iulienfes. Of Tributaries,

aries, the Aquicaldenses, Onenses, and Bætulonenses. Cæsar Augusta, a free colony, on which the river Iberus floweth: where the towne before was called Salduba: these are of the region Sedetania, and receiue 52 States: and among these, of Roman citizens the Bellitanes and Celsenses: and out of the Colonie, the Calaguritans surnamed also Nascici. The Iberdians of the Sardaons Nation, neere vnto whom runneth the river Sisoris. The Oficians of the region Vescetania, and the Turiasonenses. Of old Latins, the Cascantenses, Ergancenses, Gracchurians, Leonices, Offigerdenses. Of confederats within the league, the Tarragenenses. Tributaries besides, the Arcobricenses, Andologenses, Arocelitans, Bursalonenses, Calaguritans surnamed Fibularenenses, Complutenenses, Cincenses, Gortonenenses, Dammanitanenses, Larenenses, Iturisenenses, Ispalenses, Ilumberitanenses, Lacetanes, Vibienenses, Pompelonenses and Segienenses. There resort to Carthage for law 62 severall States, besides the Islanders. Out of the Colonie Accitana, the Gemellenenses, also Libisofona surnamed Foroaugustana: which two are indue with the franchises of Italy: out of the Colonie Salarienses, the Oppidans of old Latium, Castulonenses, whom Cæsar calleth *Vanales*. The Setabitanenses, who are also Augustanes, and the Verrienses. But of the Tributaries, of greatest name be the Babanenses, the Bascianenses, the Confaburenenses, Dianenses, Egelestanes, Ilorcitan, Laminitan, Mentefami, the same that Oritani, and Mentelani who otherwise are Bastuli: Oretanes who also are called Germani, the chiefe of the Celtiberians, the Segobrigenses, and the Toletanes of Carpetania, dwelling vpon the river Tagus. Next to them the Viacienenses and Virgilienses. To the assises or law-court Clunienenses, The Varduli bring 14 nations; of which I list to name none but the Albanenses: but the Turmodigi foure, among whom are the Segisamonenses, Sagisameiulienenses. To the same assises, the Carietes & the Vennenses do go out of five cities, of which the Velienenses are. Thither repaire the Pelendones, with 4 states of the Celtiberians, of whom the Numantins were famous: like as in the 18 cities of the Vacceanenses, the Intercatienenses, Pallantini, Lacobricenses, & Caucesenses: for in the foure states of the Cantabrici, only Iuliobrica is named: in the 10 states of the Autrigones, Tritium, & Vironefca. To the Areuaci the river Areuca gaue name. Of them there be 7 townes; to wit, Saguntia and Vxama, which names be often vsed in other places: besides Segouia, and Noua-augusta, Termes, and Clunia it selfe the very vtmost bound of Celteberia, all the rest lie toward the Ocean, & of the abouenamed the Verduli together with the Cantabri. To these there are ioined 12 nations of the Astures, diuided into the Augustanes & Transmontans, hauing a stately city Asturica: among these are reckned, Giguri, Pefici, Lanfienenses, & Zocla. The number of the whole multitude ariseth to 240000 pols of free men, besides slaues. The county or iurisdiction Lucensis compriseth 16 towns (besides the Celtricks and Lebunians) of base condition, and hauing barbarous names; howbeit, of free-men to the number well-neere of 166000: in like maner 24 cities, which afford 275000 pols, owe seruice to the court of Bracarum: of whom besides the Bracarians themselues, the Vibili, Celerini, Gallæci, Equifilici & Quinquerni, may be named without disdain and contempt. The length of the hither Spain, from Pyreneus to the bound of Castulo is 607 miles, & the coast thereof somewhat more. The bredth from Tarracon to the shore of Alarfon, 307 miles: & from the foot of Pyreneus, where, between two seas it is pointed with the streights, & so opening it selfe by little & little from thence, till it come to touch the farther Spain, it is as much, and addeth somewhat more. To the bredth: all Spain throughout in manner is full of metall mines, as lead, yron, brasse, silver, and gold: the hither part thereof aboundeth besides with stone glasses, or glasse stones: and Boetia particularly with vermilion. There be also there quarries of Marble. Vnto all Spaine throughout, *Vespasianus Augustus* the Emperour, tossed with the tempests and troubles of the commonweale, granted the franchises of Latium. The mountaines Pyrenæi do confine Spaine and France one from the other, lying out with their promontories into two contrary seas.

CHAP. IIII.

¶ The Prouince Narbonensis.

THat part of Gallia which is washed and beaten vpon with the Mediteranean sea, is called the prouince Narbonensis, named afore-time Braccata, diuided from Italy by the river Varus and the Alpes, most friendly mountaines to the Romane Empire: and from the other parts of Gaule, on the North side, by the hills Gebenna & Iura. For tillage of the ground

for

- A for reputation of men, regard of ciuilitie and manners, and for wealth, worthy to be set behinde no other prouinces whatsoeuer: and in one word, to be counted Italy, more truly than a prouince: in the edge or marches thereof lyeth the countrey of the Sardaons; & within the region of the Consurones. The riuers be Tecum and Vernodubrum: the townes, Illiberis (a poore relique and simple shew of a citie to that it was in old time) & Ruscio, inhabited by the Latines. The river Atax springing out of Pyreneus, runneth through the lake Rubrensis, & floreteth ouer it. *Narbo Martius* a colonie inhabited by the Legionaries of the tenth legion, twelue miles distant from the sea. Rivers, Araris and Liria. Townes in the other parts, scattering here and there by reason of pooles and meeres lying before them: namely, Agatha, in times past belonging to the Massilians, and the region of Volsæ Testofages. Also, where Rhoda of the Rhodians was, whereof Rhodanus tooke name, the most fruitfull river by far of all Gallia, running swiftly out of the Alps through the lake Lemanus, & carrying with it the dead and flow river Araris, and Isara running as fast as it selfe, together with Druentia. The two smal mouths or passages thereof are called Lybica: of which, the one is Hispanienum, the other Metapinum: a third there is besides, and the same most wide and large, named Massalioticum. There be that write, how the towne Heraclea likewise stood vpon the mouth of Rhodanus. Beyond the ditch out of Rhodanus, which was the work of *C. Marius*, & bearing his name, there was a notable poole or meere. Moreouer the town Astromela, and the maritime tract of the Auæticci: and aboue it, the stonie plains, carrying the memoriall of *Hercules* his battels. The region of the Anatilians, and within-forth, of the Desiuviates and Cauians. Againe, from the sea, Tricorum, and inward, the region of the Tricolliuocantians, Segouellaunes, and anon of the Allobroges: but in the marches, Massilia of Greeke Phocæans: within the league. The promontorie Citharista, Zaopatus, and the region of the Camatullici. After them, the Suelteri; and aboue them, Verucines: But in the coast along still, Athenopolis vnder the Massilians, Forum Iulij a Colonie of the ninth legion souldiers, which also is called Parenfis and Classica: in it is the river Argenteus: the region of the Oxubij and Liganians; aboue whom, are the Suetri, Quarientes, and Adunicates: but in the borders, a Latine towne Antipolis. The region of the Deciates, the river Varus gushing out of an hil of the Alpes, called Acema. In the middle part thereof the Colonies, Arelate of the sixth legion souldiers, Blitææ of the seuenth, and Arausia of those belonging to the second. In the territorie of the Cauians, Valentia and Vienna of the Allobroges. Latine townes, Aqua Sextiæ of the Salyans, and Auenio of the Cavians, Apta Iulia of the Vulgentians, Alebecerriurum of the Apollinæres, Alba of the Heluans, Augusta of the Tricostines, Anatalia, Aeria, Eormanni, Comacina, Cabellio, Carcasum, of the Volsæ Testofages: Cessero, Carpentoraeste, of the Menines: the Cenicesenses, Cambolesti, who are named besides Atlantici, Forum Voconij, Glanum, Livij, Luteuani, who are the same that Foro-neronienenses, Nemausum of the Arecomici, Pilsenæ, Ruteni, Sanugenses, and Tolosani, of the Testofages: The neighbor borderers vpon Aquitane, Tasco-dumetari, Canonienenses, Vmbranici. Two capitall townes of the confederat state of the Vocontians, Vasco and Lucus Augusti. But base townes of no importance nineteene, as 24 more annexed to the Nemausienses, and vnder their Seignorie. To this charter or instrument enrolled, *Galba* the Emperour added of the Alpine inhabitants, the Auantici and Eproduntij; whose town is named Dima. *Agrippa* saith, that the length of this prouince Narbonensis is 270 miles, and the breadth 248.

CHAP. V.

¶ Italy, Tiberis, Rome, Campania.

NEXT to them is Italy, and the first of all, the Ligurians: then Hetruria, Vmbria, Latium, where be the mouthes of Tiberis and Rome the head citie of the whole earth, 16 miles distant from the sea: after it is the maritime countrey of the Volsians, and Campania: then Picentium, Lucanum, and Brutium, the furthest point in the South, vnto which from the crooked mountaines of the Alpes, like in manner vnto the Moone croissant, with some parts higher, other lower, Italie shooteth out in length to the seas: from it, is the sea coast of Græcia, and soone after, the Salentines, Pediculi, Apuli, Peligni, Ferentani, Marrucini, Vestines, Sabines, Picentes, Gaules, Vmbrians, Tuscanes, Venetians, Carnians, Iapides, Istrians, and Liburnians.

Neither

Neither am I ignorant; that it might be thought and that iustly, a point of an vnthankfull G mind and idle withall, if briefly in this sort, and as it were by the way, that land should be spoken of which is the nource of all lands. She also is the mother, chosen by the powerfull grace of the gods, to make euen heauen it selfe more glorious; to gather into one the scattered empires, to soften and make ciuill the rude fashions of other countries; and whereas the languages of so many nations were repugnant, wilde, & sauage, to draw them together by commerce of speech, conference, and parley; to indue man with humanitie; and briefly, that of all nations in the world, there should be one onely countrey. But here, what should I do? so noble are all the places that a man shal come vnto, so excellent is euery thing, and each state so famous and renowned, that I am fully possessed with them all, and to seeke what to say. Rome citie, the only faire face therein, worthy to stand vpon so stately a necke and pair of shoulders, what worke would it aske thinke you, to bee set out as it ought? the very tract of Campaine by it selfe, so pleasant and goodly, so rich and happie, in what sort should it be described? So as it is plaine and manifest, that in this one place there is the workmanship of Nature wherein the ioiet and taketh delight. Now besides all this, the whole temperature of the aire is euermore so vitall, healthy, and wholesome, the fields so fertile, the hills so open to the Sun, the Forrests so harmlesse, the groues so coole and shadye, the woods of all sorts so bounteous and fruitfull, the mountaines yeelding so many breathing blasts of winde; the corne, the vines, the oliues so plentifull; the sheep so enriched with fleeces of the best wooll, the bulls and oxen so fat and well fed in the necke; so many lakes and pooles, such store of riuers and springs watering it throughout; so many seas and hauens, that it is the very bosom lying open and ready to receiue the commerce of all lands from all parts; and yet it selfe full willingly desireth to lie far into the sea to helpe all mankind. Neither do I speake now of the natures, wits, and fashions of the men; ne yet of the nations abroad subdued with their eloquent tongue, and strong hand. Euen the Greekes (a nation of all other most giuen to praise themselves beyond measure) haue giuen their iudgement of her, in that they called some small part thereof, Great Greece. But in good faith, that which we did in the mention of the heauen, namely, to touch some knowne planets and a few stars, the same must we likewise do in this one part: only I would pray the Readers to remember and carry this away, That I haften to rehearse euery particular thing through the whole round globe of the earth.

Well then, to begin, Italy is fashioned like for all the world to an Oke leafe, and much larger in length than breadth: to the left side bending with the top, and ending in the figure and fashion of an Amazonian shield, and where that tract of Calabria lyeth which is called Co-cinthus, it putteth forth into those two promontories or capes like the moones two hornes; the one, Leucopetra on the right hand; the other Lacinium on the left. In length it reacheth from the foot of the Alps, through Ostia or Prætoria Augusta, directly to the citie of Rome, and so forward to Capua, with a direct course leading to Rhegium a towne situate vpon the shoulder thereof; from which beginneth the bending as it were of the necke; and beareth 1000 and 20 miles. And this measure would grow to be far more, if it went as farre as Lacinium, but that such an obliquitie and winding might seem to decline and beare out too much vnto one side. The breadth thereof is diuersly taken, namely, 40 miles between the two seas, the higher and the lower, and the riuers Varus and Arfia. The mids of which breadth (and that is much about the citie of Rome) from the mouth of the riuer Aternus running into the Adriaticke sea, vnto the mouthes of Tiberis, 136 miles, and somewhat lesse: from Novum Castrum by the Adriaticke sea, to Alsum, and so to the Tuscan sea: and in no place exceedeth it in breadth 300 miles. But the full compasse of the whole from Varus to Arfia, is 20049 miles. Distant it is by sea from the lands round about, to wit, from Istria and Liburnia in some places 100 miles; from Epirus and Illyricum 50 miles; from Africk lesse than 200, as Varro affirmeth; from Sardinia, an hundred and 20 miles; from Sicilie, a mile and a halfe: from Coreyra lesse than 70; from Issa 50. It goeth along the seas, to the Meridional line verily of the heauen; but if a man examine it exactly indeed, it lyeth betweene the Sun rising in mid-winter, and the point of the Noone-stead.

Now will we describe the compasse and circuit thereof, and reckon the cities, wherein I must needs protest by way of Preface, that I will follow for mine Authour Augustus the Emperour of famous memorie, and the description by him made of all Italy, which be diuided into 11 Regions

A Regions or Cantons. As for the maritime townes, I will set them downe in that order, as they stand, according to their vicinity one to another. But forasmuch as in so running a speech and hasty pen, the rest cannot possibly be so orderly described: therefore in the inland part thereof, I will follow him as he hath digested them by the letters of the Alphabet: but mentioning withall, the colonies or chiefe cities by name, which he hath deliuered in that number. Neither is it an easie matter to know thoroughly their positions and foundations, considering the Ingaune Ligurians (to say nothing of all the rest) were indowed with lands thirtie times, and changed their seats. To begin with the riuer Varus therefore, there offereth to our eie, first the towne Nicæa, built by the Massilians: the riuer Po; the Alpes; the people within the Alpes of many names, but of most marke Capillati, with long haire: the towne Vediantiorum, the Citie Cemelion, or, a towne belonging to the State of the Vediantians, called Cemelion: the port of Hercules and Monachus, and so the Ligurian coast. Of the Ligurians, the most renowned beyond the Alpes, are the Sallij, Deceates, and Oxubij: on this side, the Veneni, and descended from the Caturiges, the Vagienni, Statyelli, Vibelli, Magelli, Euburiates, Casmonates, Veliates, and those, whose townes we will declare in the next coast. The riuer Rutuba, the towne Albium Intemelium, the riuer Merula, the towne Albium Ingaunum, the port or hauentowne Vadum Sabarium, the riuer Po: cifer, the towne Genua, the riuer Feritor, the Port Delphini, Tigulia: within, Segesta Tiguliorum: the riuer Macra which limiteth Liguria. Now on the back side behind all these townes about named, is Apenine, the highest mountain of all Italy, reaching from the Alpes with a continuall ridge of hills, to the streights of Sicilie. From the other side thereof to Padus, the richest riuer in all Italy, all the countrey shining with goodly faire townes, to wit, Liberna, Dertona a Colonie, Iria, Baderates, Industria, Pollentia, Carrea, which also is named Polentia, Foro Fuluij the same that Valentinum, Augusta, of the Vagienni: Alba, Pompei Asta, and Aqua Statyellorum. And this is the fifth Canton after the Geographie of Augustus. This coast or tract of Liguria containeth betweene the riuers Varus and Macra 211 miles. To it is adioined the 7 wherein is Hetruria from the riuer Macra: and it oftentimes changed the name. In old time the Pelasgians chased the Vmbrians from thence: and by them the Lydians did the like, of whose king, named they were Tyrrheni: but soon after, of their ceremonies in sacrificing, in the Greeks language *Tyrsici*. The first towne of Hetruria is Luna, famous for the haue; then the Colonie Luca, lying from the sea: and neerer vnto it is Pisa, between the riuer Aufer and Arnus, which took the beginning from Pelops and the Pisians, or Atintanians a Greeke nation. Vada Volateranea, the riuer Cecinna. Populonium of the Tuscanes in times past, situate only vpon this coast. After these the riuer Prille, and anon after Vmbro, nauigable, and of it tooke name: so forward the tract of Vmbria, and the port towne Talamon: Cossa Volscientium, a Colonie planted there by the people of Rome, Grauisca, Castrum Novum, Pyrgi, the riuer Cæretanus, and Cære it self, standing foure miles within, called Agylla by the Pelasgians who built it: Alsum and Frugena. The riuer Tiberis, distant from Macra 284 miles. Within-forth are these Colonies, Falisca descended from Argi, as Cato saith, and for distinction is called Hetruscorum. Lucus Feroniæ, Russellana, Senensis and Sutrina. As for the rest, these they be, Aretini the old, Aretini Fidentes, Aretini Iulienes, Amitinenses, Aquenses surnamed Taurini: Vlerani, Cortonenses, Capenates, Clusines the old, Clusines the new, Fluentini, fast vpon the riuer Arnus that runs before them, Fesulan, Ferentinum, Bescennia, Hortanum, Herbanum, Nepet, Nouempagi [i. the nine villages] the Shire-wick called Prefecture Claudia, or Foro Clodij: Pistorcin, Perugia, Suanenses, Saturnini, who beforetime were called Aurinini, Sudertani, Statones, Tarquinienfes, Tuscanienfes, Vetulonienfes, Veientani, Vesentini, Volaterrani surnamed Hetrusci and Volsinienfes. In the same part lie the territories Crustuminus and Cæletranus, bearing the names of the old townes. Tiberis, beforenamed Tybris, and before that Albula, from the middest well neere of Apenine, as it lies in length, runs along the marches of the Aretines: small and shallow at the first, and not able to beare a vessell without being gathered together, as it were, by fish-pooles into a head, and so let goe at fluces: as Tinia and Glanis which run into him, the which are at the same passe, and require 9 daies for collection of waters, and so are kept in for running out: in case they haue no helpe of rain at all. But Tiberis by reason of the rough, stony, and rugged channell, for all that deuise, hold, on no long cometogether, but only for troughes, to speake more truly, than boats: & thus it doth for a hundred and fifty miles, not far from Tifernum, Perugia and Otriculum: diuiding as it passeth Hetruria

Hetruria from the Vmbrians and Sabines: and so forth vntill anon, within thirteen miles of the citie [Rome] it parts the Veientian countrey from the Crustumine: and soone after the Fie-
 nate and Latine territories from the Labicane. But besides Tinia and Glanis, he is augmented
 with two and forty riuers, and especially with Nar and Anio: which riuers being also it selfe na-
 uigable, enclofes Latium behind: and neuerthelesse so many waters and fountaines are brought
 thereby into the citie, whereby it is able to receiue any ships, be they neuer so great, from the
 Italian sea; and is the kindest marchant to conueigh all commodities growing and arising in
 any place of the whole world: it is the onely riuier of all others, to speake of, and more villages
 stand vpon it and see it, than al other riuers in what land soeuer. No riuier hath lesse liberty than
 it, as hauing the sides therof enclosed on both hands, & yet he is no quarreller, nor much harm
 doth he, albeit he hath many and those suddain swellings, and in no place more than in the ve-
 ry citie of Rome do his waters overflow: yet is he taken to be a prophet rather, and a Counsel-
 lor to giue warning, yea, and in smelling, more religious and breeding scruple, to speake a truth,
 than otherwise cruell and doing any great harme. Old Latium from Tiberis to Circeios, was
 obserued to be in length 50 miles. So small roots at the first took this Empire. The inhabitants
 thereof changed often, and held it, some one time, some another; to wit, the Aborigenes, Pelas-
 gi, Arcadians, Sicilians, Auruncanes, and Rutilians. And beyond Circeios, the Volscians, Ossi-
 ans, Aufonians, from whence the name of Latium did reach soone after, as farre as to the riuier
 Liris. In the beginning of it stands Ostia, a Colonie, brought thither and planted by a Roman
 king: the towne Laurentum, the groue of *Iupiter Indiges*, The riuier Numicius, and Ardea, built
 by *Danaë* the mother of *Perseus*. Then the Colonie Antium, sometimes Aphrodisium: *Astura*,
 the riuier and the Island. The riuier Nymphæus, *Clatra Romana* Circeij, in times past an Island,
 yea and that verily enuironed with a mighty sea (if we beleue *Homer*) but now with a plain. A
 wonder it is what we are able to deliuer concerning this thing to the knowledge of men. *Theo-
 phrastus*, who of strangers was the first that writ (any thing diligently) somewhat of the Romans
 (for *Theopompus*, before whom no man made mention at all, said only, That the citie was woon
 by the Gauls: and *Clitarchus* next after him, spake of nothing else but an embassage sent vnto
Alexander) this *Theophrastus*, I say, vpon a better ground and more certaintie now than bare
 heere say, hath set downe the measure of the Island Circeij to be eightie Stadia, in that booke
 which he wrot to *Nicodorus* the chiefe Magistrate of the Athenians, who liued in the 460 yeere
 after the foundation of Rome citie. Whatsoeuer land therefore aboute tenne miles compassse
 lies neere about it, hath beene annexed to the Island. But after that, a yeere, another strange and
 wonderfull thing fell out in Italy: for not far from Circeij, there is a meere called Pomptina,
 which *Mutianus*, a man who had beene thrice Consul, reporteth to haue been a place wherein
 stood 23 cities. Then there is the riuier Vfers, vpon which standeth the towne Tarracina, called
 in the Volscian tongue Anxur, & where sometime was the citie Amycle, destroyed by serpents.
 After it is there the place of a caue or peak, the lake Fundanus, & the hauen Cajeta. The town
 Formiæ named also Hormiæ, the ancient seat (as men thought) of the Lastrigones. Beyond it
 was the towne Pyrræ, the Colonie Minturne, diuided asunder by the riuier Liris, called Clani-
 us. The vtmost frontier towne in this part of Latium laid to the other, is Sinuessa, which as
 some haue said, was wont to be called Sinope. Thence comes to shew it selfe that pleasant and
 plentifull countrey Campania. From this vale begin the hills full of vineyards, and famous for
 drunkenesse, proceeding of strong wine and the liquor of the grape, commended so highly in
 all countries: and (as they were wont to say in old time) there was the exceeding strife between
 father *Liber* and dame *Ceres*. From hence the Setine and Cecubine countries spread forth: and
 to them ioine the Falerne and Caline. Then arise the mountaines, Maffici, Gaurani and Surren-
 tine. There the Laborium Champaine fields lie along vnder their feet, and the good wheat har-
 nest to make fine frumentie for dainties at the table. The sea-coasts here are watered with hot
 fountaines, and among other commodities throughout all the sea, they beare the name for the
 rich purple shell fish, and other excellent fishes. In no place is there better or more kind oyle
 pressed out of the Oliue. And in this delightfull pleasure of mankind, the Oscians, Grecians,
 Vmbrians, Tuscanes, and Campanes haue strided who could yeeld best. In the skirt and edge
 thereof is the riuier Sauo, Vulturum the town and riuier both, Liturnum, and Cumo inhabited
 by Chalcidians, Misenum, the hauen Bajæ, Baule, the pooles Lucrinus and Auernus, neer vnto
 which was sometime the town Cimmerium. Then Puteoli, called also the Colonie Dicæarchia:
 After

After

- A After that, the plaines Phlegræi, and the meere or fenne Acherusia neere to Cumies. And vpon
 the very syron by the sea side Naples, a citie also of the Chalcidians, the same that Parthenope
 so called of the tombe of a Sirene or Meeremaid: Herculanium, Pompeij: and where not farre
 off the mountaine Vesuvius ouerlooketh, and the riuier Sernus runneth vnder the territory of
 Nuceria, and within nine miles of the sea, Nuceria it selfe. Surrentum with the promontory of
Minerua, the seat sometime of the Meermaids. From the cape Circeij lies the sea open for faile
 78 miles. This is counted the first region of Italy, next Tiberis, according to the description of
Augustus. Within it are these Colonies, Capua, so called of the Champaine country, Aquinum;
 Sueffa, Venafrum, Sora, Teanum, named withall Sidicinum and Nola: the Townes be, Abellu-
 num, Aricia, Alba Longa, Acerrani, Allifani, Atinates, Aletrinales, Anagnini, Atellani, Afulani,
 Arpinates, Auximates, Auellani, Alfaterni; and they who of the Latine, Hernick, and Albicane
 territories, are furnamed accordingly: Bouillæ, Calatiæ, Casinum, Calenum, Capitulum, Cer-
 netum, Cernetani, who be called also Mariani. Corani descended from Dardanus the Trojane.
 Cubulterini, Castrimonienfes, Cingulani, Fabienfes, and in the mount Albane, Foro populi-
 enfes. Out of the Falarne territory, Frusinate, Ferentinates, Freginates, Faratani the old, Fa-
 braterni the new, Ficolenfes, Fricolenfes, Foro-Appi, Forentani, Gabini, Terracinales, Succa-
 fani, called also Lirinates, Ilionenfes, Lauinij, Norbani, Nomentani, Prenestini, whose citie was
 in times past named Stephanus, Priuernates, Setini, Signini, Sueffulani, Telini, Trebutini fur-
 named Balinienfes, Tribani, Tusculani, Verulani, Veliterni, Vlubrenfes, Vluernates: and aboue
 also Rome her selfe: the * other name whereof to vtter, is counted in the secret misteries of cere-
 monies an impious and vnlawfull thing; which after that it was abolished, and so faithfully ob-
 serued to right good purpose and for the safetie thereof, *Valerius Soranus* blurted out, and soone
 after abid the smart for it. I think it not amisse nor impertinent, to insert there in this very place
 an example of the ancient religion instituted especially for this Silence: for the goddesse *An-
 gerona*, whose holiday is solemnly kept with sacrifices the 12 day before the Kalends of Ianua-
 ry, is represented by an Image hauing her mouth fast sealed and tied vp. This citie of Rome
 had 3 gates when *Romulus* left it, or rather foure (if we beleue the most men that write thereof)
 The wals thereof, when the two *Vespasians*, Emperors and Censors both, to wit, the Father and
Titus his son, took the measure, which was in the yere after the foundation of it 828, were in cir-
 cuit * 13 miles and almost a quarter. It containeth within it, seuen Mountaines, and is diuided
 D in 14 regions, and 265 crosse streets or carfours, called Compita Larium. The measure of the
 same equall space of ground, running from the gilden pillar Milliarium, erected at the head or
 top of the Rom. Forum, to euery gate which are at this day 37 in number, so ye reckon once the
 12 gates alwaies open, and ouerpass 7 of the old, which are no more extant, maketh 30 miles
 3 quarters and better, by a straight line: but if the measure be taken from the same Milliarium
 before said, through the suburbs to the vtmost ends of the houses, and take withall the *Castra*
Prætoria, and the pourprise of all the streets, it comes to somewhat aboute 70 miles: whereunto
 if a man put the height of the houses, hee may conceiue verily by it, a worthy estimate of the
 excellency thereof, and confesse that the stateliness of no citie in the world could be compara-
 ble to it. Enclosed it is and fenced on the East-side, with the bank or rampier of *Tarquinius* the
 Proud; a wonderfull peece of worke as any other, and as excellent as the best: for he raised it
 full as high as the wals, in that side where the aduenue to it was most open and plaine. In other
 parts, defended it was and fortified with exceeding high wals, or else steepe and craggy hills, but
 only whereas there are buildings lye out abroad, and make as it were many petty cities. In that
 first region of Italy there were besides, first for Latium these faire townes of marke, Sarricum,
 Pomictia, Scaptia, Pitulum, Politorium, Tellene, Tifata, Camina, Ficana, Crustumium, Ame-
 riola, Medullia, Corniculum, Saturnia, where now Rome standeth. Antipolis, which now is Ia-
 niculum, in one part of Rome: Antemnae, Camerium, Collatiæ: Amitemum, Norbe, Sulmo: and
 with these, the States that were wont to receiue a dole of flesh in mount Albane, to wit, Alben-
 fes, Albani, Aesolani, Acienfes, Abolani, Bubetani, Bolani, Casuetani, Coriolani, Fidenates, Fo-
 retij, Hortenies, Latinenfes, Longulani, Manates, Marales, Mutucumenfes, Munienfes, Numini-
 enfes, Olliculani, Ostulani, Pedani, Pollustini, Querquetulani, Sicani, Sisolenfes, Tolerienfes, Tu-
 tienfes, Vimitellarij, Velienfes, Venetulan, Vicellenfes. Thus yee see, how of the old Latium,
 there be 53 States perished and cleane gone, without any token left behinde. Moreover, in the
 Campanie countrey, the towne Stabiæ continued vnto the time that *Cn. Pompeius* and *L. Carbo*
 were

* Valentia

* Somereade
30.

were Consuls, euen vntill the last day of Aprill; vpon which day, *L. Silla* a lieutenant in the Allies war, destroyed it vtterly: which now at this day is turned into graunges and ferme-houses. There is decayed also there and come to finall ruine, *Taurania*. There be also some little reliques left of *Capilinum*, lying at the point of the last gaspe. Moreover *Antias* writes, that *Apollonia* towne of the Latines, was woon by *L. Tarquinius* the King, with the Pillage whereof he began to found the Capitoll. From *Surrentum*, to the riuer *Silarus*, the Picentine countrey lay for the space of 30 miles, reowned for the Tuscanes goodly temple built by *Iason* in the honor of *Iuno Argica*. Within it stood the townes *Salernum*, and *Picentia*. At *Silarus*, the third region of Italy, beginnes together with the Lucane and Brutian countries: and there also the inhabitants changed not a few times. For held and possessed it was by the *Pelasgi*, *Oenotri*, Italy, *Morgeres*, *Sicilians*, people all for the most part of great Greece: and last of all by the *Lucanes* descended from the *Samnites*, who had to their leader and gouernour, *Lucius*. In which standeth the town *Pastum*, called by the Greeks *Posidonia*: the Firth or creeke *Pastanus*, the town *Helia*, now *Velia*. The promontory *Palinurum*, from which creeke retired within-forth, there is a direct cut by water to the colunne regia, 100 miles ouer. Next vnto this, the riuer *Melphes* runneth also there standeth the towne *Buxentum*, in Greeke, *Pyxus*, and last by is the riuer *Lausia* towne there was likewise of the same name. And from thence beginneth the sea coast of *Brutium*, where is to be seen the towne *Blanda*, the riuer *Batum*, the haueu *Parthenius* belonging to the *Phocæans*: the Firth *Vibonensis*, the groue *Clamptia*. The towne *Temsa*, called of the Greeks *Temese*: and *Terina* held by the *Crotonians*, and the mighty arme of the sea, called the gulfe *Terineus*: the towne *Consentia*. Within-forth in a demy Island, the riuer *Acheron*, whereof the townesmen are called *Acherontium*. *Hippo*, which now we call *Viboua*, *I* *Ientia*; the Port of *Hercules*, the riuer *Metaurus*, the towne *Taurinum*, the haueu of *Orestes*, and *Medua*: the towne *Scylleum*, the riuer *Cratais*, mother (as they say) to *Scylla*. Then after it, the colunne *Rhegia*: the *Sicilian* freights or narrow seas, and two capes one ouer-against the other; namely, *Cænis* from Italy side, and *Pelorum* from *Sicily*, hauing a mile and a halfe betwene them: from whence to *Rhegium* is 12 miles and a halfe: and so forward to a wood in the *Apennine*, called *Sila*; and the promontorie or cliffe called *Leucopetra*, 12 miles off. From which, *Locri* (carrying the name also of the promontorie *Zephyrium*) is from *Silarus* distant 303 miles. Here is determined the first gulfe of Europe, wherein be named these seas. First, *Atlanticum* (from which the Ocean sea breaketh in) called of some *Magnum*: the passage whereas it entreth, is of the Greeks called *Porthmos*; of vs, *Fretum Gaditanum*. [The freights of *Gebralter*] when it is once entred the Spanish sea, so farr as it beateth vpon the coasts of *Spain*: Of others, *Ibericum*, or *Balearicum*: and anon it taketh the name of *Gallicum*, or the French sea, right before the prouince *Narbonensis*: and after that, *Ligusticum*: from whence all the way to the Island *Sicilie*, it is called *Tuscum*; which some of the Grecians terme *Notium*; others *Tyrrhenum*, put most of our countrimen *Inferum*. [The nether sea.] Beyond *Sicily* as farr as to the *Salentines*. *Polybius* calleth it *Aufonium*: but *Erato* *Stibenes* nameth all the sea *Sardonum*, that is between the mouth of the Ocean and *Sardinia*: and from thence to *Sicilie*, *Tyrrhenum*; and from it as far as to *Creta*, *Siculum*: from which it is hight *Creticum*. The Islands discovered along these seas, were these: The first of all, those which the Greeks named *Pityusa*, of the Pine shrub or plant; but now, *Ebusus*: they are both a State confederate, and a narrow arme of the sea runneth between them; they are 42 miles ouer. From *Dianeum*, they lie 70 stadia: and so many are there betwene *Dianeum* and *Carthage*, by the maine land: and as much distance from *Pityusa* into the maine Ocean, lie the two *Baleare* Islands; and toward *Sucro*, *Colubaria*. These *Baleares* in their warre-seruice vse much the sling; and the Greeks name them *Gymnetie*. The bigger of them is an hundred miles in length, and in circuit 380. Townes it hath of *Romane* citizens, *Palma* and *Pollentia*: of *Latines*, *Cinium* and *Cunicias* for *Bochri*, it was a towne confederate. From it, the lesser is thirtie miles off, taking in length 60 miles, and in compass 150. Cities in it, be *Iamno*, *Sanifera*, and *Mago*. From the bigger 12 miles into the sea, lieth the *Isle Capraria*, which lies in wait for all shipwracks: & ouer-against the city *Palma*, *M* *Menaria*, and *Tiquadra*, and little *Annibalis*. The soile of *Ebusus* chafeth serpents away, but that of *Colubaria* breeds them: and therefore dangerous it is for all that come into it, vnlesse they bring with them some of the *Ebusian* earth. The Greeks call this Island, *Ophiusa*. Neither doth *Ebusus* breed any Conies; which are so common in the *Baleares*, that they eate vp their corne. There

A There be as it were 20 more little ones among the shelues of the sea. Now in the maritime coast of *Gallia* in the very mouth of *Rhodanus*, there is *Metina*; and soone after, that which is called *Blasca*; and the three *Stœchades*, called so of their neighbors the *Massilians*, for the order and ranke wherein they stand; and they giue them euery one a seuerall name, to wit, *Prote*, *Mese* (which also is called *Pomponiana*) and the third, *Hypea*. After them, are *Sturium*, *Phœnice*, *Phila*, *Lero*, and *Lerina* ouer-against *Antipolis*; wherein also is a token or memoriall of the towne *Vergaonum*.

CHAP. VI.

¶ Of Corsica.

B

I N the *Ligurian* sea is *Corsica* the Island, which the Greeks called *Cynos*, but nearer it is to the *Tuscan* sea; it lyeth out from the North into the South, and containeth in length an hundred and fiftie miles: in breadth for the most part it beareth fiftie: in circuit 322: distant it is from the *Washes* or *Downes* of *Volaterra* 62 miles. Cities it hath 35: and these colonies, to wit, *Mariana*, planted there by *C. Marius*; *Aleria*, by *Dictatour Sylla*. On this side of it is *Oglasa*; but within 60 miles of *Corsica*, there is *Planaria*, so called of the forme thereof, so flat it is and leuell with the sea; and therefore deceiue many a ship that runneth aground vpon it. Bigger than it are *Virgo* and *Capraria*, which the Greeks called *Ægilos*. In like manner *Ægilium* & *Dianium*, the same that *Artemisia*, both lying ouer-against the coast *Cosanum*. Other small ones also, as *Mænaria*, *Columbarie*, *Venaria*, *Ilua*, with the yron mines, in circuit a hundred miles (ten miles from *Populonia*) called of the Greeks, *Æthalia*: from it is *Planasia* 39 miles off. After them, beyond the mouthes of *Tybre* in the *Antian* creeke, is *Astura*, and anon *Palmaria*, *Sinonia*, and iust against *Formia*, *Pontia*. But in the *Puteolan* gulfe, *Pantadaria* and *Prochyta*, so called, not of *Æneas* his nource, but because it was broken off by the gushing betwene of the sea from *Ænaria*. *Ænaria* it selfe tooke that name of *Æneas* his ships that lay in rode there, called by *Homer* *Inarime*, of the Greeks *Pithecus*, not for the number of Alps there, as some haue thought, but of the worke houses and furnaces of potters that made earthen vessels, as tunnes and such like, to furnish Italy with. Betwene *Pausilypus* and *Naples*, *Megariss*; and soon after, eight miles from *Surrentum*, *Capræ*, renowned for the castle there of Prince *D. Tyberius*; and it beareth in compass foure hundred miles. Anon you shall see *Leucothea*: but without your kenning lyeth *Sardinia* fast vpon the *Africke* sea, but lesse than nine miles from the coast of *Corsica*: and still those freights are made more narrow by reason of small Islands, named *Cuniculariæ*. Likewise *Phintonis* and *Fossæ*, whereof the very sea it selfe is named *Taphros*.

CHAP. VII.

¶ Of Sardinia.

S ARDINIA on the East side beareth 188 miles, on the West, 170, Southward, 74, and Northward 122: so that in all, it taketh vp the compass of 560 miles. It is from the Cape of *Caraleis* to *Africke* 200 miles: from *Gades* it is distant 1400 miles. It hath two Islands on that side where the Promontorie *Gorditanum* standeth, which be called *Hercules* Islands: of *Sulfenses* cape side, *Enosis*; of *Caralitani*, *Ficaria*: some set not far from it the Islands *Belarides*, and *Collodes*: and another which they call *Heras Lutra*. *Innoes* lauer, or *Hieraca*. The States of greatest name therein be the *Ilienses*, *Balari*, and *Corsi*: and of the foure townes, the chiefe are inhabited by the *Sulcitani*, *Valentines*, *Neapolitans*, *Bosenses*, and *Caralitani* who are *Roman* enfranchised citizens, and *Norenses*. One colonie there is in it and no more, which is called, *Ad Turrim Libyfonis*. This island *Sardinia*, *Timæus* called (of the fashion of a shooe or slipper) *Sandalioris*: but *Myrsylus*, for the resemblance of a foors-step, *Ichnusa*. Ouere-against the creeke *Pastanum*, there is *Leucasia*, called so of a Mere-maid or Sirene there buried: against *Vestia*, there lie *Pontia* and *Issia*, both iointly called by one name *Oenotides*; a good presumption and argument that Italy was possessed by the *Oenotrians*. And against *Vibo*, other little ones, called *Ithacefiæ*, the watch townes of *Phlysses*.

G

CHAP.

BVt Sicilie excelleth all other of these Islands, named by *Thucydides* Sicania; by many, *Tri-nacria*, or *Triquetra* of the triangle forme. It is in circuit (as *Agrippa* saith) 198 miles. In time past it grew to the Brutians countrey, but soone after by the gushing of the sea between, it was plucked from it, and left a Firth of 12 miles in length, and one & a half in breadth, neere vnto the colume Rhegium. Vpon this occasion of opening and cleauing in twaine, the Greekes gaue name to the town Rhegium, scituate in the edge of Italy. In this narrow sea there is a rocke called *Scylla*, and likewise another named *Carybdis*: the sea is full of whirlle-pits, and both those rocks are notorious for their rage and mischief. The vtmost Cape or fore-land of this Island *Triquetra* (as we haue said) is called *Pilorus*, bending against *Scylla* toward Italy. As for *Pachynum*, it lieth toward *Græcia*, and from it is *Peloponnesus* distant 144 miles. *Lilybæum* butteth vpon *Africke*, and between it and the cape of *Mercury* there be 180 miles: and from the said *Lilybæum* to the cape of *Caraleis* in *Sardinia* 120. Now these points & promontories lye asunder one from the other in this distance. By land from *Pelorus* to *Pachynum*, 166 miles: from thence to *Lilybæum* 200 miles: so forward to *Pelorus* 170. In it, of colonies, towns, and cities, there be 72. From *Pelorus* side, which looketh toward the *Ionian* sea, yee haue the towne *Messana*, inhabited by enfranchised Roman citizens, and they be called *Mamertini*. Also the cape *Drepanum*, the colony *Taurominium*, called before-time *Naxos*: the riuer *Afines*, the mountaine *Ætna*, miraculous for the fires there in the night season; the hole or open chinke in the top of it is in compasse two miles and a halfe; the imbers and sparkling ashes thereof, fly hot as far as to *Taurominium* and *Catana*: but the cracking noise thereof may be heard as far as to *Maron*, and the hills *Gemellis*. In this island there be also the three rocks of the *Cyclops*, the port of *Vlysses*, the colony *Catana*, the riuers *Symethum* and *Terias*: within the Isle by the plains and champion fields, *Læstrigoni*. The towns are these, *Leontini*, and *Megar*: and in it is the riuer *Pantagies*; also the colony *Syracusa*, together with the fountain *Arethusa*. Albeit there be other springs also in the territory of *Syracusa*, that yeld water for drinke, to wit, *Temenitis*, *Archidemia*, *Magæa*, *Cyane*, and *Milichre*. Moreover, the haven *Naustatmos*, the riuer *Elorum*, the promontorie *Pachynum*: and on this front of Sicily, the riuer *Hirminium*, the towne *Camarina*, the riuer *Helas*, and town *Acragas*, which our countrey men haue named *Agri-gentum*. The colony *Therma*: riuers, *Atys* and *Hypsa*, the town *Selinus*: and next to it the cape *Lilybæum*, *Drepana*, the hill *Eryx*. Townes there be, *Panhormum*, *Solus*, *Hymetta* with the riuer, *Cephalædis*, *Aluntium*, *Agathirium*, *Tyndaris* a colony, the town *Mysæ*, and whence we began *Pelorus* within-forth, of Latin condition and Burgeoisie, the *Centuripines*, *Netines*, and *Segestines*. *Tributaries*, *Affarines*, *Ætnenses*, *Agrynes*, *Acetasi*, and *Acrenses*: *Bidini*, *Citarij*, *Caciritani*, *Drepanitani*, *Ergetini*, *Ecehestines*, *Erycini*, *Eutellini*, *Erini*, *Euguini*, *Gelani*, *Galatani*, *Halesines*, *Ennenses*, *Hybientes*, *Herbitenses*, *Herbessenses*, *Herbulonenses*, *Halicynenses*, *Hadranitani*, *Imacarenenses*, *Ichanenses*, *Ictenses*, *Mutustratini*, *Magelini*, *Murgentini*, *Mutyenses*, *Menanini*, *Naxij*, *Noæni*, *Pelini*, *Paropini*, *Phinthiensenses*, *Semellitani*, *Stherini*, *Selinuntij*, *Symetij*, *Talarenses*, *Tissinenses*, *Triocalini*, *Tiracienses*, *Zanchei* belonging to the *Messanians* in the freights of Sicilie. Islands there be bending to *Africke*, *Gaulos*, *Melita*, from *Camarina* 84 miles, and from *Lilybæum* 112: *Cosyra*, *Hieronefus*, *Cane*, *Galata*, *Lopadusa*, *Æthusa* which others haue written *Ægusa*, *Bucina*, and 75 miles from *Solus*, *Oteodes* and against the *Paropini*, *Vfrica*. But on this side Sicilie ouer-against the riuer *Metaurus*, 12 miles well-neare from Italy, 7 others called *Æolæ*. These very same islands belonged sometimes to the *Liparaeans*, and of the Greeks were called *Hephæstades*, and of our men *Vulcaniæ*, likewise *Æoliæ*, because *Æolus* reigned there in the time that *Ilium* flourished, and about the Trojan war.

Lipara with a towne of Romane citizens, called so of king *Liparus*, who succeeded *Æolus*, but before time *Melagonis* or *Meligunis*, is 12 miles from Italy, and is it selfe somewhat lesse in circuit. Between this and Sicily there is another, sometime named *Therassia*, now *Hiera*,

A *Hiera*, because it is consecrated to *Vulcan*, wherein there is a little hill that belcheth and casts vp flames of fire in the night. A third there is also, named *Strongile*, a mile from *Lipara*, lying toward the Sunne rising (wherein *Æolus* reigned) and differeth from *Lipara* onely in this, that it sendeth forth more cleere flames of fire: by the smoke thereof, the people of that countrey will tell (by report) three daies before hand what windes will blow: whereupon it is commonly thought that the windes were obedient to *Æolus*. A fourth there is besides, named *Didyme*, lesse than *Lipara*: and a fift, *Ericusa*: a sixt, *Phænicusa*, left to feed the rest that are next to it: the last and least is *Euonymus*. And thus much concerning the first gulfes that diuide Europe.

AT *Locres* beginneth the front or forepart of Italy, called *Magna Græcia*, retiring it selfe into three creekes of the *Ausonian* sea, because the *Aufones* first inhabited thereby. It extendes 82 miles, as *Varro* testifieth. But the greater number of writers haue made but 72. In that coast there be riuers without number. But those things which are worth the writing of neere vnto *Locres*, be these, *Sagra* the riuer, and the reliques of the towne *Caulon*: *Myrtia* the castle *Consilium*, *Cerinthus*, which some think to be the vtmost promontory of Italy, bearing farthest into the sea. Then follow the creeke or gulfes *Scylacensu*, and that which was called by the Athenians when they built it, *Scylletium*. Which place another creeke *Tirenæus*, meeting with, makes a demie Island: in which there is a port towne called *Castra Anibills*: and in no place is Italy narrower, being but twenty miles broad. And therefore *Dionysius* the elder would haue there cut it off quite from the rest; and laid it to Sicilie. Riuers nauigable there be these, *Cæcinos*, *Crotalus*, *Semirus*, *Arocha*, *Targines*. Within forth is the towne *Petilia*, the mountaine *Alibanus*, and promontory *Lacinium*: before the coast whereof there is an Island tenné miles from the land, called *Dioscoron*, and another *Calypsus*, which *Homer* is supposed to haue called *Ogygia*. Moreover, *Tyris*, *Eranusa*, *Meloeffa*. And this is seuentie miles from *Caulon*, as *Agrippa* hath recorded.

FFrom the promontory *Lacinium* beginneth the second sea of Europe: it takes a great winding and compasse with it, and endeth at *Acroceræunium*, a promontory of *Epirus*, from which it is seuentie miles distant. In which there sheweth it selfe the towne *Croto*, and the riuer *Næathus*. The towne *Thurium* betweene the two riuers, *Arathis* and *Sybaris*, where there was a towne of the same name. Likewise between *Siris* and *Aciris* there stands *Heraclea* sometime called *Siris*. Riuers, *Acalandrum*, *Masientum*: the town *Metapontum*, in which the third region of Italy taketh an end. The Inlanders be of the Brutians, the *Aprustans* only: but of *Lucanes*, *Thoatinates*, *Bantines*, *Eburines*, *Grumentines*, *Potentines*, *Sontines*, *Sirines*, *Sergilanes*, *Vrsentines*, *Volcantanes*, vnto whom the *Numestranes* are ioined. Besides all these, *Cato* writes, That *Thebes* of the *Lucanes*, is cleane destroyed and gone. And *Theopompus* saith, That *Pandusia* was a citie of the *Lucanes*, wherein *Alexander* king of the *Epirotes* was slaine. Knit hereunto is the second region or tract of Italy, containing within it the *Hirpines*, *Calabria*, *Apulia*, & the *Salentines* within an arme of the sea, in compasse 250 miles, which is called *Tarentinus* of a towne of the *Laconians*, scituate in the inmost nouke, or creek hereof: and to it was annexed and lay the maritime Colonie which there was. And distant it is from the promontory *Lacinium* 116 miles, putting forth *Calabria* like a demy Island against it. The Greeks called it *Messapia* of their capitaines name, and before-time, *Peucetia* of *Peucetius*, the brother of *Oenotrus*. In the *Salentine* country between the two promontories, there is a 100 miles distance. The breadth of this demie Island, to wit, from *Tarentum* to *Brindis* (if you goe by land) is two and thirtie miles, but far shorter if you saile from the Hauen or Bay *Safina*. The townes in the Continent from *Tarentum*, be *Varia*, surnamed *Apula*, *Cessapia* and *Aletium*. But in the coast of the *Sebones*, *Gallipolis*, now *Auxa*, 62 miles from *Tarentum*. Two and thirtie miles off is the promontorie which they call *Acra Iapygia*, and here Italy runneth farthest into the sea. Then

is there the town Bastia, and Hydruntum in the space of nineteen miles, to make a partition betwene the Ionian and Adriaticke seas, through which is the shortest cut into Greece ouer against the towne Apollonia, where the narrow sea running between, is not about fiftie miles ouer. This space between, *Pyrrhus* king of Epirus, was the first, that intending to haue a passage ouer on foot, thought to make bridges there: after him *M. Varro*, at what time as in the Pyrates warre he was Admirall of *Pompeies* fleet. But both of them were let and stopped with one care or other besides. Next to Hydrus there is Soletum, a citie not inhabited: then, Fratuertium: the hauen Tarentinus, the garrison towne Lupia, Balesium. Caelium, Brundisium fiftene miles from Hydrus, as much renowned as any towne of Italy for the hauen, for the surer sailing, although it be the longer, and the citie of Illyricum Dyrragium is ready to receiue the ships: the passage ouer is 220 miles. Vpon Brunditum bordereth the territory of the Pædiculi. Nine young men there were of them, and as many maids, descended from the Illyrians, who begat betwene them thirteen nations. The townes of these Pædiculi, be Rhudia, Egnatia, Barion, beforetime Iapyx of *Dedalus* his sonne, who also gaue the name to Iapygia. Riuer, Pactius, and Ausidus issuing out of the Hirpine mountaines, and running by Canusium. Then follows Apulia of the Daunians, surnamed so of their leader, father in law to *Diomedes*. In which is the towne Salapia, famous for the loue of an harlot that *Annibal* cast a fancie vnto; then, Sipontum and Vria: also the riuer Cerebus, where the Daunians take their end: the port Agasus, the cape of the mountaine Garganus, from Salentine or Iapygium 234 miles, fetching a compasse about Garganus: the hauen Garnæ, the lake Pantanus. The riuer Frento, full of Baies and Hauens, and Teanum of the Apulians. In like manner also, Larinum, Aliturnia, and the riuer Tifernus. Then commeth in the region Frentana. So there be three kindes of nations, Teani, of their leader, from the Greekes: the Lucanes subdued by *Calchas*, which quarters now the Atinates hold and occupie. Colonies of the Daunians besides the abouenamed, Luceria, and Venusia: townes, Canusium, Arpi, sometime Argos Hippium, builded by *Diomedes*, but soon after called Argyrippa. There *Diomedes* vanquished and destroyed the whole generation of the Monadians and Dardians, together with two cities, which grew to a merry iest by way of a by-word, Apina and Trica. The rest be more inward in the second region, to wit, one Colonie of the Hirpines called Beneuentum, changed into a more luckie name, whereas in times past it was cleaped Maleuentum: the Æculanes, Aquilonians, and Abellinates, surnamed Protropi: the Campsanes, Caudines, and Ligurians, surnamed Cornelians: as also Bebianes, Vescellanes, Deculanes, and Aletines: Abellinates surnamed Marfi, the Atranes, Æcanes, Acellanes, Attinates, & Arpanes: the Borcanes, the Collatines, Corinenses; and famous for the ouerthrow of the Romanes there, the Cannians: the Dirines, the Metintanes, the Genusines, the Hardonians and Hyrines: the Larinates surnamed Frentanes, the metinates, and out of Garganus the Marcolanes, the Neritines, and Natines, the Rubustines, the Syluines and Strapellines, the Turmentines, the Vibinates, Venusines, and Vlurtines. Now the Inlanders of the Calabrians, the Ægirines, Apanesines and Argentines. The Butuntines and Brumbestines, the Decians, the Norbanes, the Palions, Sturnines, and Tutines. Also of Salentine midlanders, the Aletines, Basterbines, Nereines, Valentines, and Veretines.

CHAP. XII.

¶ The fourth Canton or region of Italy.

Now followeth the fourth region, euen of the most hardie and valiant nations of all Italy. In the coast of the Frentanes, next to Tifernus, is the riuer Tirinum, full of good hauens and harbours. The towns there, be Histonium, Buca, and Ortona, with the riuer Aternus. More within the countrey, are the Anxanes surnamed Frentanes: the Carentines, both higher and lower, the Januenses of Marrucines, the Teatines: of Pelignians, the Corfinienses, Super-Æquani and Sulmonenses of Marciens, the Anxantines and Atinates, the Fucentes, Lucentes, and Maruij: of Alba vpon the lake Fucinus: of Æquiculanes, the Cliternines and Carfeolanes: of Vestines, the Augulanes, Pinnenfes, Peluinates, vnto whom are ioined the Ausinates on this side the mountaines: of Samnites, whom the Greekes called Sabellians and Saunites, The Colonie Bouianum, the old, and another surnamed Vndecumanorum, namely, inhabited by those of the eleuenth legion: the Aufidenates, Efermines, Fagifulan, Ficolenses, Sepinates,

A nates, Treuentinates: of the Sabines, the Amiternines, Curenfes, Forum Decij, Forum Novum, the Fidenates, Interamnates, Nursines, Nomentanes, Reatines, Trebulanes, surnamed Mutuscaï, as also Suffenates, the Tiburtes, and Tarinates. In this quarter of the Æquiculæ there be perished and gone the Comines, Tadianes, Acedikes, and Alfaterni. *Gellianus* writeth, that Acippe, a towne of the Marfians, built by *Marfias* a captaine of the Lydians, was drowned and swallowed vp by the lake Fucinus. Also *Valerian* reporteth, that a towne of the Vidicines in Picenum was vtterly ruined by the Romans. The Sabines as some haue thought were for their religion and deuout worshipping of the gods called Sevini: they dwell hard by the Veline lakes vpon moist and dewie hills. The riuer Nar draineth them dry with his hot waters of brimstone: which riuer running from thence toward Tyberis filleth it; and gliding from the hill Fiscellus, neere the groues of Vacuna and Reate, is hidden in the same. But from another side, the riuer Anio, beginning in the mountain of the Trebanes, bringeth with it into Tiberis three lakes of great name for their delectable pleasantnes, which gaue the name to Sublaquenfu. In the Reatine territorie is the lake Cutiliæ, wherein floteth an Island; and this lake, as *M. Varro* saith, is in the very midst and centre of Italy. Beneath the Sabines lieth Latium; on the side Picenum; behinde, Vmbria; and the hills of the Apennine on either hand, do inclose as with a rampier, the Sabines.

CHAP. XIII.

¶ The fifth Region.

C The fift region is Picene, a Nation in times past most populous, 360000 of the Picentes were reduced vnder the protection of the people of Rome. They are descended from the Sabines, vpon a vow that they made to hold and solemnise a sacred spring. They dwelt by the riuer Aternus, where now is the territorie Adrianus, and the Colonie Adria, seuen miles from the sea. There runneth the riuer Vomanum, and there lieth the Prætutiane and Palmenfis territorie: also Castrum novum, the riuer Batinum, Truentum with the riuer, the onely felique of the Liburnians remaining in Italy. More riuers there be, to wit, Alpulates, Suinum, and Heluinum, at which the Prætutian country endeth, and the Picentian beginneth. The towne Cupra, castle of the Firmanes, and aboue it the colony Ascuum, of all Picenum the most renowned. Within standeth Nouana. In the edge or marches without are Cluana, Potentia, and Numana, built by the Sicilians. Next to those is the colony Ancona, with the promontory Cumerum lying hard vnto it, in the very elbow of the edge thereof as it bendeth, being from Garganus 183 miles. Within forth do inhabit the Auximates, Beregranes, Cingulanes, Cuprenses surnamed the Mountainers, Falariens, Paululanes, Pleninenfes, Ricinenfes, Septempedani, Tollerintates, Triacenses, the city Saluia, and the Tollentines.

CHAP. XIII.

¶ The sixth Region.

E To these adioyneth the sixt region, comprehending Vmbria and the French pale about Ariminum. At Ancona begin the French marches, by the name of Togata Gallia. The Sicilians and Liburnians possessed most part of that tract, and principally the territories, Palmenfis, Prætutianus, and Adrianus. Then the Vmbrians expelled: these againe Herruria draue out: and lastly the Gaules disseised it. The people of Vmbria are supposed of all Italy to be of greatest antiquity, as whom men thinke to be of the Greekes named Ombrici, for that in the generall deluge of the countrey by raine they only remained aliue. The Tuscans are knowne to haue by war forced and woon 300 townes of theirs. At this day in the frontier of it there are the riuer Æsus, and Senogallia; the riuer Metaurus, and the colonie Fanum Fortunæ. Pisaurum also with the riuer. In the parts within, Hispellum and Tuder. In the rest, the Amerines, Attidates, Agrinates, Arnates, and Æsinates, Camertes, Casventillanes, and Carfulanes, Dolates, surnamed Salentines, Fulginates, Foro-flaminienfes, Foro-Iulienfes, named also Concubienfes, Foro-Bremitian, Foro-Sempronienfes, Iguini, Interamnates, surnamed Nartes, Meuanates, Meuinienfes, and Matilicates, Narnienfes, whose towne before-time was called Nequinum. Nucernines, surnamed Fauonienfes, and Camelani. The Otriculanes, and Ostranes.

The Pitualnes, with the addition of Pisuert, as also others surnamed Mergentines, and the Pellesines, Sentinates, Sarfinates, Spoletines, Suarranes, Sestimates, and Suillates, Sadinates, Trebiates, Tuficanes, Tifernates, named withal Tribertines, as also other of them distinguished by the name of Metaurense. The Vessonicates, the Vrbinate, as well they that be surnamed Metaurense, as others Hortenses, the Vettionenses, Vindenates, and Viuentanes. In this tract are extinct the Felignates, and they who possessed Clusiolum above Interamna: also the Sarra-nates, with the towns Acerræ, called besides Vafriæ, and Turceolum, the same that Vetriolum. Semblably the Solinates, Suriates, Fallienates, Apiennates. There are gone also and cleane lost the Arienates with Crinoulum, also the Vfidicanes and Planganse, the Pisinates, and Cæle-fines. As for Amera above written, *Cato* hath left in record, that it was built 964 yeres before the war against *Perseus*.

CHAP. XV.

¶ The eighth Region.

The eight region is bounded with Ariminum, Padus, and Apennine. In the borders therof is the riuier Crustumium, the colony Ariminum, with the riuers Ariminum and Aprusa. Then the riuier Rubico, the vtmost limit somtime of Italy. After it Sapis the riuier, Vitis, and Anemo, Rauenna a towne of the Sabines, with the riuier Bedesæ, 102 miles from Ancona. And not far from the Vmbrian sea, Butrium. Within-forth are these colonies, Bononie, vsually called Felsina when it was the head city of Hetruria, Brixillum, Mutina, Parma, Placentia. Towns, Cæfena, Claterni, Forum Clodij, Liuij, and Poplij, pertaining to the Truentines: also [Forum] the Cornelij, Laccini, Fauentini, Fidentini, Otesini, Padinates, Regiensæ a Lepido, Solonates: also the forrests Galliani, surnamed Aquinates, Tanetani, Veliates surnamed Vesteri, Regiates and Vmbranates. In this tract the Boij are consumed, who had 112 tribes or Kindreds, as *Cato* saith. Likewise the Senones, they that tooke Rome.

CHAP. XVI.

¶ Of the riuier Padus.

Padus, issuing out of the bosome of the mountaine Vesulus, bearing vp his head aloft into a mighty height, runs from a marvellous spring worth the seeing, in the marches of the Ligurian Vagienni, and hiding it selfe within a narrow trench as it were vnder the ground and rising vp again in the territorie of the Forovibians, is inferior to no other riuers for excellencie. Of the Greeks it was called Eridanus, and is much spoken of and well knowne, for the punishment of *Phaeton*. It swelleth about the rising of the Dog star, by reason the snow is then thawed: more vnruely and rough vnto the fields thereby, than to the vessels vpon it, howbeit it stealeth and carieth away nothing as his owne; but when he hath left the fields, his bountie is more seen by their plenty and fruitfulness: from his head he holdeth on his course 90 miles wanting twain about 300. In which his passage he taketh in vnto him not only the nauigable riuers of the Apennine and the Alps, but huge main lakes also that discharge themselves into him: so as in all he carieth with him into the Adriaticke sea to the number of 30 riuers. The chiefe and most notorious of them all are these, sent out of the side of Apennine; Tanarus, Trebia, Placentine, Tarus, Nicea, Gabellus, Scultenna, Rhenus. But running out of the Alps, Stura, Morgus, Duria twaine, Sessites, Ticinus, Lambrus, Addua, Olius, and Mincius. And there is not a riuier againe that in so little a way groweth to a greater streame: for ouercharged it is and troubled with the quantitie of water, and therefore worketh it selfe a deepe channell heauie and hurtfull to the earth vnder it, although it be deriued and drawne into other riuers and goles, betweene Rauenna and Atium, for an hundred and twenty miles; yet because hee belcheth and casteth them out from him in so great abundance, he is said to make 7 seas. Drawn he is to Rauenna by a narrow channel, where he is called Badusa, and in times past Messanicus. But the next mouth that he maketh carieth the bignesse of an haueu, which is named Vatre-ni: at the which *Claudius Caesar* as hee came triumphant out of Britaine entred into Adria with that huge Vessell more like a mighty great house than a Ship. This mouth of it was before-time called Eridanum: of others, Spineticum, of the city Spina neere by, built by *Diomedes*, (as

A (as some thinke) with the treasures of Delphie. There the riuier Vatre-nus from out of the territory of Forum Cornelij, encreaseth Padus. The next moneth that it hath, is Caprasia, then Sagis, and so forth Volane, which before-time was called Olane. All those riuers and trenches the riuier acrosse into the Atrian meeres, which are called the feuen seas, and made the famous haueu of Atria a towne of the Tuscanes, of which the Adriaticke sea tooke the name afore-time, which now is called Adriaticum. From thence are the full mouthes there of Carponaria and the Fosse Phylistinæ which others call Tartarus, but all spring out of the ouerflowing of the Fosse Phylistina, holpen with Athesis comming out of the Tridentine Alpes, and Togifonus out of the territory of the Padouans: Part of them made also the next port Brundulum: like as the two Medoaci and the Fosse Clodia, make Edron. With these Padus mingleth it selfe, and by these he runneth ouer, and as it is said by most writers, like as in Egypt Nilus maketh that which they call Delta, so it shapeth a triangle figure between the Alpes and the sea coast, two miles in compasse. A shame it is to runne to the Greekes for to borrow of them the Etymologie and reason of any thing in Italy: howbeit *Metrodorus Scepsius* saith, That forasmuch as about the spring and head of this riuier there grow many pitch trees, called in French Padus, therefore it tooke the name Padus. Also, that in the Ligurian language, the riuier it selfe is called Bodineus, which is as much to say, as bottomelesse. And to approue this reason and argument, there is a towne thereby called Industria, but by an old name Bodincomacum, where in very deed, beginneth the greatest depth thereof.

CHAP. XVII.

¶ Italy beyond Padus, the eleuenth Region.

Next to it, is the region called Transpadana, and the eleuenth in number: all whole in the mid-land part of Italy, into which the seas bring in all things with fruitfull channel. The townes therein, be Vibi Forum, and Segusta. The colonies at the foot of the Alpes, Augusta of the Taurines, an ancient descent from the Ligurians: from whence Padus is nauigable. Then, Augusta Prætoria, of the Salassi, neere vnto the two-fold gullets or passages of the Alpes, to wit, Graia and Peninæ: for men say, that the Carthagineans came through the one, and *Hercules* in at the other, named Graia. There standeth the towne Eporedia, built by the people of Rome, by direction and commandement out of the bookes of *Sibylla*. Now the Gauls in their tongue call good horse-breakers Eporedicæ. Also, Vercella of the Lybici, descended from the Sallij: Nouaria, from the Vertacomacores: which euen at this very day is a village of the Vocontij, and not as *Cato* thinketh, of the Ligurians: of whom, the Leui and Marici built Ticinum, not far from Padus: like as the Boij comming ouer the Alpes, founded Laus Pompeia; and the Insubrians, Millaine. That Comus and Bergomus, yea and Licini-Forum, with other nations thereabout, were of the Orobian race, *Cato* hath reported: but the first beginning and originall of that nation of Orobians, he confesseth that he knoweth not. Which notwithstanding *Cornelius Alexander* sheweth to haue descended from the Greekes; and this he guesseth by the interpretation of their name, which signifieth, Men liuing in mountaines. In this tract, Barra a towne of the Orobians is cleane destroyed; from whence, *Cato* saith, the Bergomates took their beginning; bewraying euen by their name, that they were seated more highly than happily. There are cleane gone and consumed also the Caturiges, banished persons of the Insubrians: likewise Spina, before-named. In like sort, Melpum, a towne of special importance for wealth; which (as *Nepos Cornelius* hath written) was by the Insubrians, Doians, and Senones, rased on that very day, on which *Camillus* forced Veij.

CHAP. XVIII.

¶ Venice, the tenth Region.

Now followeth the tenth region of Italy, Venice, lying fast vpon the Adriaticke sea: the riuier whereof Sillis, commeth forth of the mountaines Taurisani: wherein also is the Towne Altinum, the riuier Liguentia issuing from the mountaines Opitergeni; a haueu of the same name: the colonie Concordia, Riuers and hauens, to wit, Romatinum, Tilauentum, the

the greater and the lesse: Anassum, whereunto Varranus runneth downe: Alsa, Natifo, with Tur- G
rus, running fast by Aquileia, a colony scituate 12 miles from the sea. This is the region of the
Carni, ioyning vnto that of the Iapides: the riuier Timavus, and the castle Pucinum, so famous
for good wine. The vale and Firtu Tergestinus, taking name of the Colonie Tergeste, 23 miles
from Aquileia: beyond which six miles, is the riuier Formio, 189 miles from Rauenna: the an-
cient bound or limit of Italy enlarged: but at this day of Istria, which was so named of the ri-
uer Ister, flowing out of the riuier Danubius into Adria: and ouer against the same Ister, the
gullet or mouth of Padus also entreth thither: by the contrary rushing streames of which two
riuers, the sea between both beginneth to be more milde, as many Authors haue reported, but
vntruly: and *Cornelius Nepos* also, although he dwelt iust by Padus: for there is no riuier that
runneth out of Danubius into the Adriaticke sea. Deceiued (I suppose) they were because the H
ship Argos went downe a riuier into the Adriaticke sea, not far from Tergeste, but what riuier it
was, is yet vnknowne. They that will seeme to be more curious than their fellowes, say, That
it was carried vpon mens shoulders ouer the Alpes: and that it was set into Ister, and so into
Saus, and then Nauportus (which vpon that occasion tooke his name) which ariseth betwene
Æmona and the Alpes.

CHAP. XIX.

¶ Istria.

Istria runneth out like a demie Island. Some haue deliuered in writing, that it is 40 miles I
broad, and 122 miles about. The like they say of Liburnia adioyning vnto it, and of the hol-
low gulfe Flanaticus. But others say, that the compasse of Liburnia is 180 miles. And some
there be againe, who haue set out Iapidia, as far as to the said creeke Flanaticus, behind Istria
130 miles: and so haue made Liburnia in circuit 150 miles. *Tuditanus*, who subdued the Istri-
ans, vpon his owne statue there set this inscription; That from Aquileia to the riuier Titius,
were 200 stadia. The townes in Istria of Romane citizens, be Ægida and Parentium. A Colony
there is besides, Pola, now called Pietas Iulia; built in old time by the Colchians. It is from
Tergeste 100 miles. Soone after, ye see the towne Nesactium, and the riuier Arsia, the vtmost
bound now of Italy. From Ancona to Pola there is a cut ouer the sea of 120 miles. In the mid-
land part of this tenth region, are these Colonies; Cremona, and Brixia, in the Cenomanes K
countrie: but in the Venetians countrie, Ateste. Also the townes, Acelum, Patauium, Opitergi-
um, Belunum, Vicetia: Mantua of the Tuscans is only left beyond Padus. That the Venetians
were the off-spring of the Trojanes, *Cato* hath set downe in writing: also, that the Cenomanes
neere vnto Massiles, dwell in the Volcians countrie. Fertines, Tridentines, and Barennes, are
townes of Rhetia. As for Verona, it is of Rhetians, and Euganeans; but Iulienes be of the Car-
nians. Then follow these, whom we need to vse no curiositie in naming; Alutruenses, Asferi-
ates, Flamonenses, Vannenses, & others surnamed Gulici: Foro Iulienes surnamed Transpa-
dani: Forelani, Venidates, Querqueni, Taurisani, Togienes, Varuani. In this tract there be peri-
shed in the borders, Itaminum, Pellaon, Palsicium. Of the Venetians, Arina, and Cælina: of
the Carnians, Segeste and Ocra: and of the Taurisci, Noreia. Also from Aquileia 12 miles, there L
was a towne quite destroyed by *M. Claudius Marcellus*, euen maugre the Senate, as *L. Piso* hath
recorded. In this region there be also ten notable lakes and riuers, either issuing forth of them
as their children, or else fed and maintained by them, if so be they send them out againe, when
they haue once receiued them: as Larius doth Æna, Verbanus Ticinus, Benacus Mincius, Se-
binus Ossius, Eupilius Lamber, al inhabiting and seated in Padus. The Alpes reach in length
ten miles from the vpper sea to the lower, as *Cælius* saith: *Timogenes*, two and twenty: but *Corne-
lius Nepos* draweth them out in breadth an hundred miles: *T. Linus* saith, three thousand stadia:
both of them take measure in diuers places: for sometime they exceed a hundred miles, where
they disioyne Germany from Italy, and in other parts they are so thin, that they make not full
out threecore and ten miles; and that by the prouidence as it were of Nature. The breadth of M
Italy from Varus vnder the foot of them, through the shallowes or plasches of Sabatia, the
Taurines, Comus, Brixia, Verona, Vicetia, Opitergium, Aquileia, Tergeste, Pola, and Arisia,
maketh feuen hundred and two miles.

CHAP.

CHAP. XX.

¶ Of the Alpes, and Alpine Nations.

Many nations inhabit the Alps, but those of speciall name from Pola to the tract of Ter-
gestis, are these, the Secussis, Subocriues, Catili, Menocaleni: and neere to the Carnians
those who in times past were called Taurisci, but now Norici. Vpon these there do con-
fine the Rhetians and Vindelici, all diuided into many States. Men thinke that the Rheti are
the Tuscans progenie, driuen out by the Gauls, with their leader *Rhatas*. But leauing these
B Rhoetia ns, turning our breast and visage to Italy, wee meet with the Euganean nations of the
Alpes, who inioyed the liberty and franchises of the Latines, and whose townes *Cato* reckoneth
to the number of 34. Of them, the Triumpilines, both people and lands were sold. After them
the Camuni and many such were annexed to the next townships, and did seruice as homagers
to them. The Lepontians and the Salassians, the same *Cato* thinketh to be of the Taurick race.
But all others in manner suppose verily that the Lepontians were a residue left behinde of
Hercules his traine and company, grounding vpon the interpretation of the Greek name, as ha-
uing their bodies seaged with the Alpine snowes as they passed through: that the Graij like-
wise were of the same retinue, planted in the very passage, and inhabiting the Alps Graia: also
that the Euganei were noblest of birth, whereupon they took their name. The head city of them
is Stonos. Of those Rhoetians the Vennonetes and Sarunetes, inhabit neere the heads of the ri-
uer Rhenus. And of the Lepontians, those who are called Viberi, dwell by the Spring of Rhoda-
nus, in the same quarter of the Alps. There be also inhabitants within the Alps, endowed with
the liberty of Latium, namely, the Ootodurense, and their neighbor borderers the Centrones;
as also the Cortian States. The Caturiges, and those from them descended, to wit, the Vagi-
enni, Ligures, and such as be called the Mountainers: and many kindes of the Capillati, con-
fining vpon the Ligurian sea. It seemeth not amisse in this place to set down an inscription out
of a triumphant Trophie erected in the Alps, which runneth in this forme: Vnto the Emperour
Cæsar, son of Augustus of famous memorie, Arch-Bishop, Generall foure times, and inuested in the sa-
cred authoritie of the Tribunes: the Senate and people of Rome. For that by his conduct and happie for-
tune, all the Alpine nations which reached from the vpper sea to the nether, were reduced and brought vnder
D the Empire of the people of Rome. The Alpine nations subdued, are these, Triumpilini, Camuni, Vennon-
etes, Isarci, Breuni, Naunes & Focmales. Of the Vindelici foure nations, to wit, the Constanetes, Virucina-
tes, Licates, and Catenates. The Abisontes, Suanetes, Calucones, Brixentes, and Lepontij. Viberi, Nantuates,
Seduni, Veragri, Salaci, Acitaugones, Medulli, Vceni, Caturiges, Brigiani, Sogionij, Ebrodunij, Nemaioij,
Edenates, Esubiani, Vcamini, Gallia, Triulati, Ectini, Vergunium, Egnituri, Nemeturi, Oratelli, Nerusi-
velauni, Suetri. Now there were not reckoned among these the twelve Cortian States which were not vpon
any hostility, ne yet those which were assigned to the free townes to enioy the burgeoisse of Rome, by vertue
of the law Pompeia. Behold this is that Italy consecrated to the gods, these are her nations, and
these be the townes of her seuerall States. And more than all this, that Italy, which when *L. Æ-
mylius Paulus* and *Caius Atilius Regulus* were Consuls, vpon newes brought of a sudden rising
and tumult of the Gauls, alone by it selfe, without any forrein aids, and euen them, without any
E nations beyond Padus, armed 80000 horsemen and 700000 foot. In plenty of all mettall mines
it giueth place to no land whatsoeuer. But forbidden it is to dig any by an old act of the Senat,
giuing expresse order to make spare of Italy.

CHAP. XXI.

¶ Illyricum.

The Nation of the Liburnians ioyneth vnto Arsia, euen as farre as the riuier Titius. A part
thereof were the Mentores, Hymani, Encheleæ, Dudini, and those whom *Callimachus* na-
meth Pucetia. Now, the whole in generall is called by one name, Illyricum. The names
F of the Nations are few of them either worthy or easie to be spoken. As for the iudiciall court of
Assises at Scordona, the Iapides and foureteene States besides of the Liburians resort vnto. Of
which it grieveth me not to name the Lacinians, Stulpinians, Burnisfes and Albonenses. And
in that Court these Nations following haue the libertie of Italians, to wit, the Alutæ and
Flanates;

Planates, of whom the sea or gulfe beareth the name: Lopfi, Varubarini, and the Affeiates that are exempt from all tributes; also of Islands, the Fulfinates and Curiola. Moreouer, along the borders and maritime coasts, beyond Nefatum, these townes; Aluona, Flauona, Tarfatica, Senia, Lopfica, Orttopula, Vegium, Argyruntum, Corinium, the city Enona, the riuier Pausinus, & Tedanium, at which Lapida doth end. The islands lying in that gulfe, together with the townes, besides those towns aboue noted, Absirtium, Arba, Tragurium, Issa, Pharos beforetime Paros, Crexa, Giffa, Portunata, Again, within the continent, the colony Iaderon, which is from Pola 160 miles. From thence 30 miles off, the island Colentum; and 18, the mouth of the riuier Titius.

CHAP. XXII

¶ Liburnia.

The end of Liburnia and beginning of Dalmatia is Scordona, which frontier towne is 12 miles from the sea, scituate vpon the said riuier Titius. Then followeth the ancient countrie of the Tariores, and the castle Tario, the Promontory Diomedis, or, as some would haue it the demy island Hyllis, taking in circuit a hundred miles: also Tragurium, inhabited by Roman citizens, well knowne for the marble there: Sicum, into which place, *Claudius* late *Cesar*, sent the old souldiers: the Colony Salona, 222 miles from Iadera. There repaire to it for law those that are described into Decuries or richings 382: to wit, Dalmatians 22, Decunum 239, Ditions, 69, and Mezæi 52, Sardiates: in this tract are Burnum, Mandetrium, and Tribulium, castles of name for the battels of the Romanes. There came also forth of the islands the Issæans, Collentines, Separians, and Epetines. Besides them, certaine castles, Piguntia and Rataneum, and Narona a colonie pertaining to the third Countie-court, 72 miles from Salona, lying hard to a riuier of the same name, and 20 miles from the sea. *M. Varro* writeth, that 89 States vsed to repaire thither for justice. Now, these only in a manner be knowne, to wit, Cerauni in 33 Tithings, Daorizi in 17, Destitiaties in 103, Docleates in 34, Deretines in 14, Deremistes in 30, Dindari in 33, Glinditiones in 44, Melcomani in 24, Naresij in 102, Scirtari in 72, Siculote in 24: and the Varda, who sometime waisted and forraied Italy, in 20 decuries and no more. Besides these, there held and possessed this tract Oenei, Partheni, Hemasini, Arthita & Armistæ. From the riuier Naron a hundred miles, is the colony Epidaurum. Townes of Roman citizens be these, Rhizinium, Ascrinium, Butua, Olchinium, which beforetime was called Colchinium, built by the Colchi. The riuier Drilo, and the towne vpon it, Scodra, inhabited by Roman citizens, eighteen miles from the sea.ouer and besides, many other towns of Greece, yea & strong cities, out of all remembrance. For in that tract were the Labeates, Enderudines, Saffæi, Grabæi, and those who properly were called Illyrij, the Taulantij and Pyreæi. The Promontorie Nymphæum in the coast thereof, keepeth still the name: also Lyssum a towne of Romane citizens, a hundred miles from Epidaurum.

C XXIII.

¶ Macedonia.

From Lissum is the prouince of Macedonia: the nations there, be the Partheni, and on their backe side the Dassaretæ. Two mountaines of Candauia 79 miles from Dyrrhachium: but in the borders thereof, Denda, a towne of Roman citizens: also the Colonie Epidamnium, which for that vnlike names sake was by the Romans called Dyrrhachium. The riuier Aous, named of some *Æas*. Apollonia, sometime a Colonie of the Corinthians, scituate within the countrey, seuen miles from the sea, in the marches wherof is the famous Nymphæum. The borderers inhabiting thereby, are the Amantes and Buliones. But in the very edge thereof, the town Oricum built by the Colchi. Then beginneth Epirus, the mountaines Acrocerania, at which we haue bounded this sea of Europe: as for Oricum, it is from Salentinum (a promontorie of Italy) 85 miles.

CHAP. XXIIII

¶ Noricum.

Behind the Carni and Iapides, whereas the great riuier Ister runneth, the Norici ioine to the Rheti. Their townes be Virunum, Celeia, Teurnia, Aguntum, Viana, Emora, Claudia, Flavium,

A vium, Tolvense. Vpon the Norici there lie fast the Lake Peiso, the deserts of the Boij. Howbeit, now by the colonie of the late Emperor *Claudius* of famous memorie, Salaria and the towne Scarabantia Iulia, they be inhabited and peopled.

CHAP. XXV.

¶ Pannonia.

Hence beginneth Pannonia so fruitfull in Maist: whereas the hills of the Alps, waxing more mild and ciuill, turning through the midst of Illyricum from the North to the South, settle lower by an easie descent both on the right hand and the left. That part which regardeth the Adriatick sea, is called Dalmatia, and Illyricum aboue-named. Pannonia bendeth toward the North, and is bounded by the riuier Danubius. In it are these Colonies, *Æmonia*, *Siscia*. And these riuers of speciall name, and nauigable, run into Danubius, Draus with more violence out of the Noricke Alps; and Saus out of the Carnicke Alpes more gently, 115 miles between. As for Draus, it passeth through the Serretes, Serrapilles, Iasians, & Sandrozetes: but Saus through the Colapians and Bruci. And these be the chiefe States of that country. Moreouer, the Ariuates, Azali, Amantes, Belgites, Catari, Corpeates, Aravisci, Hercuniaties, Latovicci, Oferiaties, and Varciani. The mount *Claudius*, in the front whereof are the Scordisci, and vpon the back, the Taurisci. The island in Saus, Metubarris, the biggest of all the riuier islands: Besides, notable good riuers, Calapis running into Saus neere *Siscia*, where with a double channel it maketh the island called *Segestica*: another riuier *Bacuntius*, running likewise into Saus, at the towne *Sirmium*: where is the State of the *Sirmians* and *Amantines*. Fiue & forty miles from thence *Taurunum*, where Saus is intermingled with Danubius. Higher aboue there run into it *Valdanus* and *Vrpanus*, and they ywis be no base and obscure riuers.

CHAP. XXVI.

¶ Mæsia.

Vnto Pannonia ioineeth the Prouince called Mæsia, which extendeth along Danubius vnto Pontus. It beginneth at the confluent aboue-named: in it are the Dardaniens, *Celegeri*, *Triballi*, *Trimachi*, *Mœsi*, *Thranes*, and the *Scythians* bordering vpon Pontus. Faire riuers, out of the Dardaniens countrey, *Margis*, *Pingus*, and *Timachis*. Out of *Rhodope*, *Oëfius*: out of *Hæmus*, *Vtus*, *Essamus*, and *Ieterus*. Illyricum where it is broadest, taketh vp 325 miles: it lieth out in length from the riuier *Arfia* to the riuier *Drinius*, 800 miles. From *Drinium* to the cape *Acroceranium*, 182 miles. *M. Agrippa* hath set downe all the whole sea comprehending Italy and Illyricum, in the compasse of 1300 miles. In it are two smaller seas or gulfs bounded as I haue said: namely, The lower, otherwise called the Ionian, in the fore-part: the inner, called Adriaticum, which also they name the vpper: in the *Aufonian* sea there be no islands worth the speaking, but those aboue-named: in the Ionian sea there are but few, to wit, vpon the *Calabrian* coast before *Brundisium*; by the obiekt site whereof, the haven is made: and against the *Apulian* coast *Dionede*, famous for the tombe and monument of *Diomedes*: another also of that name, called by some *Teutria*. As for the coast of Illyricum, it is pestered with more than a thousand; such is the nature of the sea, full of shelues and washes, with narrow chanelles running between. But before the mouthes of *Timavus*, there be Islands famous for hot waters, which ebbe and flow with the sea: and neere vnto the territorie of the *Istrians*, *Cissa*, *Pullaria*, and those which the Greekes name *Absyrtides*, of *Medæas* brother *Absyrtus* there slaine. Neere vnto them, they called the Islands *Electrides*, wherein is ingendred *Ambre*, which they call *Electrum*, a most assured argument to proue the vanity of the Greekes; for that which of them they meant, was neuer known: against *Iader*, there is *Lissa*; and certain other ouer-against the *Liburnians*, called *Creter*: and as many of the *Liburnians*, *Celadusa*: against *Surium*, there is *Brattia*, commended for neat and goats. *Issa*, inhabited by Roman citizens, and *Pharia* with the towne. Next to these, *Corcyra*, surnamed *Melæna*, with the towne of the *Gnidians*, distant 22 miles asunder: between which and Illyricum, is *Melita*, wherof (as *Callimachus* testifieth) the little dogs *Melitæi* tooke their name: and 12 miles from thence, the three *Elaphites*. In the Ionian sea from *Oricum* 1000 miles, is *Sasonis*, well knowne for the *Pirats* harbor there.



THE FOVRTH BOOKE OF
THE HISTORIE OF NATVRE,
WRITTEN BY C. PLINIVS
SECVNDVS.

From whence first arose all the fabulous lies, and the excellent Learning of the Greekes.

THe third Sea of Europe beginneth at the mountaines *Acroceraunia*, and endeth in *Helle-spont*: it containeth besides nineteene smaller gulfes or creekes, 25 thousand miles. Within it, are *Epirus*, *Acarnania*, *Ætolia*, *Phocis*, *Locris*, *Achaia*, *Messania*, *Laconia*, *Argolis*, *Megaris*, *Attica*, *Bœotia*. And againe from another sea the same *Phocis* and *Locris*, *Doris*, *Phthiotis*, *Thessalia*, *Magnesia*, *Macedonia*, *Thracia*. All the fabulous veine, and learning of Greece, proceeded out of this quarter. And therefore we will therein stay somewhat the longer. The country *Epirus*, generally so called, beginneth at the mountaines *Acroceraunia*. In it, are first the *Chaones*, of whom *Chaonia* taketh the name: then the *Thesprotians*, and *Antigonenses*: the place *Aornus*, and the aire arising out of it so noisome and pestiferous for birds. The *Cestines*, and *Perrhæbians* with their mountaine *Pindus*; the *Castopæi*; the *Dryopes*, *Selli*, *Hellopes*, and *Molossi*, among whom is the temple of *Iupiter Dodonæus*, so famous for the Oracle there: the mountaine *Temarns*, renowned by *Theopompus* for the hundred fountains about the foot thereof.

CHAP. I.

¶ *Epirus.*

Epirus it selfe reaching to *Magnesia* and *Macedonia*, hath behinde it the *Dassaretians* about named, a free nation, but anon the savage people of the *Dardani-ans*. On the left side of the *Dardani-ans*, the *Trebellians* and nations of *Mœsia* lye ranged: afront there ioine vnto them, the *Medi* and *Denthelates*: vpon whom the *Thracians* border, who reach as farre as to *Pontus*. Thus enuironed it is and defended round, partly with the high hill *Rhodope*, and anon also with *Hæmus*. In the vtmost coast of *Epirus* among the *Acroceraunia*, is the castle *Chimæra*, vnder which is the spring of the kings water. The townes are, *Mæandria* and *Cestria*: the riuer of *Thesprotia*, *Thyamis*: the colonie *Buthrotium*: and the gulfes of *Ambracia*, about all others most famous, receiuing at his mouth the wide sea; 39 miles in length, and 15 in breadth. Into it runneth the riuer *Acheron*, flowing out of *Acherusia*, a lake of *Thesprotia* 36 miles from thence: and for the bridge ouer it 1000 foot long, admirable to those that admire and wonder at all things of their owne. In the very gulfes is the towne *Ambracia*. The riuers of the *Molossians*, *Aphas* and *Aractus*. The citie *Anactoria*, and the lake *Pandosia*. The townes of *Acarnania*, called before time *Curetus*, be *Heraclea* and *Echinus*: and in the very entrance and mouth thereof, *Artium* a Colonie of *Augustus*, with the goodly temple of *Apollo*, and the free citie *Nicopolis*. When ye are gone out of the *Ambrecian* gulfes into the *Ionian* sea, yee meet with the *Leucadian* sea coast, and the promontorie of *Leucate*. Then the creeke, and *Leucadia* it selfe, a demie Island, sometime called *Neritis*, but by the labour of the inhabitants thereby, cut quite from the Continent, but annexed to it again by meanes of the winds blowing together heapes of

A of sand, which place is called *Dioryctus*, and is in length almost halfe a mile. A town in it there is called *Leucas*, sometime *Neritum*. Then the cities of the *Acarnanians*, *Halyzea*, *Stratos*, *Argos* surnamed *Amphilochicum*. The riuer *Achelous* running out of *Pindus*, & diuiding *Acarnania* from *Ætolia*, and by continuall bringing in of earth, annexing the island *Artemita* to the firme and maine land.

CHAP. II.

¶ *Ætolia.*

B The *Ætolian* nations, be the *Athamanes*, *Tymphæi*, *Ephiri*, *Ænienfes*, *Perrhœbi*, *Dolopes*, *Maraces* and *Atraces*, from whom the riuer *Atrax* falleth into the *Ionian* sea. The Towne *Calydon* in *Ætolia* is seuen miles and an halfe from the sea, neere to the riuer *Euenus*: then followeth *Macynia* and *Molychria*, behinde which *Chalcis* standeth, and the mountaine *Taphiasus*. But in the very edge and borders thereof, the Promontorie *Antirrhium*, where is the mouth of the *Corinthian* gulfes, not a mile broad where it runneth in, & diuideth the *Ætolians* from *Peloponnesus*. The promontorie that shooteth out against it, is named *Rhion*: but vpon that *Corinthian* gulfes are the townes of *Ætolia*, *Naupaetum* and *Pylene*: but in the mid-land parts, *Pleucon*, *Halyfarna*. The mountaines of name: in *Dodone*, *Tomarus*: in *Ambracia*, *Grania*: in *Acarnania*, *Aracynthus*: in *Ætolia*, *Acanthon*, *Panætolium* and *Macinium*.

CHAP. III.

¶ *Locri.*

C Next to the *Ætolians* are the *Locri*, surnamed *Ozolæ*, free States and exempt: the towne *Oeanthe*: the hauen of *Apollo Phæstus*: the creeke *Crissæus*. Within-forth are these townes *Argyna*, *Eupalia*, *Phæstum*, and *Calamissus*. Beyond them are *Citrhæi*, the plaines of *Phocis*, the towne *Cirra*, the hauen *Chalæon*: from which, seuen miles within the land, is the free citie *Delphi*, vnder the hill *Parnassus*, the most famous place vpon earth for the Oracle of *Apollo*. The fountaine *Castalius*, the riuer *Cephissus* running before *Delphos*, which ariseth in a citie, sometime called *Lilœa*. Moreover, the towne *Crissa* and together with the *Bulenses*, *D Anticyra*, *Naulochem*, *Pyræa*, *Amphissa* an exempt State, *Trichone*, *Tritea*, *Ambrysus*, the region *Drymæa*, named *Daulis*. Then in the inmost nouke of the creeke, the very canton and angle of *Bœotia* is washed by the sea, with these townes *Siphæ* and *Thebæ*, which are surnamed *Corficæ* neere to *Helicon*. The third towne of *Bœotia* from this sea is *Page*, from whence proceedeth and beareth forth the necke or cape of *Peloponnesus*.

CHAP. IV.

¶ *Peloponnesus.*

E *Peloponnesus*, called before time *Apia* and *Pelafgia*, is a demy Island, worthie to come behinde no other land for excellency and name; lying betweene two seas, *Ægeum* and *Ionium*: like vnto the leafe of a plane tree, in regard of the indented creekes and cornered nouks thereof: it beareth a circuit of 563 miles, according to *Isidorus*. The same, if you comprise the creekes and gulfes, addeth almost as much more. The streight where it beginneth to passe on and go forward, is called *Isthmos*. In which place the seas a bouenamed gushing and breaking from diuers waies, to wit, from the North and the East, do deuoure all the breadth of it there: vntill by the contrary running in of so great seas, the sides on both hands being eaten away, and leauing a space of land betweene, fise miles ouer, *Hellas* with a narrow necke doth meet with *Peloponnesus*. The one side thereof is called the *Corinthian* gulfes, the other, the *Saronian*. Lecheum of the one hand, and *Cenchrae* of the other, do bound out and limit the said streights where the ships are to fetch a great compass about with some danger, such vessels I meane as for their bignesse cannot be conueighed ouer vpon wains. For which cause, *Demetrius* the king, *Cæsar* the Dictator, prince *Caius*, and *Domitius Nero*, assaied to cut through the narrow foreland, and make a channell nauigable with ease: but the attempt and enterprife was vnhappy, as appeared by the issue and end of them all. In the midst of this narrow streight which we haue

The fourth Booke of

have called Isthmos, the colonie Corinthus, beforetime called Ephyræ, scituate hard to a little hill, is inhabited, some 60 stadia from both sea sides: which from the top of the high hill and castle there, which is named Acrocorinthus, wherein is the fountaine Pirene, hath a prospect into both those contrarie seas. At this Corinthian gulfe there is a passage or cut by sea from Leucas to Patræ of 87 miles. Patræ a Colonie, built vpon the promontorie of Peloponnesus, that shooteth farthest into the sea, ouer against Ætolia and the riuer Euenus, of lesse distance, as hath bin said, than fise miles in the very gullet and enterance, do send out the Corinthian gulfe 85 miles in length, euen as far as Isthmos.

CHAP. V.

¶ Achaia.

Achaia, the name of a prouince, beginneth at Isthmus, aforetime called it was Ægialos, because of the cities, scituate so orderly vpon the strand. The principal and first there is Lecheæ abouenamed, a port towne of the Corinthians. Next to it Oluros, a castle of the Peleneans. The townes Helice, Bura, and (into which the inhabitants retired themselves, when these beforenamed were drowned in the sea) Sicyon, Ægira, Egion, and Erineos. Within the country was Cleone and Hyfie. Also the hauen Panhormus, & Rhium described before: from which promontorie fise miles off standeth Patræ aboue mentioned, & the place called Phæræ, of 9 hills in Achaia, Scioessa is most knowne, also the Spring Cymothoe. Beyond Patræ is the towne Olenum, the colonie Dymæ. Certain faire places called Buprasium and Hirmene: & the promontorie Araxum. The creeke of Cyllene, the cape Chelonates: from whence to Cyllene is two miles. The castle Phlius. The tract also by Homer named Arethyrea, and afterwards Asopis. Then the country of the Elians, who before were called Epei. As for Elis the city it selfe, it is vp higher in the mid-land parts, 12 miles from Pylos. Within it standeth the Chappell of *Iupiter Olympius*, which for the fame of the games there, containeth the Greekes and Chaldeans account of yeares. Moreover, the town sometime of the Pisæans, before which the riuer Alpheus runneth. But in the borders and coast therof the promontorie Isthys. Vpon the riuer Alpheus, there is passage by water in barges to the townes Aulos and Lepriion. The promontory Plataneus; all these lie Westward. But toward the South, the arme of the sea called Cyparissius, and the city Cyparissa, 72 miles in circuit. The townes vpon it, Pylos, Methone, a place and the forrest called Delos: the promontorie Acritas: the creeke Asineus of the towne Asinum, & Coroneus of Corone; and these are limited with Tenarus the promontorie. There also is the region Messenia with 22 mountains. The riuer Paomifus. But within, Messene it selfe, Ithome, Oechalia, Arene, Pteleon, Thryon, Dorion, Zancum, famous townes all for many occurrents at sundry times. The compass of this arme of the sea is 80 miles, the cut ouer crosse 30 miles. Then from Tenarus, the Laconian land pertaining to a free people, and an arme of the sea there in circuit about 206 miles, but 39 miles ouer. The townes Tenarum, Amicla, Phæræ, Leuctra, and within-forth Sparta, Theranicon: and where stood Cardamyle, Pitane, and Anthane. The place Thyrea, and Gerania. The hill Taygetus: the riuer Eurotas, the creeke Ægylodes, and the towne Psammathus. The gulfe Gytheates, of a towne thereby (Gytheum) from whence to the Island Crete, there is a most direct and sure cut: all these are inclosed within the promontorie Maleum. The arme of the sea next following is called Argolicus, and is 50 miles ouer, and 172 miles about. The towns about it Boea, Epidaurus, Limera, named also Zarax. Cyphanta, the hauen. Riuer, Inachus, Erasinus: betweene which standeth Argos surnamed Hippium vpon the Lake Lerne, from the sea two miles, and nine miles farther Mycenæ also where they say Tyreus stood, and the place Mantinea. Hills, Artemius, Apellantus, Asterion, Parparus, and cleuen others besides. Fountaines, Niobe, Amymon, Psammothoe. From Scylleum to Isthmus 177 miles. Towns, Hermione, Troezen, Coryphasium and Argos, called of some Inachium, of others, Dipsum. The hauen Cenites, the creeke Saronicus, beset round about in old time with woods of Oake, whereupon it had the name, for so old Greece called an Oake. Within it stood the towne Epidaurum, much reformed vnto for the temple of *Æsculapius*, the promontorie Spiræum, the hauens Anthedon, and Bucephalus: and likewise Cenchreæ which we spake of before, being the other limit of Isthmus, together with the chappell of *Neptune*, famous for the games there represented euery fise yeeres. Thus many creekes doth scotch and cut Peloponnesus: thus

many

Plinies Naturall History.

A many seas I say do rore and dash against it. For on the North side the Ionian sea breaketh in: on the West it is beaten vpon with the Sicilian. From the South the Cretian sea driueth against it: Ægeum from the Southeast, and Myrtoum on the Northeast, which beginning at the Megarian gulfe, washeth all Attica.

CHAP. VI.

¶ of Arcadia.

The midland parts thereof, Arcadia most of all taketh vp, being euery way far remote from the sea: at the beginning it was named Drymodis, but soone after Pelasgis. The towns in it be Psophis, Mantinea, Stymphalum, Tegea, Antegonea, Orchomenum, Pheneum, Palatium, Carmon, Parthasæ, Thelphusa, Melanæa, Heræa, Pile, Pellana, Agræ, Epium, Cynætha, Lepreon of Arcadia, Parthenium, Alea, Methydrium, Enepe, Macistum, Lampe, Clitorium, Cleone: betweene which townes is the tract Nemæa, vsually called Berubinadia. Mountains in Arcadia, Pholoe with a towne so named. Item, Hyllene, Lyceus, wherein was the chappell of *Iupiter Lycæus*, Mænalus, Artemisus, Parthenians, Lampeus, and Nonacris: & eight besides of base account. Riuer, Ladon, issuing out of the meeres and fens of Pheneus, Erymanthus out of a mountaine of the same name, running both downe into Alpheus. The rest of the cities to be named in Achæa, Aliphiræi, Abeatæ, Pyrgenses, Pareatæ, Paragenitæ, Tortuni, Typanæi, Thyrasij, Tritentes. All Achæa generally throughout, *Domitius Nero* endowed with freedom. Peloponnesus from the promontorie of Malea to the towne Lechæum vpon the Corinthian gulfe, lyeth in bredth 160 miles: but ouer crosse from Elis to Epidaurum 125 miles: from Olympia to Argos through Arcadia 63 miles. From the same place to Phlius is the said measure. And all throughout, as if Nature made recompence for the irruptions of the seas, it riseth vp in 76 hills.

CHAP. VII.

¶ Greece and Attica.

AT the streights of Isthmus beginneth Hellas, of our countrymen called Græcia: the first tract thereof is Attica, in old time named Acte. It reacheth vnto Isthmus on that part thereof which is called Megaris of the colony Megara, or against Pagæ. These 2 townes as Peloponnesus lieth out in length, are seated on either hand, as it were vpon the shoulders of Hellas. The Pagæans, and more than so, the Ægostheniensis lie annexed to the Magarensians, and owe seruice to them. In the coast thereof is the hauen Schœnus. Townes, Sidus, Cremyon, Scironia rocks for three miles long, Geranea, Megara, and Eleusin. There were besides, Oenoe and Probalinthus, which now are not to be seen, 52 myles from Isthmus. Pyræus and Phalera, two hauens ioined to Athens by a wall, within the land fise miles. A free citie this is, and needeth no more any mans praise: so noble and famous it is otherwise, beyond all measure. In Attica be these fountaines, Cephisia, Larine, Callirrhoe, and Enneacreunos. Mountains, Brilessus, Megalæus, Icarus, Hymettus, & Lyræbetus: also the riuer Ilissos. From Pyræum 42 miles off, is the promontorie Sunium, likewise the promontorie Doriscum. Also Potamos and Brauron: townes in times past. The village Rhamnus, and the place Marathon, the plain Thriaftius, the town Melita and Oropus, in the confines or marches of Bœotia. Vnto which belong Anthedon, Onchestos, Thespre a free town Lebadea: and Thebes surnamed Bœotia, not inferior in fame and renown to Athens, as being the native country, & as men would haue it, of two gods, *Liber* and *Hercules*. Also they attribute the birth of the Muses in the wood Helicon. To this Thebes, is assigned the forest Cithæron, and the riuer Ismenus. Moreover fountaines in Bœotia, Oedipodium, Psammate, Dirce, Epigranea, Arethusa, Hippocrene, Aganippe, and Gargaphia. Mountaine Megara & Thebes, Eleuthera, Haliartus, Plateæ, Phæræ, Aspledon, Hyle, Thisbe, Erythra, Glifas, and Copæ. Neere to the riuer Cephisus, Lamia, and Anichia: Medeon, Phligone, Grephis, Coronæa, Chæronia. But in the outward borders, beneath Thebes, Ocale, Elæon, Scolos, Scœnos, Pteleon, Hyrie, Mycaleffus, Hyresleon, Olyros, Tanagia, a free State; and in

H 2

the

the very mouth of Euripus, which the Island Eubœa maketh by the opposite site thereof, Aulis, so renowned for the large haven that it hath. The Boeotians in old time were named Hyantes. The Locrians also are named withall Epiclemidij, in times past Letegetes, through whom the river Cephissus runneth into the sea. Townes, Opus (whereof commeth the gulfic Opuntinus) and Cynus. Vpon the sea coast of Phocis, one & no more, to wit Daphnus. Within forth among the Locrians, Elatea, and vpon the bank of Cephissus (as we haue said) Lilea: & toward Delphos, Cnenuis and Hiampolis: again, the marches of Locri, wherein stand Larymna and Thronium, neere vnto which the river Boagrius falleth into the sea. Townes, Narycion, Alope, Scarphia: after this, the vale called of the people there dwelling, Maliacus Sinus, wherein bee these townes, Halcyone, Econia, and Phalara. Then Doris, wherein are Sperchios, Erincon, Boion, Pindus, Cytinum. On the back-side of Doris is the mountain Oeta. Then followeth Æmonia that so often hath changed name. For one and the same hath bin called Pelasgicum, Argos, and Hellas, Thessalia also, and Dryopis, and euermore tooke name of the kings. In it was borne a king called *Græcus*, of whom Greece bare the name: there also was *Hellen* borne, from whence came the Hellenes. These being but one people, *Homer* hath giuen three names vnto, that is to say, Myrmidones, Hellenes, and Achæi. Of these, they be called Phthioræ who inhabit Doris. Their townes be Echinus, in the very gullet & entrance of the river Sperchius: and the streights of Thermopylæ, so named by reason of the waters: and foure miles from thence Heraclea, was called Trachin. There is the hill Callidromus: and the famous townes, Hellas, Halos, Lamia, Phthia, and Arne.

CHAP. VIII.

¶ Thessalie.

Moreover in Thessalie, Orchomenus, called before-time Minyeus, and the towne Almon, or after some Elmon, Atrax, Pelinna, and the fountaine Hyperia. Townes, Phææ, behind which Pierius stretcheth forth to Macedonie: Larissa, Gomphi, Thebes of Thessalie, the wood Pteleon, and the creeke Pagasicus. The towne Pagasa, the same named afterwards Demetrias; Tricca, the Pharsalian plains with a free city; Cranon and Ileria. Mountains of Phthiotis, Nymphæus, most faire and sightly for the naturall arbors and garden workes there: Buzigæus, Donacefa, Bermius, Daphissia, Chimerion, Athamas, Stephane. In Thessaly there be 34, whereof the most famous are, Cerceti, Olympus, Pierus, Ossa: iust against which, is Pyndus and Othrys, the seat and habitation of the Lapithæ; and those lie toward the West: but Eastward, Pelios, all of them bending in manner of a theatre: and before them stand ranged wedge-wise, 72 cities, Rivers of Thessalie, Apidanus, Eboenix, Enipeus, Onochomus, Pamilus: the fountain Messeis, the people Boeæis: and about all the rest the most famous river Peneus, which arising neere Gomphi, runneth for 500 stadia in a wooddiedale between Ossa and Olympus, and halfe that way is nauigable. In this course of his, are the places called Tempe, 5 miles in length, and almost an acre and a halfe broad, where on both hands the hills arise by a gentle ascent about the reach of mans sight. Within forth glideth Peneus by, in a fresh green groue, cleare as chrystall glasse ouer the grauelly stones, pleasant to behold for the grasse vpon the banks, and resounding again with the melodious consent of the birds. It taketh in the river Eurotus, but entertaineth him not, but as he floweth ouer the top of him like oile (as *Homer* saith:) within a while after that he hath carried him a small way, letteth him goe againe and rejecteth him, as refusing to mingle with his owne siluer streams, those pœnall and cursed waters engendred for the infernall Furies of hell.

CHAP. IX.

¶ Magnesia.

To Thessaly, Magnesia is annexed: the fountaine there is Libethra. The townes, Iolchos, Hirmenium, Pyrrha, Methone, Olizon. The promontorie Sepias. Townes moreover, Cassana, Sphalatra, and the promontory Ænantium. Towns besides, Melibœa, Rhifus, Erymne. The mouth of Peneus. Towns, Homolium, Orthe, Thepieæ, Phalanna, Thaumacie, Gyrton, Cranon, Acarne, Dorion, Melitæa, Phylace, Potinæ. The length of Epirus, Achaia, Attica and Thessalie, lying straight out, is by report 480 miles; the bredth 187.

CHAP.

CHAP. X.

¶ Macedonie.

Macedonie, so called afterwards (for before-time it was named Emathia) is a kingdom consisting of 150 feuerall States, renowned for two kings aboue the rest, and ennobled sometime for the Monarchie and Empire of the world. This cuntry lying farre in behind Magnesia and Thessaly toward the nations of Epirus Westward, is much troubled and infested with the Dardaniens. The North parts therof are defended by Pæonia and Pelagonia, against the Triballi. The townes be these, Ageæ, wherein the maner was to intere their kings: Berœa, and Æginium, in that quarter which of the Wood is called Pieria. In the outward borders Heraclea, and the river Apilas: more townes, Phina, and Oloros: the river Haliacmon. Within forth are the Haloritæ, the Vallei, Phylacei, Cyrestæ, Tyrrissæi: Pella the Colonie: the town Stobi of Romane citizens. Anon, Antigonis, Europus vpon the river Axios, and another of the same name through which Rhædias runneth: Heordeæ, Scydra, Mieza, Gordiniæ. Soone after in the borders, Ichna, and the river Axios. To this bound the Dardani: Treres, and Pieres border vpon Macedony. From this river, are the nations of Pæonia, Parorei, Heordenfes, Almopij, Pelagones, and Mygdones. The mountaines Rhodope, Scopius, and Orbelus. The rest is a plaine cuntry, wherein Nature seemes to set out her riches, in the lap whereof are the Arethusif, Antiochieses, Idomeneses, Doberienfes, Triensfes, Allantensfes, Andaristensfes, Moryllij, Garefci, Lyncestæ, Othrinei, and the free states of the Amantines and Orestæ. Colonies, Bulledenfis & Dienfis. Xilopolitæ, Scotuffæi free, Heraclea, Sintica, Timpei, and Coronei. In the coast of the Macedonian sea, the towne Calastra, and within forth, Phileros, and Lete: and in the middle bending of the coast, Thessalonica, of free estate and condition. To it from Dyrrachium, it is 114 miles, Therma. Vpon the gulfic Thermaicus, be these townes, Dicæa, Pydna, Derrha, Scione: the promontory Canastæum. Townes, Pallene, Pherga. In which region these mountaines, Hypsizorus, Epitus, Alchione, Leuomne. Townes, Nissos, Brygion, Eleon, Mendæ, and in the Isthmos of Pallene, the Colonie sometime called Potidæa, and now Cassandria, Anthemus, Holophyxus the creeke, and Mecyberna. Townes, Phiscella, Ampelos, Torone, and Singos: the Frith (where *Xerxes* king of the Persians cut the hill Athos from the Continent) in length a mile and a halfe. The mountaine it selfe shooreth out from the plaine into the sea, 75 miles. The compass of the foot thereof takes 150 miles. A towne there was in the pitch of it, Acroton. Now there be Vranopolis, Palæotrium, Thyssus, Cleone, Apollonia, the inhabitants whereof be named Macrobij. The towne Cassera, and a second gullet or creeke of the Isthmus, Acanthus, Stagira, Sitone, Heraclea, and the region lying vnder Mygdonia, wherein are seated farre out from the sea, Apollonia and Arethusa, Againe in the coast, Possidium, and a creeke with the towne Cermorus: Amphipolis a free state, and the people Bisaltæ. Then the river Strimon, which is the bound of Macedonie, which springeth in Hæmus: of which, this is worthy to be remembered, that it runneth into seuen lakes before it keepeth a direct course. This is that Macedonie, which sometime conquered the dominion ouer all the earth: this ouer-ran Asia, Armenia, Iberia, Albania, Cappadocia, Syria and Ægypt; yea and passed ouer Taurus and Caucasus: this ruled ouer the Bactrians, Medians, and Persians, and possessed all the East: this hauing the conquest of India, ranged after the tracts of Father *Liber* and *Hercules*. This is the very same Macedonie, of which in one day *Paulus Æmilius* our Generall, sacked and sold 72 cities. See the difference of fortune in two men.

CHAP. XI.

¶ Thracia.

Now followeth Thracia, among the most valiant nations of Europe, diuided into 52 regiments of souldiers. Of those States in it, the Densetes and Medi, whom it grieues me not to name, doe inhabit neere to the river Strymon on the right side, as farre as to the Bisaltæ aboue-named: on the left, the Digeri, and many townes of the Bessi, euen to the river Nestus, which inuironeth the bottome of the hill Pangæus, between the Eleti, Diobesi, and Carbilesi, and so forward to the Bryse and Capæi. Odomanta a towne of the Odrysians, sendeth

H 3

deth out the riuer Hebrus to the neighbour-borderers, the Caribiles, Pyrogeris, Drugeris, Cæ-
nicks, Hypsalts, Beni, Corpilli, Botiæ, and Edons. In the same tract the Sella, Priatæ, Di-
loncæ, Thyni, Celatæ, the greater vnder Hæmus, the lesse vnder Rhodope: between whom, run-
neth the riuer Hebrus. The towne scituate beneath Rhodope, was before-time named Ponero-
polis; soone after by the founder, Philippopolis: but now of the site thereof Trimontium. The
ascent of Hæmus vp to the top, taketh six miles: the backe-side and hanging thereof downe to
Ister, the Mœsians, Getes, Aoti, Gaudæ, and Clatiæ; and vnder them the Arræi, Sarmata whom
they call Arcatæ, and Scythians: and about the sea coast of Pontus, the Morisenes and Sitho-
nians, from whom the Poet *Orpheus* descended, doe inhabit. Thus Ister boundeth it on the
North: in the East, Pontus and Propontus: Southward, the sea *Ægæum*, in the coast whereof
from Strimon, stand Apollonia, Oestima, Neapolis, and Polis. Within-forth, the Colonie of
Philipp, and 325 miles from *Dyrhachium*, *Scotusa*, *Topiris*, and the mouth of the riuer *Nestus*.
The hill *Pangæus*, *Heraclea*, *Olynthos*, *Abdera* a free citie, the meere and nation of the *Bisfons*.
There, stood the town *Tinda*, terrible for the horses of *Diomedes* that stabled there. Now at this
day, *Diceæ*, *Ismaron*, the place *Parthenion*, *Phalesina*, *Maronea* called *Ortagurea* before-time.
The mountaine *Serrium* and *Zone*: then, the plaine *Doriscus* able to receiue * 10000 men: for
so *Xerxes* took a iust account of his armie and numbred it. The mouth of Hebrus: the haue of
Stentor: the free towne *Ænea*, together with the tombe of *Polydorus*, the region sometime of
the *Cicones*. From *Doriscus*, the coast bendeth crookedly to *Macron-Tichos*, for 122 miles.
About which place the riuer *Melas*, whereof the creeke beareth name. Townes, *Cypsellæ*, *Bi-*
santhe, and that which is called *Macron-Tichos*, what way as stretching forth the walls along
from *Propontis* to the Creeke *Melanes* betweene two seas, it excludes *Chersonesus* as it run-
neth out. For, *Thracia* of one side beginning at the sea coast of *Pontus*, where the riuer Ister is
discharged & swallowed vp, hath in that quarter passing faire and beautifull cities, to wit, *Istro-*
polis of the *Milesians*, *Tom*, and *Calatis* which before was called *Acernetis*. It had sometime
Heraclea and *Bizon*, which sunke and was lost in a gaping chinke of the earth, but now in stead
thereof *Dionysopolis*, called before *Crunos*. The riuer *Ziras* runneth hard by it. All that tract,
the *Scythians* named besides *Arotetes*, possessed. There townes were, *Aphrodisius*, *Libistos*,
Zigere, *Borcobe*, *Eumenia*, *Parthenopolis*, *Gerania*, where it is reported that the nation of the
Pygmies kept, whom the barbarous people call *Catizi*, and they are of beliefe that they were
chased away and put to flight by cranes. In the edge thereof next to *Dionysopolis*, there is *O-*
desius of the *Milesians*, the riuer *Pomiscus*, the towne *Tetranaulocos*: the mountaine *Hæmus*
bearing forth with a huge top into *Pontus* had in the pitch thereof the towne *Aristæum*. Now
in the coast is *Mesembria* and *Anchialum*, where *Messæ* was. The region *Asice*. There was the
towne *Anthium*, now there is *Apollonia*. The riuers *Panissa*, *Rira*, *Tearus*, *Orofines*. Townes,
Thynnias, *Almedeffos*, *Deuelton* with the poole which now is called *Deultum*, belonging to
the old souldiers. *Phinopolis*, neere vnto which is *Bosphorus*. From the mouth of Ister to the
entrance of *Pontus*, some haue made it 555 miles. *Agrippa* hath set to 40 miles more. And from
thence to the wall aboue-named 150: and so from it to *Chersonesus* 126. But neere to *Bospho-*
rus is the arme of the sea *Gasthenes*. The haue furnished of old men, and another likewise of
women. The promontory *Chryfoceras*, whereupon standeth the town *Bizantium* of free estate,
called before-time *Lygos*. From *Dyrhachium* it is 711 miles. Thus much lies out the main in
length: between the *Adriaticke* sea and *Propontis*. Riuers, *Bathynias*, *Pydaras*, or *Atryas*. Towns,
Selymbria, *Perinthus*, annexed to the Continent 200 paces broad. Within-forth, *Byzia*, the
castle of *Thracian* kings, hated of *Swallowes*, vpon the horrible and cursed fast of *Terem*. The
region *Camica*: the colonie *Flauropolus*, where before-time the town was called *Zela*. And 50
miles from *Byria* the Colony *Apros*, which is from *Philippi* 188 miles. But in the borders, the
riuer *Erginus*, where was the town *Gonos*. And there you leaue the citie *Lysimachia*, also now
in *Chersonesus*. For another land passage or *Isthmus* there is of like streightnes, al one in name,
and of equall breadth with that of *Corinth*. Likewise on both sides two cities do beautifie and
set out the stronds, which they take vp not vnlike to the other, to wit, *Paclia* from *Propontis*
and *Cardia* from the gulf *Melane*: as for this, it taketh the name of the forme and proportion
of the place made like a heart: and both, afterwards, where inclosed within *Lysimachia* 3 miles
from the * long walls aboue said. *Chersonesus* from *Propontis* side, had *Tiristafis* & *Crithotes*,
also *Cissa* fast vpon the riuer *Ægos*: now it hath from the colony *Apros* 32 miles *Refistos*, ouer-
against

* *Macron*
Tichos

A against the colony *Pariana*. And *Hellespontus*, diuiding Europe from Asia, seuen stadia asun-
der (as we haue said) hath foure cities there opposite one against another, to wit, in Europe,
Calippolis and *Sestos*; in Asia, *Lampiscum* and *Abydos*. Then, is the promontory of *Cher-*
onesus *Mastisia*, iust contrary to *Sigeum*, in the crooked front whereof is *Cynossema*: for so is
Hecubaes tombe named, the very rode of the Athenians nauie. The towne and chappell of *Pro-*
silans: and in the very utmost forefront of *Cherronesus*, which is called *Æolium*, the towne
Elæus. After it, as a man goeth to the gulf *Melane*, the hauens *Cælos*, *Panhormus*, and the a-
boue-named *Cardia*. The third sea of Europe, is in this manner bounded and limited. Moun-
taines of *Thracia* ouer and about those afore rehearsed, *Edonus*, *Gigemorus*, *Meritus*, and *Me-*
lamphyllon. Riuers falling into Hebrus; be *Bargus*, and *Suenus*. The length of *Macedonie*,
Thracia and *Hellespontus*, is set downe before. Some make it seuen hundred and twenty miles.
B The breadth is three hundred and eighty miles: The sea *Ægium* tooke that name of a rocke,
betwene *Tenedos* and *Chios*, more truly than of an Island named *Aex*, resembling a goat, and
therefore so called of the Greekes; which all at once appeareth to rise out of the mids of the
sea. The sea-men that saile from out of *Achaia* to *Andros*, discover it on the right hand, and to
them it prelageth some dreadfull and mischieuous accident. Part of the *Ægean* sea is laid to
the *Myrtum*, and so called it is of a little Island, which sheweth it selfe to them that set saile
from *Gereus* to *Macedonie*, not farre from *Charistos* in *Eubœa*. The Romanes comprehend
all these seas in two names: namely, *Macedonicum*, all that which toucheth *Macedonia* and
Thracia: and *Græcienum* where it beateth vpon Greece. As for the Greekes, they diuide euen
C the *Ionian* sea into *Siculum* and *Creticum*, of the Islands. Also *Icarius* they call that between
Samos and *Mycione*. All the other names are giuen by gulfs and creekes, whereof we haue
spoken. And thus much verily as touching the seas and nations contained in this manner with-
in the third section or gulf of Europe.

CHAP. XII.

¶ The Islands betwene those lands, among which, *Creta*, *Eubœa*, *Cyclades*,
and *Sporades*: also of *Hellespont*, *Pontus*, *Mæotis*, *Da-*
cia, *Sarmatia* and *Scythia*.

D Islands ouer against *Threspotia*, *Corcyra*: 12 miles from *Buthrotus*, and the same from the
cliffes *Acrocerania* 50 miles, with a citie of the same name. *Corcyra* of free condition, also
the towne *Cassiope*, and the temple of *Iupiter Cassiopeus*: it lieth out in length 97 miles. *Homer*
called it *Scheria* and *Phæacia*: *Callimachus* also, *Drepane*. About it are some others: but bend-
ing toward Italy, *Thoronos*: and toward *Leucadia* the two *Paxæ*, siue miles diuided from
Corcyra. And not farre from them before *Corcyra*, *Ericusa*, *Marate*, *Elaphusa*, *Malthace*, *Tra-*
chia, *Pytionia*, *Ptychia*, *Tarachie*. And from *Pholachrum* a promontory of *Corcyra*, the rocke
into which their goeth a tale, that the ship of *Ulysses* was turned, for the resemblance it hath of
such a thing. Before *Leucadia*, *Sybota*. But between it & *Achaia* there be very many: of which
Teleboides the same that *Taphiæ*: but of the inhabitants before *Leucadia*, they be called *Ta-*
phias, *Oxie*, and *Prinocssa*: and before *Ætolia*, the *Echinades*, *Ægialia*, *Cotonis*, *Thyatira*, *Geo-*
aris, *Dionysia*, *Cyrnus*, *Chalcis*, *Pinara* & *Myrtus*. Before them in the deep sea, *Cephalenia* and
Zacynthus, both free states: *Ithaca*, *Dulichium*, *Same*, *Crocylea*, and *Paxos*. *Cephalenia* some-
time called *Melæna*, is 11 miles off, and 44 miles about. As for *Same*, it was destroyed by the
Romanes: howbeit, still it hath three townes: between it and *Achaia* is *Zacynthus* with a town,
a stately Island, & passing fertile. In times past it was called *Hyrie*, and is 22 miles distant from
the South coast of *Cephalenia*. The famous hill *Elatus* is there. The Isle it self is in circuit 25
miles. Twelue miles from it is *Ithaca*, wherein stands the mountain *Neritus*. And in the whole
it takes vp the compasse of 25 miles. From it 12 miles off is *Araxum* a cape of *Peloponnesus*.
Before this Island in the main sea there appeare *Asteris* and *Prote*. Before *Zacynthus* 35 miles
full East, are the two *Strophades*, called by others *Plotæ*: and before *Cephalenia*, *Letoia*. Be-
fore *Pylos* three *Sphagiæ*, and as many before *Messene*, called, *Oenussæ*. In the gulf *Asinæus*
three *Thyrides*: in the *Laconian* gulf, *Teganusa*, *Cothon*, *Cythera* with the towne, named be-
foretime *Porphyris*. This lies siue miles from the promontorie *Malea*, dangerous for ships to
come about it, by reason of the streights there. in the *Argolick* sea are *Pityusa*, *Irine* & *Ephyre*
and

and against the territory Hermonium, Typareus, Epiropia, Colonis, Aristera: ouer against G Troezenium Calauria, halfe a mile from Platea: also, Belbina, Lacia and Baucidias. Against Epidaurus, Cecryphalos, and Pytioneos, six miles from the Continent. Next to it is Ægina a free state, 17 miles off, and for 20 miles they saile by it. The same is distant from Pyraeum the port of the Athenians, 12 miles, and beforetime was vually called Oenone. Against the promontory Spiraum, there lie onposite Eleusa, Dendros, two Craugia, two Cæcia, Selachusa, Cenchreis and Alpis. Also in the Megarian gulfe, there be foure Methurides. As for Ægilia, it is 15 miles from Cythera, and the same is from Phalaferna a towne in Crete 25 miles. And Crete it selfe, lying of one side to the South, and the other to the North, stretcheth forth in length East and West; a famous and noble Island for a hundred cities in it. *Dofades* saith it tooke that name of the nymph *Creta* daughter of *Hesperis*: but according to *Anaximander*, of a king of the Curetes. *Philistides*, *Mallotes*, *Crates*, haue thought it was called first Æria, and afterwards Curetis: and some haue thought it was named Macaros for the blessed temperature of the aire. In bredth it exceedeth in no place 50 miles, and in the middle part broadest it is: but in length it is full 270 miles: in circuit 589 miles: and winding it selfe into the Creticke sea, so called of it, where it stretcheth out farthest Eastward, it puts forth of it the promontory Sammonium iust against Rhodos, and Westward Criu-Metopon, toward Cyrenæ. The principall townes of marke, be Phalaferne, Elæa, Cyfamum, Pergamum, Cydon, Minoum, Apteron, Pantomatium, Amphyamalla, Rhythimna, Panhormum, Cyreum, Apollonia, Matium, Heraclea, Miletos, Ampelos, Hyera-pytina, Lebena, Hierapolis. And in the midland parts, Cortyna, Phæsum, Gnostus, Potyrithenium, Myrina, Lycastus, Rhamnus, Lyctus, Diu, Asum, Pyloros, Rhytion, Clatos, Phæa. Holopyxos, Lasos, Eleutherna, Therapne, Marathusa, Mytinios. And other townes about the number of 60, stand yet vpon record. The hills be Cadiscus, Idæus, Dictæus, and Morycus. The Isle it selfe, from the promontory in it called Criu-Metopon, as *Agrippa* reports, is distant from Phycus, a promontory of the Cyrene 225 miles. Likewise from Cape-seum point, it is from Malea in Peloponnesus 80 miles. From the Island Carpathus, which lies Westward from the cape Sammonia, 60 miles. This Island aforesaid lyeth between it and Rhodos. The rest about it be these: before Peloponnesus two Coricæ, and as many Mylæ: and on the North side, when a man hath Crete on the right hand, there appeares Leuce iust against Cydonia, together with the two Budora, against Matium, Cia: against the promontory Itanum Onisa and Leuce: against Hierapytna, Chrysa, and Caudos. In the same coast are Ophiussa, Buxoa, and Rhamnus: and when men haue fetched about and doubled the point Criu-Metopon, K appeare the Isles called Musagores. Before the promontory Sammonium, Phocæ, Platia, Sirdides, Naulochos, Armodon and Zephire. But in Hellas, yet still in Ægium, Lichades, Scarphia, Marefa, Phocaria, and very many more ouer against Attica, but townesse, and therefore obscure and of no reckoning: but against Eleusin, the noble Salamis, and before it Psytalia: and from Sunium, Helene fise miles off: and Ceos from thence as many, which our countymen haue named Crea: but the Greekes Hydrussa, cut off and dismembred from Eubœa. In times past it was 500 stadia long: but soone after, foure parts almost, namely those that butted vpon Bœotia, eaten vp by the same sea: so as now the towns remaining that it hath, be Iulis and Carthæa. For Coreffus and Pæcessa are perished & gone. From hence as *Varro* saith, came the fine linnen cloath that women vse: yea, and Eubœa it selfe hath been plucked from Bœotia, and di- L uided with so little an arme running betweene, that a dridge ioieth the one to the other: euident it is to the eie, and well seen, by reason of two promontories in the South side, to wit, Genestum, bending toward Attica, and Capharens to Hellefontus: and one vpon the North side, to wit, Cæneus. In no part thereof doth it extend broader than 40 miles: and no where doth it gather in narrower than 20. But in length from Attica as far as Thessalie, it lies along Bœotia 150 miles: and containeth in circuit 365. From Hellefont, on Caphareus side, it is 225 miles. In times past renowned it was for these cities, Pyrrha, Porthmos, Nesos, Cerinthus, Oreum, Diu, Ædepsum, Ocha, Oechalia, now Chalcis, ouer against which stands Aulis in the main: but now, for Gereftum, Eretria, Carystus, Oritanum, Artemisium, the fountain Arethusa, the riuer Lelantum, the hot waters called Heliopia, it is of great name: but yet in more request for the marble of Carystus. In former time it was called commonly Chalchodontis or Macris, as *Dionysius* and *Ephorus* doe say: but Macra, according to *Aristides*: and as *Callidemus* would haue it, Chalcis, for the brasse there first found: and as *Menæmus* saith, Abantias: and last of all Afo- pis,

A pis, as the Poets commonly name it. Without in the Myrtoum sea be many Isles, but of grea- test marke be Glauconensis and Ægilia: and neere to the promontory Gereftum about Delos certain lying round together, whereupon they tooke their name Cyclades. The first and chiefe of them, Andrus with a towne, is from Gereftum 10 miles, and from Ceum 39. *Myrsilus* saith it was called Cauros, and afterwards Antandros. *Callimachus* nameth it Lafia: others Nonagria, Hydrussa and Epagris: it takes in compasse 93 miles. A mile from the same Andros, and 15 from Delos, lieth Tenos, with a town fifteen miles in length: which for the plenty of water *Aristotle* saith was called Hydrussa, but others name it Ophiussa. The rest be these, Myconos with the hill Dimastus, 15 miles from Delos. Scyros Syphnus, before-time named Heropia and Acis, in circuit 28 miles about: Seriphus 12 miles, Præpesinthus, Cythnus, and Delos it selfe, of all others most excellent by far, as being the midst of all the Cyclades, much frequen- B ted for the temple of *Apollo*, and for merchandise and trafique. Which hauing a long time floated vp and downe, as it is reported, was the only Island that neuer felt earthquake vnto the time of *M. Varro*. *Mutianus* hath recorded that it was twice shaken. *Aristotle* giueth a reason of the name in this sort, because it was discovered and appeared on a sudden. *Æglosthenes* termeth it Cynthia: others Ortygia, Asteria, Lagia, Chlamydia, Cynethus, and Pyrpile, for that in it fire was first found out. It is but 5 miles about, and riseth vp by the ascent of the hill Cinthus. Next it is Rhene, which *Anticlidus* called Celadussa, and *Helladius* Artemite. Moreover, Syros, which antient writers haue said to be in circuit 26 miles, and Mutians 160. Oliaros, Paros, with a towne, 18 miles from Delos, of great name for the white marble there, which at first men called Paëtia, but afterwards Minois. From it feuen miles and a halfe is Naxos (18 miles from De- C los) with a towne which they called Strongyle, afterwards Dia, within a while Dionysias, of the plentifull vines, and others, Sicily the lesse, and Callipolis. It reacheth in circuit 75 miles, and is halfe as long again as Paros. And thus far verily they obserue & note for the Cyclades; the rest that follow for the Sporades. And these they be, Helenum, Phocussa, Phæcassa, Schinussa, Phalegandros, and 17 miles from Naxos, Icaros: which gaue name to the sea, lying out as far in length with two townes, for the third is lost: before-time it was called Dolichum, Macris, and Ichtyoessa. It is scituate Northeast from Delos 50 miles: and from Samos it is distant 35 miles. Between Eubœa and Andros there is a frith 12 miles ouer. From it to Gereftum is 112 miles and a halfe: and then no order forward can be kept: the rest therefore shall be set D downe huddle by heapes. Ios from Naxos 24 miles, venerable for the sepulchre of *Homer*: it is in length 25 miles, and in former time called Phænice. Odia, Letandros, Gyaros with a town, 12 miles about. It is from Aneros 62 miles. From thence to Symus 80 miles. Cynethussa, Te- los, famous for costly ointment. *Callimachus* calls it Agathussa. Donyfa, Pathmos, in circuit 30 miles. Corasæ, Lebinthus, Leros, Cynara, Sycinus, which before-time was Oenæ, Heratia the same that Onus, Casus otherwise Astrabe, Cimolus, alias Echinussa, Delos with a towne, which *Aristides* nameth Byblis, *Aristotle* Zephyria, *Callimachus* Himallis, *Heracclides* Syphnus and Aey- tos, and this of all the Islands is the roundest. After it Machia, Hypere sometime Patage, or after some Platage, now Amorgos, Potyrgos, Phyle, Thera; when it first appeared it was called Calliste. From it afterwards was Thersia plucked: and between those twain soone after arose E Automate, the same that Hieria: and Thia, which in our daies appeared new out of the water neere Hieria. Ios is from Thera 25 miles. Then follow Lea, Ascania, Anaphe, Hippuris, Hip- purissusa. A stipalæa, of free estate, in compasse 88 miles: it is from Cadiscus a promontory of Creta, 125 miles. From it is Platea, distant 60 miles. And from thence Camina, 38 miles: then Azibnitha, Lanise, Tragia, Pharmacusa, Techidia, Chalcia, Calydna, in which are the townes Coos and Olymna. From which to Carpathus, which gaue the name to the Carpathian sea is 25 miles, and so to Rhodos with a Southerne winde. From Carpathus to Casos 7 miles: from Casos to Samonium a promontorie of Crete, 30 miles. Moreover, in the Euboike Euripe, at the first entrance wel-neere of it are the foure Islands Petalæ, and at the end thereof, Atalanre, Cyclades, and Sporades: confined and enclosed on the East with the Icarian sea coasts of Æ- F sia: on the West with the Myrtoum coasts of Attica. Northward with the Ægean sea: and South with the Creticke and Carthaginian seas; and take vp in length two hundred myles. The gulfe Pegasicus hath before it, Eutychia, Cicynethus, and Scyros aboue said: but the utmost of all the Cyclades and Sporades, Gerontia, Scadira, Thermeusis, Irihesia, Solinia, Eudemia, Nea, which is consecrate vnto *Minerva*. Athos before it hath foure, Peparus thus

thus with a town fomtime called Euonos, 9 miles off, Scyathus 5 miles, and Iulios with a town 88 miles off. The same is from Mastusia in Corinthos 75 miles, & is it self in circuit 72 miles. Watered it is with the river Ilissus, from thence to Lemnos 22, and is from Athos 87, in compass it containeth 22 miles and a halfe. Townes it hath, Hephæstia and Marina, into the Market place wherof the mountain Athos casteth a shadow in the hottest season of sommer. Thasos a free State is from it five miles: in times past it was called Aëria or Æthria. From thence Abdera in the continent is 20 miles: Athos 62: the Isle Samo-Thrace as much, being a free priuiledged state, and lying before Hebrus. From Imbrus 32 miles: from Lemnus 22 miles and a halfe: from the coast of Thracia 28 miles: in circuit it is 32 miles, and hath the rising of the hill Saoces for the space of ten miles, and of all the rest is fullest of hauens and harbors. *Callimachus* calleth it by the old name Dardania. Betwixt Cherrhonesus and Samo-Thrace is Halomessus, about 15 miles from either of them: beyond lieth Gethrone, Lamponia, Alopeconesus not farre from Ccelos, an hauen of Cherrhonesus: and some other of no name or regard. In this sea let vs rehearse also the desert and vnpeopled Isles, such as we can finde names for, to wit, Desticos, Larnos, Cyslicos, Carbrusa, Celathusa, Scylla, Draconon, Arconesus, Diethusa, Scapos, Capheris, Mesate, Æantion, Phateruneios, Pateria, Calcte, Neriphus and Polendus.

The fourth of those great seas in Europe, beginning at Hellespont, endeth in the mouth of Mæotis. But briefly we are to describe the forme of the whole sea, to the end the parts may be sooner and more easily known. The vast and wide Ocean lying before Asia, and driuen out from Europe in that long coast of Cherrhonesus, breaketh into the maine with a small and narrow issue, and by a Firth of 7 stadia, as hath been said, diuideth Europe from Asia. The first streights they call Hellespontus: this way *Xerxes* the King made a bridge vpon ships, and so led his armie ouer. From thence there is extended a small Euripus or arme of the sea for 86 miles space to Priapus a city of Asia, whereas *Alexander* the great passed ouer. From that place the sea grows wide and broad, and again gathereth into a streight: the largenesse thereof is called Propontis, the streights Bosphorus, halfe a mile ouer; and that way *Darius* the father of *Xerxes* made a bridge ouer and transported his forces. The whole length of this from Hellespont is 239 miles. From thence the huge main sea called Pontus Euxinus, and in times past Aënus, takes vp the space between lands far distite and remote asunder, and with a great winding and turning of the shores bendeth back into certain horns, and lieth out stretched from them on both sides, resembling evidently a Scythian bow. In the very mids of this bending it ioineth close to the mouth of the lake Mæotis, and that mouth is called Cimmerius Bosphorus, 2 miles and a halfe broad. But between the two Bosphori, Thracius and Cimmerius, there is a direct strait course between, as *Polybius* saith, of 500 miles. Now the whole circuit of all this sea, as *Varro* and all the old writers for the most part do witness, is 2150 miles. *Nepos Cornelius* addes thereto 350 miles more. *Artemidorus* maketh it 2919 miles. *Agrippa*, 2360 miles. *Mutianus*, 2865 miles. In like sort some haue determined and defined the measure on Europe side to be 4078 miles and a halfe: others, 1172 miles. *M. Varro* taketh his measure in this manner: from the mouth of Pontus to Apollonia 188 miles and a halfe: to Calatis as much. Then to the mouth of Ister 125: to Boristhenes 250: to Cherrhonesus a towne of the Heracleates, 375 miles. To Panticapæus, which some call Bosphorus, the vtmost coast of Europe, 222 miles and a halfe, which in all makes 1336 miles and a halfe. *Agrippa* measureth thus: From Byzantium to the river Ister 560 miles: then to Panticapæum 630: from thence the very lake Mæotis taking into it the river Tanais, running out of the Rhiphaean hills, is supposed to beare the compass of 1306 miles, being the farthest bound betweene Europe and Asia. Others again make 11025 miles. But surely from his mouth to the mouth of Tanais, and take a streight course, it is 375 miles without question. The inhabitants of that coast haue beene named in the description and mention of Thrace, as farre as to Istropolis: now from thence the mouthes of Ister. This river arising among the hills of Abnoba a mountain of Germanie, ouer against Rauricum a towne in Gaule, passing many a mile beyond the Alpes, and through innumerable Nations vnder the name of Danubius, with a mightie increase of waters, and where hee first beginneth to wash Illyricum, taking the name of Ister after he hath receiued three score riuers, and the one halfe of them well neere nauigable, rolleth into Pontus with six huge streames. The first mouth of it is Peuces, soone after the Island it selfe Peuce, of which the next Channell

G
H
I
K
L
M

A took name, and is swallowed vp of a great mere of 19 miles. Out of the same channell and about Astropolis, a poole is bred of 63 miles compass, which they call Halmiris. The second mouth is called Naracustoma: the third Calostoma, neere the Island Sarmatica: the fourth Pseudostoma, and the Island Conopon Diabasis. After that, Boreostoma, and Spireostoma. Each of these are so great, that by report the sea for 40 miles length within it is ouer-matched with the same, and the fresh water may so far be evidently tasted. From it, into the inland parts of the country, the people verily be all Scythians: but diuers other nations there be that inhabit the coasts next to the sea: in some places the Getæ, called of the Romanes Daci: in others Sarmatæ, of the Greekes Sauromatæ; and among them, the Hantaxobij or Aorsi. Elsewhere, the bastard and degenerate Scythians, who are come from base slaues, or else the Troglodites, and anon the Alani and Rhoxalani. But the higher parts betweene Danubius and the Forrest Hercynius, as farre as to the Pannonian wintering harbours of Carnuntum, and the confines there of the Germans, the fielden countrie also & plains of Iazegæ, the Sarmatians possesse. But the hills and Forrests, the Dakes who were expelled by them, do inhabit as farre as to the river Pythylus from Marus; or peraduenture it is Duria, diuiding them from the Sueuians & kingdom of Vannians. The parts against these, the Bastarnæ doe keepe; and from thence, other Germans. *Agrippa* hath set downe that whole tract from Ister to the Ocean, to mount vnto 2000 miles, and 400 leffe in bredth, to wit, from the desarts of Sarmatia to the river Vistula. The name of Scythians euery where continually runs into Sarmatians and Germans. Neither hath that old denomination remained in any others but those, who (as I haue said) liue farthest off; and in the edge of these nations, vnknowne in manner to all men besides. But the townes next to Ister are Cremniscos, and Æpolium: the mountaines Macrocrenii: the noble river Tyra, giuing name to the towne, whereas before-time it was called Ophiusa. Within the same there is a spacious Island, inhabited by the Tyragetæ. And it is from Pseudostomum, a mouth of Ister, 130 miles. Soone after be the Axiacæ, bearing the name after the river: beyond whom are the Crobyzi: the river Rhode: the creeke Sagaricus, and the hauen Ordesus. And 120 miles from Tyra, is the great river Borysthenes; also a lake and people of that name: yea and a towne 15 miles within from the sea, called by ancient names Olbropolis, and Milcetropolis. Again, in the sea side, the hauen or harbour of the Achæans: the Island of *Achilles*, famous for the tombe of that worthy wight. And from it 135 miles, there is a demy Island lying out across in fashion of a sword, called Dromos Achilleos, vpon occasion of his exercise there of running: the length whereof *Agrippa* hath declared to be 80 miles. All that tract throughout, the Taurisci, Scythians, and Sarmatians do inhabit. Then the wilde woodland countrie gaue the name vnto the sea Hylæum, which beates hard vpon it: the inhabitants are called Enacadioæ. Beyond is the river Panticapes, which diuideth the Nomades and Georgians asunder: and soone after Acefinus. Some writers doe shew, that Panticape together with Borysthenes, runne together in one confluent beneath Olbia, but they that write more exactly, doe name Hypanis. See how much they erred, who haue described it in a part of Asia. It entreth into the sea with a mighty great ebbe and returne of the water, vntill it be within five miles of Mæotis, compassing as it goeth a mighty deale of ground, and many nations. Then there is a gulfe or arme of the sea called Corcinites, and a river Pacyrus. Towns, Naubarum and Carcine. Behind, is the lake Buges, let out into the sea by a great ditch. And Buges is self from Coretus (an arme or branch of the lake Mæotis) is disioyned, with a backe part full of crags and rocks. Riuers it receiue, Buges, Gerrhus, Hypanis, comming all from diuers quarters: for Gerrhus parteth the Basilides and Nomades. Hypanis, through the Nomades and the Hyleans, falleth into Buges by a channell made by mans hand, but in his owne naturall channell into Coretus. The region of Scythia is named Sendica. But in Carcinites, Taurica beginneth: which also in times past was enuironed all about with the sea, wherefoeuer now there lie plains and flat fields. But afterwards it mounteth vp with huge hills. Thirtie nations there be in it: and of them 24 be Inlanders. Six townes, Orgocyni, Caraseni, Assyrani, Traçari, Archilachitæ, and Caliori. The very pitch and crest of the hill, the Scytotauri do hold. Bounded they are Westward, with Cherrhonesus; Eastward with the Scythian Satarchi. In the coast next to Carcinites are these towns, Taphræ, in the very streights of the demy Island: then, Heraclea, Cherrhonesus, endowed with franchises by the Romans. A foretime it was called Megarice, and is the most ciuel & fairest of all the rest of that tract, as retaining still the names and fashions of the Greekes, and is besides compassed with a wall

wall of five miles about. Then, the promontory Parthenium. A citie of the Tauri, Placia. The haven Symbolon: the promontory Criu-metopon, ouer against Charambes a promontorie of Asia, running through the middle of Euginus, for the space of 170 miles: which is the cause especially that maketh the forme abouesaid of a Scythian bow. Neere to it, are many hauens and lakes of the Tauri. The towne Theodosia, distant from Criu-Metopon 122 miles, and from Cherfoneus 165 miles. Beyond, there haue been towne, Cyte, Cephyrium, Acre, Nymphem, and Dia. And the strongest of them all by many degrees, standeth yet still in the very entry of Bosphorus, namely, Panteapium of the Milesians, from Theodosia 1035 miles: but from Cimmerum a town scituate beyond the Firth, a mile and a halfe as we haue said. And this is all the bredth there that diuideth Asia from Europe: which sometime is passeable ouer most what on foot, namely, when the Firth is frozen and all on yce. The breadth of Bosphorus Cimmerius is 12 miles and a halfe. It hath vpon it these towne, Hermisum, Myrmecium; and within it, an Island Alopecce. But along Mæotis, from the farthest narrow land passage, which place is called Taphræ, vnto the mouth of Bosphorus, it contains 260 miles. On Taphræ side, the Continent within forth is inhabited by the Ancheta, among whom Hypanis springeth: and Neuri, where Borysthenes hath his head. Moreouer, the Geloni, Thussageta, Budini, Basilida, and the Agathyrri, with blew haire on their heads. Aboue them, the Momades, and the Anthropophagi. On Buges side aboue Mæotis, the Sauromates and Essedones dwell, but along the borders etien as far as Tanais, the Mæotæ, of whom the lake was so called, and the vtmost on their backes the Arimaspi. Within a little appeare the Rhiphæan hills, and a countrey called Prephoros, for the resemblance of certain wings or feathers, occasioned by the continuall fall of snow. A part of the world thus is condemned by dame Nature, and drowned in deepe and thick darkenes, dwelling within no other houses but the workes of frozen cold, and the ycie harbors of the chilling Northerne wind. Behind those hills and beyond the North pole, there is a blessed and happy people (if we may beleuee it) whom they call Hyperborei, who liue exceeding long, and many fabulous and strange wonders are reported of them. In this tract are supposed to be the two points or poles about which the world turns about, and the very ends of the heauens reuolution. For 6 months together they haue one entire day, and night as long, when the Sunne is cleane turned from them: but their day beginneth not at the spring Equinoctiall (as the leaud and ignorant common people do imagine) and so continueth to the Autumne: for once in the yeere, and namely at our mid-sommer when the Sun entreth into Cancer, the Sun riseth with them: and once likewise it setteth, euen in the mid-winter with vs, when the Sun entreth Capricorne. The countrey is open vpon the Sunne, of a blissefull and pleasant temperature, void of all noisome wind & hurtfull aire. Their habitations be in woods and groues, where they worship the gods both by themselves, and in companies and congregations: no discord know they; no sickness are they acquainted with. They neuer die, but when they haue liued long enough: for when the aged men haue made good cheere, and annointed their bodies with sweet ointments, they leape from off a certain rocke into the sea. This kind of sepulture, of all others is most happy. Some Writers haue seated them in the first part of the sea coasts in Asia, and not in Europe, for that indeed some be there resembling the like manners and customes, and euen so scituate, named Atocori. Some haue set them iust in the mids between both Sunnes to wit, the setting of it with the Antipodes, and the rising of it with vs: which cannot possibly be, considering so vast and huge a sea comming betweene. As for those that haue placed them no where but in the six months day-light, haue written thus much of them, That they sow in the morning, reape at noone, at sun-setting gather the fruits from the trees, and in the nights lie close shut vp within caues. Neither may we make doubt of that nation, since that so many Authors doe testifie, That they were wont to send the first fruits of their come, as far as Delos to Apollo, whom aboue all others they honour. And virgins they were that had the carriage of this present, who for certaine yeeres were venerable, and courteously entertained of all nations, vntill such time as vpon breach of faithfull hospitalitie, they took vp an order to bestow those sacred oblations in the next marches of their neighbour borderers: and they againe to conueigh the same to their neighbours that confined vpon them, and so forward as far as to Delos. But soone after, this custome was for-let and cleane giuen ouer. The length of Sarmatia, Scythia, and Taurica, and of all that tract from the riuier Borysthenes, is 980 miles, the breadth 717, as M. Agrippa hath cast it. But I for my part suppose, that the measure of this part of the earth is

vncertaine,

A vncertaine: but after the order which we haue begun, let vs go forward with the rest behind of all this diuision: as for the pety seas thereof we haue truly shewed them already.

CHAP. XIII.

The Islands Pontus.

HELLESPONT hath no Islands to be spoken of, in Europe. In Pontus are two, a mile and halfe from Europ, and 14 miles from the mouth of the riuier, to wit, Cyaneæ, of others called Symplegades; and by report of fables they ran one into another: the reason was, because they being feuered by a small space betweene, to them that enter the sea full vpon them, they seemed twaine: but if they turned their eye a little aside from them, they made a shew as if they met together. On this side Ister there is one, pertaining to the Apolloniates, 80 miles from Bosphorus Thracius, out of which M. Lucullus brought Apollo Capitolinus. What are within the mouth of Ister we haue declared already. Before Borysthenes is the aboue named Achillea, called Leuce and Macaron. This, our moderne Cosmographers in these daies doe set 146 miles from Borysthenes, from Tyra 120: from the Island Peuce 50. It is in compasse about ten miles. The rest be in the gulfe Carcinites, namely Cephalonnesos, Rhosphodusa, and Macra. I cannot passe by the opinion of many writers, before we depart from Pontus, who suppose all the inland seas or Mediterranean arise from that head, and not from the streights of Gades: and they lay for their ground an argument not without some good probabilitie, because out of Pontus the sea alwaies floweth, and neuer ebbeth againe.

But now we are to depart from thence, that other parts of Europ may be spoken of: & when we are gone ouer the Rhiphæan hills, we must passe along close by the North Ocean, and keepe the left hand vntill we come to Gades. In which tract there are reported to be very many Isles without name: of which, as Tymæus reporteth, there is one before Scythia called Bannomanna, distant from Scythia one daies sailing: into which, in the temperate season of the spring, Amber is cast vp to the shore by the waues of the sea. All the other coasts are no otherwise marked and known but by vnertain heare-say. The North Ocean from the riuier Paropamisus, where as it dasheth vpon Scythia, Hecataeus nameth Amarchium, which word in the language of that nation signifieth, Frozen. Philemon writeth, that the Cymbrians call it Morimarula, i. mortuum Mare, the dead sea, euen as far as to the promontorie of Rubra: but all beyond forward, Cronium. Xenophon Lampiscenus saith, That three daies sailing from the Scythian coast there is the Island Baltia, of exceeding greatnesse. The same doth Pythias name Basylia. There be also named the Isles Oonæ, wherein the Inhabitants liue of birds egges and otes. Others also, wherein men are born with horse feet, called thereupon Hippopades. Others againe of the Panoti, who being otherwise naked, haue mighty great cares that couer their whole bodies. And now forward we begin at the nation of the Lugovoni, the first of all the Germanes in those parts; to discover all vpon more sure and euident report. There is the exceeding great mountain Sevo, not inferior to the high hills Rhiphæi, which maketh a mighty huge gulfe, euen as far as the Cimbrians promontory, called Codanus: it is full of Islands, of which the goodliest of all is Scandinavia, the bignesse whereof is not yet discovered. A part only thereof, as much as is knowne, the nation of Heleuiones doth inhabit in 500 villages, who call it a second world. And as it is thought, Enigia is no whit lesse. Some say that these parts, as far as to the riuier Vistula, is inhabited by the Sarmatians, Venetians, Scyrians, and Hirrians: also that the gulfe of the sea is called Clylipenus: and that in the mouth or entrance of it is the Island Latris. Also that not far from it there is another arme of the sea bounding vpon the Cimbrians. The promontory of the Cimbrians shooting far into the seas, maketh a demy Island, which is called Cartris: from which coast 23 Islands haue been discovered and known by the Roman armies; the noblest of them are Barchana, called of our countrey men Fabaria, of the plenty of a pulse called Beans, growne there of it selfe vnsworne. Likewise Glessaria, so called by the soldiers, of Amber: but of the barbarous people Austrania; and besides them Aðania. Along this sea coast, vntill you come to the riuier Scaldis, the German nations do inhabit, but the measure of that tract cannot easily be declared, such vnmeasurable discord and difference there is amongst Writers. The Greeks and some of our owne country haue deliuered the coast of Germanie to be 2500 miles about. Agrippa again ioyning with it Rhetia and Noricum, saith that it is in length 886 miles,

and in bredth 268. And verily of Rhoetia alone, the bredth well-neere is greater, at leastwise at the time that it was subdued, and the people departed out of Germanie: for Germany many yeares after was discovered, and yet not all of it known throughly. But if it be lawful to gesse, there will not be much wanting in the coasts & compasse, according the opinion of the Greeks; nor in the length set down by *Agrippa*.

CHAP. XIV.

¶ *Germanie.*

OF Germanes there be five kindes: the Vindili, part of whom be the Burgundians, Varini, Carini, and Gurtones. A second sort, the Ingevones, part of whom be the Cimbri, Teutoni, and people of the Cauchi. The next to them be the Istævones, and part of them be the Cimbri. Then the midlanders, the Hermiones, among whom are the Suevi, Hermunduri, Chatti, and Cherufci. The fifth are the Peucini, the Basternæ, bordering vpon the aboue-named Dacæ. Faire riuers that run into the Ocean, to wit, Guttalus, Vistillus, or Vistula, Albis, Visturgis, Amisus, Rhenus, Mosa. And within-forth the Hircynium hill, inferiour to none in estimation, standeth to gard and inclose them.

CHAP. XV.

¶ *Islands in the Gaules Ocean.*

Vpon the very Rhene it selfe, for 100 miles almost in length, lieth the most noble Island of the Batavi and Cannenufates: as also others of the Frisians, Cauchians, Frisiabones, Sturij, and Marsalij, spread within Helius and Flevus, for so be the mouthes into which Rhenus gushing, diuideth it selfe; and is discharged from the North into certain lakes: from the West into the riuier Mosa. But in the middle mouth between, hee beareth a small current and channell, and keepeth his owne name.

CHAP. XVI.

¶ *England and Ireland.*

OVER against this tract lieth Britannia, betweene the North and West, being an Island renowned both in Greeke and Roman records: opposite it is vnto Germanie, Gaule, and Spaine, the greatest parts by far of all Europe, and no small sea betweene. It was sometime named Albion, when all the Isles were called Britannia, of which anon we wil speak. This Island is from Gessoriacum, a coast towne of Morini, fifty miles, taking the next and shortest cut. In circuit, as *M. Pitheas* and *Isidor* report, it containeth 3825 miles. And now for these thirtie yeares well-neere, the Romane Captaines grow into farther knowledge thereof, and yet not beyond the Forrest of Caledonia, as neere as it is. *Agrippa* supposeth that it is in length 800 miles, and in bredth 300. Also that Ireland is as broad, but not so long by 200 miles. This Isle is seated aboue it, and but a very short cut or passage distant from it, to wit, 30 miles from the people Silures. Of other Islands in this Ocean there is none by report in circuit more than 125 miles. Now there be Orcades 40, diuided asunder by small spaces betweene: *Acmodæ* 7, and 30 *Hæbudes*. Also betweene Britaine and Hibernia, *Mona*, *Monapia*, *Ricnea*, *Veëtis*, *Silimnus*, and *Andros*: but beneath them, *Siambis* and *Axantos*: and on the contrary side towards the Germane Sea there lie scattering the *Gleffariæ*, which the later Greeke Writers haue named *Eleftrides*, for that Amber was there ingendred or bred. The farthest of all knowne or spoken of, is *Thule*, in which there be no nights at all, as we haue declared, about Midsummer, namely when the Sun passeth through Cancer: and contrariwise no daies in mid-winter: and each of these times they suppose do last six moneths, all day or all night. *Timæus* the Historiographer saith, that farther within-forth, and six daies failing from Britain, there lieth the Island *Mictis*, in which white lead grows; and that the Britans do saile thither in winter vessels, couered with leather round about, and wel fowed. There be that make mention of others beside, to wit, *Scandia*, *Dumna*, *Bergos*, and *Nerigos* the biggest of all the rest, from the which men saile to *Thule*. Within one daies failing from *Thule* is the frozen sea, named of some *Cronium*.

CHAP.

CHAP. XVII.

¶ *Gallia.*

ALL Gallia, by one name called *Comata*, is diuided into three kindes of people, and those feuered one from the other by riuers especially: to wit, Belgica, from Scaldis to Sequana: Celtica, from it to Garumna; and this part of Gallia is named *Lugdunensis*. From thence to the lying out of the mountaine Pyrenæus, Aquitania, formerly called *Aremorica*, *Agrippa* hath made this reckoning and computation of all Gaul generally, to wit, lying between Rhene, Pyrenæus, the Ocean, and the hills Gebenna and Iura; whereby hee excludeth *Narbonensis Gallia*, that is in length 420 miles, and in bredth 313. Next to Scaldis there inhabited the vtmost borderers, the *Toxandri*, vnder many names: then the *Menapij*, *Morini*, and *Oromanfci*, ioyning vpon the tract or territories called *Gessoriacus*: the *Brinnani*, *Ambiani*, *Bellonici*, and *Hassi*. But farther within-forth, the *Castologi*, *Atrebatii*, and *Neruij*, free states: the *Veromandui*, *Sueroni*, and *Suessiones*, likewise free: the *Treviri* free before-time: the *Lingones* confederates, the *Remi* confederats also: the *Mediomotricæ*, the *Sequani*, the *Raurici*, & *Helvetij*. Colonies two, *Equestris* and *Rauriaca*. Moreouer, of Germane nations in the same Province that dwell neere Rhene, the *Nemetes*, *Trivochi*, and *Vangiones*: then the *Vbij*, *Colonia*, *Agrippensis*, *Gugerni*, *Batavi*, and those whom we spake of in the Islands of Rhene.

CHAP. XVIII.

¶ *Lugdunensis Gallia.*

Lvgdunensis Gallia containeth the *Luxovij*, *Velocasses*, *Galleti*, *Veneti*, *Abricatui*, *Osismij*, and the noble riuier *Ligeris*: but a more faire and goodly demy-Island, running forth into the Ocean, from the very marches of the *Osismij*, hauing in circuit 625 miles, with the necke thereof 125 miles broad. Beyond it dwell the *Nannites*. Within-forth, the *Hædni* confederats, the *Carnuti* likewise confederats, the *Boij*, the *Senones*, the *Aulerici*, surnamed *Ebuovices*, and the *Cenomannes* and *Meldi*, free States. *Parrhisij*, *Trecasses*, *Andegani*, *Viducasses*, *Vadicaesses*, *Vnelli*, *Cariofvelites*, *Drabhudi*, *Rhedones*, *Turones*, *Itefui*, and *Secusiani*, free States, in whose countrey standeth the Colonie *Lugdunum*.

CHAP. XIX.

¶ *Aquitania.*

THAT prouince of Gaule which is called Aquitania, belong the *Ambilatri*, *Anagnutes*, *Pictones*, the *Santones*, *Bituriges*, named also *Vibiscij* *Aquitani*, whereof the Prouince tooke name, and the *Sediboniates*. Then such as were enrolled into towneships from diuers parts, to wit, *Begerri*, *Tarbeli*, who came vnder foure ensignes, *Cocossati* vnder 6 ensignes, *Venami*, *Onobriates*, *Belendi*, and the forest Pyrenæus. Beneath them, *Monesi*, *Ofquidiales*, *Mountainers*, *Sibillates*, *Camponi*, *Bercorates*, *Bipedimui*, *Sassumini*, *Vellates*, *Vornates*, *Conforanni*, *Aufci*, *Elufates*, *Sottiates*, *Ofquidates* in the champion and plaine country, *Succasses*, *Latufates*, *Bafabocates*, *Vassei*, *Sennates*, *Cambolæstri*, *Agessinales*, ioyning to the *Pictones*. Then the *Bituriges* free, called also *Cubi*. Next to them, *Lemovires*, *Arverni* free, and *Gabales*. Again, those that confine and border vpon the prouince *Narbonensis*, the *Ruthenes*, *Cadunij*, *Autobroges*, & the *Petrogortij*, diuided from the *Tolosanes* by the riuier *Tarne*. Seas about the coasts, vpon Rhene the North Ocean: between it and Sequana the Britan ocean: between it and Pyrenæus, the Gaule Ocean. Islands many, to wit of the *Veneti*, called also *Veneticeæ*: and in the gulfe of Aquitane, *Vliarus*.

CHAP. XX.

¶ *The higher Prouince of Spaine.*

AT the Promontorie of Pyrenæus beginneth Spain, narrower not only than Gaule, but also than it selfe (naturally) so huge a quantitie is wrought into it, while the Ocean of one coast, the Iberian sea on the other, do cling and presse the sides together. The very hills

of Pyrenæus, which from the East spread all the way to the Southwest, make Spaine shorter on the North side than the South. The next marches of this higher prouince is the same that the tract of Tarracon, namely from Pyrenæus along the Ocean, the Forrest and mountains of Vascōnes. And first in this part you finde these townes: namely in the country of the Varduli, O-larso, Morosgi, Menosca, Vesperies, the port towne Amanum, where now is Flaviobriga, and a colony of nine cities. The region of the Cantabri, the tiuer Sada, the port town of Victōria, inhabited by the Iuliobrigenses. From that place the fountaines of Iberus, 40 miles. The haven Biendum, the Origeni entermingled with the Cantabri. Their hauens Vesei and Veca: the country of the Astures, the towne Nœga, in the demy Island Peficus. And then the countie Lucensis, and so from the riuer Navilubio, the Cibarci, Egovari, synnamed Namarini, Iadoni, Arrotieba, the promontorie Celticum. Riuers, Florius and Nelo. Celtici synnamed Neria: and about them the Tamarici, in whose demy Island are 3 Altars called Sestiana, dedicated to *Augustus*, Coepori, and the towne Nœla. The Celtici, synnamed Præfamarci, and Cileni. Of Isles worth the naming, Corticata and Aunios. From the Cileni, the county town of the Bracæ, Heleni, Gravij, the castle Tyde, all descended from the Greekes: the Islands Cicæ, the faire town Abobrica, the riuer Minius, with a broad mouth 4 miles over, the Leuni, Seurbi, *Augusta* a town of the Bracæ: and about them also, Gallæcia, the riuer Limia. Also the riuer Durius, one of the greatest in Spaine, springing in the Pelendones country, & running hard by Numan-tia, and so on, through the Arevaci and Vaccæi, diuiding the Vetones from Asturia, and the Gallæcians from Lusitania: and there also it keepeth off the Turduli from the Bracari. All this region about said from Pyrenæus, is full of mettall mines, to wit, gold, silver, iron, lead, as well blacke as white, &c. tinne.

CHAP. XXI.

¶ *Lusitania.*

AT the riuer Durius begins Lusitania, wherein are Turduli the old, Pefuri, the riuer Vacca, the towne Talabrica, the towne and riuer Minium. Townes, Conimbrica, Olisippo, Ebu-ro, Britium: from whence there runs out into the sea with a mighty cape, the promontorie which some haue called Artabrum; others, the Great; and many, Olisipponense, of the towne, making a diuision of land, sea, and aire above. In it is the side of Spaine determined and bounded, and from the compasse of it beginneth the forefront thereof.

CHAP. XXII.

¶ *Islands in the Ocean.*

ON the one hand is the North and the Gauls Ocean: on the other, the West and the Atlanticke Ocean. The shooting forth of the promontorie aforesaid some haue reported to be 60 miles, others 90. From thence to Pyrenæus there be writers not a few, who say it is 1250 miles, and that there is a nation of the Atabri, which neuer was, with a manifest error. For they haue set in this place by exchanging some letters, the Arrotreba, whome wee named before the promontorie Celticum. They haue erred also and missed in certain famous riuers. From Minius above named, as *Varro* saith, *Aminius* is 200 miles distant (which some men take to be elsewhere, and call it Limæa) named of men in old time Oblivionis, and whereof goeth many a tale. From Durius to Tagus is 200 miles, and comes between. This Tagus is a riuer much renowned for the sand that yeelds gold. 160 miles from it the promontory Sacrum runs out from the middle front in manner of Spain: and 14 miles *Varro* saith it is from it to the mids of Pyrenæus. But from Ana, by which we haue separated Lusitania from Bætica, 226 miles, adding therto from Gades 102 miles. Nations, Celtici, Varduli, and about Tagus, the Vettones. From Ana to Sacrum the Lusitanes. Memorable townes, from Tagus in the coast side, Olisippo, of good note for the Mares that conceiue there by the West wind. Salatia, with addition of Vrbs Imperatoria, and Merobrica: the promontory Sacrum, & another called Cæneus: towns, Offonoba, Balsa, and Myrtius. The whole prouince is diuided into three counties or iudiciall courts of Assises, Emeritenfis, Pacensis, and Scalabitanus. It containeth in all fise and forty States, wherein be fise Colonies, one Borough Towne of Romane Citifens, three enfran-

chised

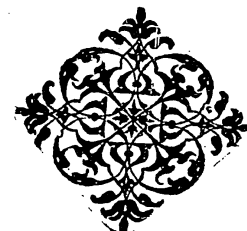
chised with the liberties of old Latium. Stipendiaries or Tributaries 36. Moreover, the Colonies be thus named, *Augusta Emerita*: and vpon the riuer Ana, *Metallinensis*, *Pacensis*, *Nor-bennis*, named also *Cæsariana*. To it are layed and inrolled *Castra Iulia* and *Castra Cæcilia*. The first is *Scalabis*, called *Præsidium Iulium*. The free borough of Roman citifens, *Olyssippo*, named also *Felicitas Iulia*. Townes of the old Latium liberty, *Ebora*, which likewise was called *Liberalitas Iulia*: *Myrtis* also and *Salatia*, which we haue spoken. Of Tributaries, such as I am not loth to name, beside the aboue said in the additions of Bætica, *Augustobrigenses*, *Ammienfes*, *Aranditani*, *Axabricenses*, *Balsenses*, *Cæsarobrigenses*, *Caperenses*, *Caurenfes*, *Colarni*, *Cibilitani*, *Concordienfes*, the same that *Bonori*, *Interaufenses*, *Lancienfes*. *Mirobri-genses*, synnamed *Celtici*, *Medubricenses*, the same that *Plumbarij*, *Ocelenses*, who also are *Lancienfes*, *Turtuli*, named *Barduli* and *Tapori*. *M. Agrippa* hath written, that *Lusitania*, together with *Asturia* and *Gallæcia*, is in length 540 miles, and in bredth 526. But all Spain from the two promontories of Pyrenæus, along the seas, takes vp in circuit of the whole coast, 2900 miles, and by others 2700. Over against Celtiberia be very many Isles, called of the Greekes *Cassiterides*, for the plenty of lead which they yeeld: and iust against the promontorie of the *Arrotreba*, six named *Deorum* [i. of the gods] which some haue called *Fortunata*. But in the very point or cape of Bætica, from the mouth of the firth 75 miles, lieth the Island *Gades*, 12 miles long, as *Polybius* writeth, and three miles broad. It is from the maine, where it is neereft, lesse than * 700 paces, in other places about seven miles. The whole Isle it selfe contains the space of 15 miles in circuit. It hath within it a towne of Roman citifens named *Augusta*, Vrbs *Iulia Gaditania*. On that side that regards Spain, within 100 paces lieth another Island three miles long and one broad, wherein formerly was the towne *Gades*. The name of this Island, after *Ephorus* and *Thilistides*, is *Erythia*: but according to *Tymæus* and *Silenus*, *Aprodisias*: the name was by them called *Cotinusa*, our countrymen name it *Tartessos*, the Carthaginians * *Gadir*, which in the Punicke language signifieth the * number of seven. *Erythia* the other was called, because the *Tirians*, who were the first inhabitants, were reported to haue had their first beginning out of the red sea *Erythræum*. Some thinke that *Geryon* here dwelt, he whose droues of be-cattell *Hercules* had away. Some againe thinke it is another, ouer against Lusitania, and there sometime so called.

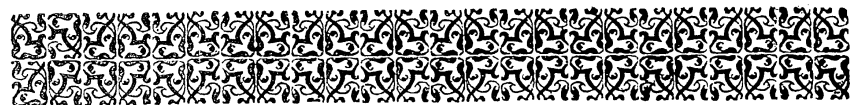
* I estimate
quarters of a
miles.* Or *Gadiz*:
* Septem, or as
some read, *Septem*, i. a park
or enclosure.

CHAP. XXIII.

¶ *The measure of all Europe.*

HAuing finished our circuit about Europ, we must now yeeld the totall summe and complete measure of it in the whole, that such as are desirous of knowledge be not to seek in any one thing. *Artemidorus* and *Isidore* haue set downe the length thereof from *Tanais* to *Gades*, 840 14 miles, *Polybius* hath put down the bredth thereof, from Italy to the Ocean 1150 miles, for as then the largenesse thereof was not knowne. Now the very bredth of Italy alone by it selfe (as we haue shewed) is 1220 miles to the Alps: from whence by Lyons to the Britaine part of the Morini (which way *Polybius* seemeth to take his measure) is 1168 miles. But the more certaine measure and the longer is directed from the said Alps to the West, and the mouth of the Rhine, through the place called *Castra Legionum Germaniæ*, 1243 miles. Now from henceforward we will describe *Africke* and *Asia*.





THE FIFTH BOOKE OF THE HISTORIE OF NATVRE, WRITTEN BY C. PLINIUS SECVNDVS.

The description of Africke.

Africke the Greekes haue called *Lybia*, euen all that tract from whence the *Lybian* sea before it beginneth, and endeth in the *Egyptian*. No part of the earth receiveth fewer gulfes and armes of the sea, in that long compasse of crooked coasts from the West. The names as well of the Nations as towns there be of all others most hard to be pronounced, vnlesse it be in their owne tongues, and againe they be castles and forts for the most part that they dwell in.

CHAP. I.

¶ Mauritania.



At the beginning, the lands of Mauritania vntill the time of *C. Caesar*, [*i. Caligula*] some of *Germanicus*, were called kingdomes: but by his cruelty diuided it was into two prouinces. The vtmost promontorie of the Ocean is named of the Greeks *Ampelusia*: the townes therein were *Lissa* and *Cotes*, beyond *Hercules* pillars. Now in it is *Tingi*, sometime built by *Antaus*: and afterward by *Claudius Caesar* when he made a Colonie of it, it was called *Tradueta Iulia*. It is from *Bellone* a towne in *Bartica* by the next and neereft passage ouer sea thirty miles. Fiue and twenty miles from it in the Ocean coast standeth a Colonie erected by *Augustus*, now *Iulia Constantia*, exempt from the dominion and iurisdiction of the Kings of *Zilis*, and commanded to go for law and iustice as far as *Bartica*. And two and thirty miles from it, *Lixus*, made a Colony by *Claudius Caesar*; whereof in old time there went many fabulous and loud lying tales. For there stood, they say, the royall pallace of *Antaus*: there was the combat betweene him and *Hercules*: there also were the gardens and hort-yards of the *Hesperides*. Now there floweth thereinto out of the sea a certain creek or arme thereof, and that by a winding channell, wherein men now take it that there were Dragons seruing in good stead to keep and gard the same. It incloseth an Island within it selfe, which, notwithstanding the Tract thereby be somewhat higher, is onely not overflowed by the sea tides. In it there standeth erected an altar of *Hercules*: and setting aside certaine wilde Oliues, nothing else is to be seen of that goodly groue, reported to beare golden Apples. And in good faith lesse may they wonder at the strange lies of Greece: given out of these and the riuer *Lixus*, who would but thinke how of late our countrey men haue deliuered some fables of the same things as monstrous well-neere: to wit, That this a most strong and mighty city, and bigger than great *Carthage* moreouer, that it is situate right against it, and an infinite way well-neere from *Tingi*: and other such like, which *Cornelius Nepes* hath been most eager to beleue. From *Lixus* forty miles in the midland part of the main stand *Babba*, another Colony of *Augustus*, called by him *Iulia* in the field or champion: also a third - 5 miles off, called *Banasa*, but now it hath the addition of *Valentia*. 35 miles from it is the towne *Volubile*, iust in the mid way between both seas. But in the coast and borders thereof, fifty miles from *Lixus*, runneth *Subura* a goodly plenteous riuer, and nauigable neere to the Colony *Banasa*. As many miles from it is the towne *Sala*, standing vpon a riuer

A a riuer of the same name, neere now vnto the wilderness, much infested and annoied with whole heardes of Elephants, but much more with the nation of the *Autololes*, through which lies the way to *Atlas* the most fabulous mountaine of all *Africke*. For writers haue giuen out, that this hill arising out of the very midft of the sea sands, mounteth vp to the skie, all rough, ill fauored, and ouergrowne on that side that lieth to the shore of the Ocean, vnto which it gaue the name; and yet the same is shadowie, full of woods, and watered with veines of spouting Springs that way which looketh to *Africke*, with fruitfull trees of all sorts, springing of the own accord, and bearing one vnder another, in such fort, that at no time a man can want his pleasure and delight to his full contentment. Moreouer, that none of the inhabitants there are seene all day long: all is still and silent, like the fearfull horror in desert wilderness: and as men come neerer and neerer vnto it, a secret deuotion ariseth in their hearts, and besides this feare and horreur, they are lifted vp above the clouds, and euen close to the circle of the Moone.ouer and besides, that the same hill shineth oftentimes with many flashes of fires, and is haunted with the wanton lasciuious *Ægipanes* and *Satyres*, whereof it is full, that it resoundeth with noise of Haut-boies, pipes, and lutes, and ringeth againe with the sound of tabers, timbrels, and cymbals. These be the reports of great & famous writers, to say nothing of the labors and works both of *Hercules* and *Perfes* there; and to conclude, that the way vnto it is exceeding great, and not certainly knowne. Bookes there were besides of *Hanno*, a great captain and commander among the *Carthaginians*, who in the time of the most flourishing state of *Carthage*, had a charge and commission to discouer and suruey the whole compasse of *Africke*. *Hanno*, most of the Greeks as well as our countrey men following, among some other fabulous stories, haue written that hee also built many cities there; but neither memoriall vpon record, nor any token of them at all is left extant. Whiles *Scipio Æmylianus* warred in *Africke*, *Polybius* the writer of the *Annales*, receiued of him a fleet: who hauing sailed about of purpose to search into that part of the world, hath put thus much downe in writing, that from the said mountaine West, toward the forrest full of wild beasts which *Africke* breedeth, vnto the riuer *Anatis*, are 485 miles. And from thence to *Lixus* 205. *Agrippa* saith, that *Lixus* is distant from the streights of *Gades* 112 miles. Then, that there is an arme of the sea called *Saguti*. Also a towne vpon the promontory, *Mutelacha*. Riuer, *Subura* and *Sala*. Moreouer, that the haue *Rutubis* is from *Lixus* 313 miles. And so forward to the Promontorie of the Sun. The port or haue *Risardir*, the *Gatuliens*; *Autololes*, the riuer *Cosenuis*, the nation of the *Scelartites* and *Massalians*. The riuer *Mafatal* and *Darat*, wherein *Crocodiles* are ingendred. Then forward, that there is a gulfe of 516 miles, inclosed within the promontory or cape of the mountain *Barce*, running along into the West, which is called *Surentium*: after it, the riuer *Palsus*, beyond which are the *Æthiopiens* *Perorsi*, & at their back are the *Pharusi*. Vpon whom ioine the midlanders, to wit, the *Gatulianders*. But vpon the coast are the *Æthiopian Daratites*, the riuer *Bambotus* full of *Crocodiles* & *Hippopotames* [*i. Water-horses*]. From which, he saith, That there is nothing but mountains all the way as far as to that which we call *Theon-Ochema* (The gods chariot.) Then, in sailing nine daies and nights to the promontorie *Hesperium*, he hath placed the mountain *Atlas* in mid way thereof, which by all other writers is set downe to be in the vtmost marches of *Mauritania*. The first time that the Romans warred in *Mauritania*, was in the time of prince *Claudius* Emperor: at what time as *Ædemon* the freed seruant of king *Ptolomæus*, by *C. Caesar* slaine, went about to reuenge his death: for as the barbarous people retired and fled back, certaine it is that the Romans came as far as to the hill *Atlas*. And not onely such Generals as had bin Consuls, and were of the Senatours degree and calling, who at that time managed and conducted the wars, but knights also and gentlemen of Rome, who from that time had gouernment and command there, tooke it for an honor and glory, that they had pierced and entred into *Atlas*. [* Fiue Roman Colonies, as wee haue said, be in that prouince] and by that common fame and report, there may seeme to lie a throw faire thither. But that is found for the most part by daily experience, most deceiueable of all things else; because persons of high place and great worth, when they are loath to search out narrowly into the truth of matters, fliecke not for shame of ignorance, to giue out vntruths: and neuer are men more credulous and apt to beleue and be deceiued, than when some graue personage fattereth a lie. And verily I lesse maruell, that they of gentlemens degree, yea, and those now of Senators calling, haue not come to the certaine knowledge of some things there: seeing they set their whole affection and mind vpon nothing but excesse and riot; which how powerfull

* It seemeth
that this clause
is to be set in
the beginning
of the next
chapter.

powerfull it is and forcible, is seen by this most of all, when forests are sought out far and neere for Iuory and Citron trees, when all the rocks in Getulia are searched for Murices and Purpuræ [shell fishes that yeeld the purple crimson colour.] Howbeit, the natural inhabitants of that country do write, That in the sea coast 150 miles from Sala, there is the riuer Asana, that receiueh salt water into it, but hath in it a goodly faire hauen; and not far from it another fresh riuer, which they call Fur: from which to Dyris (for that is the name in their language of Atlas, by a generall consent) are 200 miles, with a riuer comming betweene, named Vior. And there, the speech so goeth, are to be seene the certain tokens of a ground somtimes inhabited; to wit, the reliques of vine-yards and date tree groues. *Suetonius Paulinus* (a Confull in our time) who was the first Roman leader, that for certaine miles space went ouer Atlas, also hath reported verily as touching the height thereof, that with the rest and moreouer, that the foot thereof toward the bottom, stand thick and full of tall woods, with trees therein of an vnknown kinde, but the height of them is delectable to see to, smooth and euen without knots, the leaues & branches like Cypresse, and besides the strong smell they yeeld, are couered all ouer with a thinne downe, of which (with some help of Art) fine cloath may be made, such as the silk-worm doth yeeld. That the top and creft thereof is couered ouer with deepe snow euen in Sommer time. Moreouer, that he reached vp to the pitch of it at the tenth daies end, & went beyond it, as far as a riuer called Niger, through wildernesfes full of blacke dust; where otherwhiles there stood out certaine cliffes, and craggie rocks, as they were scorcht and burnt; and that those places by reason of parching heat were not habitable, albeit a man made triall thereof in the winter season: furthermore, that the pefants who dwelt in the next forests, were pestred with Elephants, wilde beasts, and serpents of all sorts; and those people were called Canarij, for that they and dogs feed together one with another, and part among them the bowels of wilde beasts. For certaine it is knowne, that a nation of the Æthiopians whom they call Peroesi, ioineh vpon them. *Tuba* the father of *Protonotus*, who before time ruled ouer both Mauritanes, a man more memorable and renowned for his study and loue of good letters, than for his kingdome and royall port, hath written the like concerning Atlas: and he saith moreouer, that there is an herb growing there called Euphorbia, of his Physitions name that first found it: the milkie iuice whereof he praifeth wondrous much, for to cleare the eies, and to be a preseruatiue against all serpents and poisons whatsoever; and thereof hath he written a treatise, and made a book by it selfe: thus much may suffice, if it be not too much, as touching Atlas.

CHAP. II.

¶ The prouince Tingitania.

The length of the Prouince Tingitania taketh 170 miles. The nations therein be these: the Mauri, which in times past was the principall, and of whom the prouince took name: and those most writers haue called Marusij. Being by war weakened and diminished, they came in the end to a few families only. Next to them were the Massæfuli, but in like manner were they consumed. Now is the prouince inhabited by the Getulians, Bannurri, and the Autololes, the most valiant and puissant of all the rest. A member of these were sometime the Vesuni, but being diuided from them, they became a nation by themselves, and bounded vpon the Æthiopians. The prouince naturally full of mountains Eastward, breedeth Elephants. In the hill also Abila, and in those which for their euen and equal height they call, The 7 brethren: and these butt vpon Abila, which looketh ouer into the sea. From these beginneth the coast of the Inward sea. The riuer Timuda nauigable, and a town sometime (of that name.) The riuer Laud, which also receineth vessels. The town Rufardie, and the hauen. The riuer Malvana nauigable. The towne Siga iust against Malacha scituate in Spaine: the Royall seat of *Syphax*, and now the other Mauritania. For a long time they kept the names of KK. so as the vtmost was called Bogadiana: and likewise Bocchi, which now is Cæsarienses. Next vnto it is the hauen, for the largenesse thereof called Magnus, with a towne of Roman citizens. The Riuer Muluca, which is the limit of Bocchi and the Massæfuli. Quiza Xenitana, a towne of strangers: Arfennaria, a towne of Larines three miles from the Sea: Carcenna, a Colonie of *Augustus*, erected for the second Legion: likewise another Colonie of his planted with the Pretorian band, Gunugi, and the promontorie of *Apollo*. And a most famous towne there Cæsarea, vsually before-time called Iol, the Royall Seat of King *Tuba*: endowed by *Claudius* the Empe-
rour

A rour of happie memorie, with the franchises and right of a Colonie, at whose appointment the old souldiers were there bestowed. A new towne, Tipasa, with the grant of the liberties of *Laticium*. Likewise Icosium, endowed by *Vespasian* the Emperour, with the same donations. The colonie of *Augustus* Rusconia, and Ruscurium, by *Claudius* honoured with the free burgeoisie of the citie. Rusocruz, a colonie of *Augustus*. Salde, a Colonie of the same man. Igelgilialso, and Turca, a towne seated vpon the sea and the riuer Amfaga. Within the land, the Colonie Augusta, the same that Succubar, and likewise Tubrisuptus. Cities, Timici, Tigauræ. Riuers, Sarda-bala and Nabor. The people Macurebi; the riuer Vlar, and the nation of the Nabades. The riuer B Ampfaga is from Cæsarea 233 miles. The length of Mauritania both the one and the other together, is 839 miles; the breadth 467.

CHAP. III.

¶ Numidia.

Next to Ampfaga is Numidia, renowned for the name of *Masaniſſa*; called of the Greekes the land Metagonitis. The Numidian Nomades, so named of changing their pasture, who carry their cottages or sheds (and those are all their dwelling houses) about with them vpon waines. Their townes be Cullu and Ruscade, from which 48 miles off within the Midland parts, is the colonie Cirta, furnished of the Cirtanes: another also within and a free borough town, named Bulla Regia. But in the vtmost coast, Tacatua, Hippo Regius, and the riuer Armua. The towne Tullaba, of Roman citizens: the riuer Tufca, which boundeth Numidia, and besides the Numidian marble, and great breed of wilde beasts, nothing is there else worth the noting.

CHAP. IV.

¶ Africa.

From Tufca forward, you haue the region Zeugitana, and the countrey properly called Africa. Three promontories, first the White; then anon that of *Apollo* ouer-against Sardinia: and a third of *Mercurie* opposite to Sicilie; which running into the sea make two creekes: the one Hipponensis, next to the towne which they call Hippo rased; the Greeks name it Diarrhyton, for the little brooks and rills that water the grounds: vpon this, there bordereth Thendalis, an exempt towne from tribute, but somewhat farther from the sea side; then the promontory of *Apollo*. And in the other creek, Vtica, a towne of Roman citizens, ennobled for the death of *Cato*, and the riuer Bagrada. A place called Castra Cornelia: and the colony Carthago, among the reliques and ruines of great Carthage, and the colony Maxulla: towns, Carpi, Misna, and the free borough Clupea vpon the promontorie of *Mercurie*. Item, free townes, Curubis, and Neapolis. Soone after ye shall meet with another distinction of Africke indeed. Libyphœnices are they called, who inhabit Byzacium; for so is that region named; containing in circuit 250 miles, exceeding fertile and plenteous, where the ground sowne yeeldeth again to the husband-man 100 fold increase. In it are free townes, Leptis, Adrumetum, Ruspina and Thapsus: then Thénæ, Macomades, Tacape, Sabrata, reaching to the lesse Syrtis: to which, the length of Numidia and Africa from Amphaga, is 580 miles: the breadth, of so much thereof as is knowne, 200. Now this part which wee haue called Africke, is diuided into prouinces twaine, the old and the new; separated one from the other by a fosse or ditch brought as farre as to Thénæ, within the Africane gulfe, which towne is 217 miles from Carthage: and that trench *Scipio Africanus* the second, caused to be made, & bare halfe the charges together with the KK. The third gulfe is parted into twaine, cursed and horrible places both, for the ebbing and flowing of the sea, and the shelles betweene the two Syrtis. From Carthage to the nearer of them, which is the lesse, is 300 miles by the account of *Polybius*: who saith also, that the said Syrtis is for 100 miles forward dangerous, and 300 about. By land also thither, the way is passable by obseruation of the Stars, at one time of the yeare onely, and that lyeth through desert sands and places full of serpents. And then you meet with Forrests replenished with numbers of wilde beasts. And within-forth Wildernesfes of Elephants: and soone after, waste deserts euen beyond the Garamantes, who from the Augilæ are distant twelue daies journey.
Aboue

About them was the nation of the Psylli, and about them the lake of *Diomedes* enuironed with desarts. Those Augylæ themselves are seated well neere in the middle way from Æthiopia, which bendeth Westward, and the countrie lying between the two Syrtis, with equall distance between of both sides: but the shore betweene the two Syrtis, of 250 miles. There standeth the citie Ocenus, the riuer Cinyps and the countrie. Townes, Neapolis, Taphra, Abrotonum, the other Leptis, called also the great. Then the greater Syrtis, incompassed 625 miles, and in direct passage 313. Next to it, there inhabit the people Cispades. In the inmost gulfe was the coast of the Lotophagi, whom some haue called Alachroas, as far as to the alters of Phylæna, and of sand are they. Next to them, not farre from the Continent, the vast and wide Meere admitteth into it the riuer Triton, and taketh the name of him: but *Callimachus* calleth it Pallantias, and saith it is on this side the lesser Syrtis; but many place it between both Cyrtes. The promontory that enclofes the bigger, is named Boryon. Beyond it is the prouince Cyrenaica. From the riuer Ampsaga to this bound, Africk contains 26 States, who are subiect to the Romane Empire: among which are six colonies besides the aboue-named, Vthina and Tuburbis. Townes endowed with Franchises of Roman citizens 15. Of which those in the midland parts, worthy to be named, are Azuritanum, Abutucence, Aborienfe, Canopicum, Chilmanense, Simittuense, Thunusidense, Tuburnicense, Tynidrumense, Tribigense, Vcitana twain, the greater and the lesse, and Vagienfe. One towne enjoying the liberties of Latium, Vsalitanum. One tributary or pensionary towne neere Castra Cornelia, paith custome and duties to Rome. Free townes 30, of which there are to be named within forth, Arolitanum, Acharitanum, Auinenfe, Abziritanum, Canopitanum, Melzitanum, Madaurenfe, Salaphitanum, Tusdritanum, Tiricenfe, Tiphicenfe, Tunicense, Theudenfe, Tagestenfe, Tigense, Vlusibritanum, another Vagenfe, Vigenfe and Zamenfe. The rest may well be called not only citices, but also for the most part, Nations, namely the Natadontes, Capsitani, Misulani, Sabarbares, Massili, Misues, Vamacures, Ethini, Massini, Marcubij, and Gætulia all and whole, euen to the riuer Nigritis, which parteth Affricke and Æthiopia.

CHAP. V.

¶ Cyrene.

THE region Cyrenaica, called also Pentapolitana, is famous and renowned for the Oracle of *Hammon*, which is from Cyrenæ 400 miles, for the fountaine of the Sunne, and principally for 5 cities, Berenice, Arsinoe, Ptolemais, Apollonia, and Cyrene it selfe. Berenice standeth vpon the vtmost winding and nouke of Syrtis, called somerim the city of the aboue-named Hesperides, according to the wandering tales of Greece. And before the towne, not far off, is the riuer Lethon, the sacred groue where the hort-yards of these Hesperides are reported to be. From Leptis it is 385 miles. From it stands Arsinoe, usually named Teuchira, 43 miles: and from thence 22 miles, Ptolemais, called in old time Barce. And then 250 miles off the promontory Phycus runs out along the Creticke sea, distant from Tanarus a cape of Laconia, 350 miles: but from Creet it selfe, 125 miles. And after it Cyrene, 11 miles from the sea. From Phycus to Apollonia is 24 miles; to Cherronefus 88: and so forth to Catabathmus 216 miles. The inhabitants there bordering, be the Marmaridæ, stretching out in length almost from Paratonium to the greater Syrtis. After them the Ararauceles: and so in the very coast and side of Syrtis, The Nasamones, whom before-time the Greekes called Mesammones by reason of the place, for that they were seated in the middest betweene the two quicke sands. The Cyrenaick countrie, for the space of 15 miles from the sea side, is fruitfull for trees: and for the same compass within the land, but for corne onely: but then for 30 miles in bredth, and 250 in length, for the gum Lafer and nothing else. After the Masamones, the Hasbitæ and Masæ do liue. Beyond them the Hammanientes, eleuen daies iournie from the greater Syrtis to the West, and euen they also euery way are compassed about with sands: howbeit they find without much ado pits almost in cubits deepe, for that the waters there of Mauritania do ouerflow. Houses they make themselves of salt, hewed out of their owne hills in maner of stone. From these to the Troglodites, in the Southwest coast is foure daies iournie, with whom they chaffer and traffick onely for a certaine precious stone or gem, which we call a Carbuncle, brought out of Æthiopia. There comes betweene, the countrie Phazania, lying toward the wilderness aboue said of Affricke, about the lesse Syrtis: where we subdued the nation of the Phazanij, together with the ci-

ties

A ties Alele and Cillaba. In like manner Dydamum ouer-against Sabrata. Next to whom there is a mountain, reaching a great way from the East into the West, called by our men Ater, naturally as it were burnt, & like as if it were scorched, and set on fire with the reflection of the Sun. Beyond that mountain are the desarts: also Matelga a towne of the Garamants, & likewise Debris, which casteth forth a spring of waters seething vp from noon to midnight exceeding hot: and for as many houres again into midday most chilling cold, also the most goodly towne Garama, the chiefe head of the Garamantes. All which places the Romanes haue conquered by force of armes, and ouer them *Cornelius Balbus* triumphed, the onely man of forreiners that was honoured with the triumphant chariot, and endowed besides with the freedome of Romane citizens. For why, being borne at Gades, he and his vnkle both, *Balbus* the elder, were made free denizens of Rome. And this is maruell that our writers haue recorded, that besides the townes abouenamed by him conquered, himselfe in his triumph caried the titles and pourtraictes not of Cydamus and Garama only, but also of all other nations and cities, which were ranged in a Roll, and went in this order, The towne Tabidium, the nation Niteris, the towne Neglimgela, the Nation Bubeium, the town Vel, the nation Enipi, the town Thuben, the hill named Niger. The towns Nitibrium and Rapfa, the nation Discera, the town Debris, the riuer Nathabur, the towne Taplagum, the nation Nannagi, the towne Boin, the towne Pege, the riuer Dasi-bari. And again forward, these townes lying one to another together, Baracum, Buluba, Alasi, Balsa, Galla, Maxala, and Zizama. The hill Gyri, wherein *Titus* hath reported that precious stones were engendred. Hitherto the way to the Garamants, was intricat and vnpassable, by reason of the robbers and theues of that country, who vsed to dig certain pits in the way (which to them that know the quarters of the countrey, is no hard matter to doe) and then couer them lightly ouer with sand. But in the last war which the Romans maintained against the Oenses, vnder the conduct and fortunate auspices of *Vespasian* the Emperor, there was found a short and neere way of foure daies iourney; & this way is called *Præter caput Saxi* (besides the rocks head) The frontier towne of Cyrenaica is called Catabathmos, which is a towne and a vaile all on a sudden falling with a steepe descent. To this bound, from the lesse Syrtis, Cyrenaica Africa lieth in length 1060 miles, and in bredth, for so much as is knowne, 800.

CHAP. VI.

¶ Libya Maracotis.

THE country following is named Marcotis Libya, and boundeth vpon Ægypt, inhabited by the Marmaridæ, Adymachidæ, and so forward with the Marcotæ. The measure of it from Catabathmos to Paretonium, is 86 miles. In that tract there lieth in the way betweene the village Apis, a place renowned for the religious rites of Ægypt. From it to Paratonium are 12 miles. From thence to Alexandria 200 miles: the bredth thereof is 169 miles. *Eratosthenes* hath deliuered in writing, that from Cyrenæ to Alexandria by land is 525 miles. *Agrippa* saith, that the length of all Africk from the Atlanticke sea, together with the inferiour part of Ægypt containeth 3040 miles. *Polybius* and *Eratosthenes*, reputed to haue bin most exact and curious in this kinde, set downe, from the Ocean to great Carthage 1600 miles. From thence to Canopicum the nearest mouth of Nilus, they make 1630 miles. *Isidore* reckoneth from Tingi to Canopus 3599 miles. And *Artemidorus* forty lesse than *Isidorus*.

CHAP. VII.

¶ Islands about Affricke, and oueragainst Affricke.

THESE seas haue not very many Islands within them. The fairest of them all is Meninx, 35 miles long, and 25 broad, called by *Eratosthenes* Lotophagitis. Two townes it hath, Meninx on Affricke side, and Thoar on the other: it selfe is scituate from the right hand promontorie of the lesse Syrtis 200 paces. A hundred miles from it against the left hand is Cercina, with a free towne of the same name, in length it is 25 miles, and halfe as much in bredth where it is most; but toward the end not aboue fiue miles ouer. To it there lieth a pretty little one toward Carthage called Cercinitis, & ioineeth by a bridge vnto it: from these almost 50 miles, lies Lopadusa six miles long. Then, Gaulos and Galata: the earth whereof killeth the Scorpion, a fell

* Or 1500 paces, a mile and a half.

crea-

creature, and noisome to Africke. Men say also that they wil die in Clupea, ouer against which lieth Corfyra, with a towne. But against the gulf of Carthage be the two Æginori, rocks more like than Islands, lying most between Sicily and Sardinia. There be that write how these sometime were inhabited, but afterwards sunke downe and were couered.

CHAP. VIII.

¶ The Æthyopians.

BVt within the inner compasse and hollow of Africke toward the South, & about the Gætulians, where the deserts come between, the first people that inhabit those parts, be the Libij Ægyptij, and then the Leucæthiopes. About them are the Æthyopian nations, to wit, the Nigritæ, of whom the riuer tooke name: the Gymetes, Pharusi, and those which now reach to the Ocean, whom we speake of in the marches of Mauritania, namely, the Perorsi. From all these, it is nothing but a wilderness Eastward, till you come to the Garamantes, Augylæ, and Troglodites, according to the most true opinion of them, who place 2 Æthyopiae about the deserts of Africk, and especially of *Homer*, who saith, that the Æthyopians are diuided 2 waies, namely, East and West. The riuer Nyger is of the same nature that Nilus. It bringeth forth Reed and Papyr, breederth the same liuing creatures, and riseth or swelleth at the same seasons. It springeth betwene the Tareleia Æthyopians, and the Oecalicæ. The towne Mavin belonging to this people, some haue set vpon the wilderness, as also, neere vnto them, the Atlantes, the Ægipanes, halfe wilde beasts, the Blemmyi, the Gamphasants, Satyres, & Himantopodes. Those Atlantes if we will beleue it, degenerate from the rites and manners of all other men. For neither call they one another by any name; and they look wistly vpon the Sun, rising, & setting, with most dreadful curses, as being pernicious to them & their fields; neither dream they in their sleep as other men. The Troglodites dig hollow caues, and these serue them for dwelling houses: they feed vpon the flesh of serpents. They make a gnashing noise, rather than utter any voice, so little vse haue they of speech one to another. The Garamants liue out of wedlock and conuerse with their women in common. The Augylæ do now worship to any but to the diuels beneath. The Gamphasantes bee all naked, and know no Wars, and sort themselues with no forrainer. The Blemmyi, by report haue no heads, but mouth and eies both in their breast: the Satyres besides their shape only, haue no properties nor fashions of men. The Ægipanes are shap'd, as you see them commonly painted. The Himantopodes be some of them limber legged and tender, who naturally go creeping on the ground. The Pharusi, sometime Persæ, are said to haue bin the companions of *Hercules*, as he went to the Hesperides. More of Africke worth the noting, I haue not to say.

CHAP. IX.

¶ of Asia.

VNto it ioineth Asia, which from the mouth of Canopus vnto the mouth of Pontus, after *Timosthenes* 2639 miles. From the coast of Pontus to that of Mæotis, *Eratosthenes* saith, is 1545 miles. The whole, together with Egypt vnto Tanais, by *Artemidorus* and *Isidorus*, taketh 8800 miles. Many seas there be in it, taking their names of the borderers; and therefore they shall be declared together with them. The next country to Africk inhabited, is Ægypt, lying far within forth to the South, so far as the Æthyopians, who border vpon their backs. The nether part thereof the riuer Nilus, diuided on the right hand and the left, by his clasping doth bound and limit, with the mouth of Canopus from Africke, with the Pelusiacke from Asia, and carrieth a space between of 170 miles. Whereupon, considering that Nilus doth so part it self, some haue reckoned Egypt among the Islands, so as it maketh a triangular figure of the land. And here it is that many haue called Ægypt by the name of the Greeke letter Delta, Δ. The measure of it from the channell where it is but one, and from whence it beginneth first to part into skirts and sides, vnto the mouth of Canopus, is 146 miles; and to the Pelusiack 256: the vppermost part thereof bounding on Æthiopia, is called Thebais. Diuided it is into townships with feuerall iurisdctions, which they call Nomos; to wit, Ombites, Phatuities, Apollopolites, Hermonhites, Thinites, Phanturites, Caprites, Tentyrites, Diospalites, Antæopolites, Aphroditopolites,

Alites, and Lycopolites. The country about Pelusium, these town-ships with their feuerall iurisdctions, Pharoëtes, Bubastites, Sethroites, & Tanites. The rest haue these following, the Arabick, the Hammoniacke which extendeth to the Oracle of *Iupiter Hammon*, Oxyrinchites, Leontopolites, Atarrabites, Cynopolites, Hermopolites: Xoites, Mendefins, Sebennaites, Capastites, Latapolites, Heliopolites, Prosopites, Panopolites, Busirites, Onophites, Sorites, Ptenethu, Pthenophu, Naucratis, Nitrites, Gynæopolites, Menelaïtes, in the country of Alexandria. In like manner of Libya Marcotis. Heracleopolites is in the Island of Nilus, fiftie miles long, wherein also is that which they call *Hercules* his town. Two Arsinoites there be they, and Memphites reach as farre as two the head of Delta. Vpon it there do bound out of Affrica the two Ouasitæ. There be that change some names of these, and set down for them other iurisdctions, to wit, Heroopolites, and Crocodilopolites. Between Arsinoites and Memphites there was a lake 250 miles about, or as *Mutianus* saith, 450, fifty paces deep, [i. 150 foot,] & the same made by mans hand, called the Lake Meridis, of a king who made it. 72 miles from thence is Memphis, the castle in old time of the Ægyptian kings. From which to the Oracle of *Hammon* is twelue daies iournie, & so to the diuision of Nilus, which is called Delta, fifteen miles. The riuer Nilus rising from vnkowne springs, passeth thorow deserts and hot burning countries: and going thus a mighty way in length, is known by fame onely, without armes, without wars, which haue discouered and found out all other lands. It hath his beginning, so far forth as *Tabo* was able to search and find out, in a hil of the lower Mauritania, not far from the Ocean, where a lake presently is seen to stand with water, which they call Nilides. In it are found these fishes called Alabetæ, Coracini, Siluri, and the Crocodile. Vpon this argument & presumption Nilus is thought to spring from hence, for that the pourtraict of this source is consecrated by the said prince at Cæsaria, in Iseum, and is there at this day seene. Moreouer, obserued it is, that as the Snow or rain do satisfie the country in Mauritania, so Nilus doth encrease. When it is run out of this lake, it scorneth to run through the sandy and ouergrown places, and hides himself for certaine daies iourny. And then soone after out of a greater lake, it breaketh forth in the country of the Massæyli, with Mauritania Cæsarienses, and looks about viewing mens company, carrying the same arguments still of liuing creatures bred within it. Then once again being receiued within the sands, it is hidden a second time for twenty daies iourny, in the deserts as farre as to the next Æthiopes: and so soone as hee hath once againe espied a man, forth hee startes (as it should seem) out of that spring, which they called Nigris. And then diuiding Africk from Æthiopia, being acquainted, if not presently with people, yet with the frequent company of wild and sauage beasts, and making shade of woods as he goes he cuts through the midst of the Æthiopians: there surnamed Astapus, which in the language of those nations signifieth a water flowing out of darkenesse. Thus dasheth he vpon such an infinite number of Islands, and some of them so mighty great, that albeit he bare a swift streame, yet is he not able to passe beyond them in lesse space than 5 daies. About the goodliest and fairest of them Meroc, the channell going on the left hand is called Astabores, that is, the branch of a water coming forth of darkenesse: but that on the right hand Astufapes, which is as much as, lying hid, to the former signification. And neuer taketh the name of Nilus, before his waters meet againe & accord all whole together. And euen so was he aforetime named Siris, for many miles spacer and of *Homer* altogether Ægyptis: and of others, Triton: here and there, and euer and anon hitting vpon Islands, and stirred as it were with so many prouocations: and at the last enclosed and shut within mountaines, and in no place he caries a rougher and swifter stream, whiles the water that he beareth, hastens to a place of the Æthiopians called Catadupi, where in the last fall among the rockes that stand in his way, he is supposed not to runne, but to rush downe with a mighty noise. But afterwards he becomes more milde and gentle, as the course of his streame is broken, and his violence tamed and abated, yea, and partly wearied with his long way: and so though with many mouths of his, he dischargeth himselfe into the Ægyptian sea. Howbeit at certaine set daies he swelleth to a great height: and when he hath trauelled all ouer Ægypt, hee ouerfloweth the land, to the great fertility and plenty thereof. Many and diuers causes of this rising and increase of his, men haue giuen: but those which carry the most probabilitie, are either the rebounding of the water, driuen back by the winds Etēfæ, at that time blowing against it, and driuing the sea withall vpon the mouths of Nilus: or else the Summer rain in Æthiopia by reason that the same Etēfæ bring clouds thither from other parts of the world. *Timanus* the

Mathematician,alledged an hidden reason therof,to wit,that the head and source of Nilus is named Phyla, and the riuer it selfe is hidden,as it were drowned within certain secret trenches within the ground, breathing forth vapors out of reeking rockes,where it thus lieth in secrete. But so soone as the sunne during those daies,commeth neere, drawne vp it is by force of heate, and so all the while he hangeth aloft,ouerfloweth:and then againe for feare he should be wholly deuoured and consumed, putteth in his head againe and lieth hid. And this happeneth from the rising of the dog starre Sicius, in the Sunnes entrance into Leo, while the planet standeth plumbe ouer the fountaine afore said: for as much as in that climate there are no shadows to be seene. Many againe were of a different opinion, that a riuer floweth more abundantly, when the Sunne is departed toward the North pole, which happeneth in Cancer and Leo: and therefore at that time is not so easily dried: but when he is returned once againe back toward Capricorn and the South pole, it is drunke vp, and therefore floweth more sparsely. But if according to *Ti-
mans* a man would thinke it possible that the water should be drawne vp, the want of shadowes during those daies, and in those quarters, continueth still without end. For the riuer begins to rise and swell at the next change of the Moone after the Sun-steed, by little and little gently, so long as he passeth through the signe Cancer, but most abundantly when he is in Leo. And when he is entred Virgo, he faileth and setteth low againe, in the same measure as he rose before. And he is cleane brought within his bankes in Libia, which is, as *Herodotus* thinketh, by the hundreth day. All the whiles it riseth, it hath been thought vnlawfull for kings or gouernours to faile or passe in any vessell vpon it, and they make conference so to do. How high it riseth, is known by markes and measures taken of certaine pits. The ordinary height of it is sixteen cubits. Vnder that gage the waters ouerflow nor all. Aboue that stint there are a let and hinderance, by reason that the later it is ere they be fallen, and downe againe. By these, the seed time is much of it spent, for that the earth is too wet. By the other there is none at all, by reason that the ground is dry and thirsty. The prouince taketh good keep and reckoning of both, the one as well as the other; For when it is no higher than 12 cubits, it findeth extreame famine: yea, and at 13 it feeleth hunger still, 14 cubits comforts their hearts, 15 bids them take no care, but 16 affoordeth them plenty and delicious dainties. The greatest flood that euer was knowne vntill this daies was 18 cubits, in the time of Prince *Claudius* Emperor: and the least, in the Pharsalian warre, against the death of *Pompey*: as if the very riuer by that prodigious token lothed to see the same. When at any time the waters seeme to stand and couer the ground still, they are let out at certaine sluices, or flood-gates drawne vp and set open. And so soon as any part of the land is freed from the water, straight waies it is sowed. This is the only riuer of all others that breatheth out nowind from it. The Seignory & dominion of Egypt beginneth at Syene, the frontier rowne of Ethiopia. For that is the name of a demy Island 100 miles in compasse, wherein are the Cerastra vpon the side of Arabia: and ouer against it the 4 Islands Philæ, 600 miles from the partition of Nilus, where it began to be called Delta, as wee haue said. This space of ground hath *Artemidorus* deliuered, and withall, that within it were 250 townes. *Iuba* setteth down 400 miles. *Aristocreon* saith, that from Elephantis to the sea is 750 miles. This Elephantis being an Island, is inhabited beneath the lowest cataract or fall of water 3 miles, and aboue Syene 16: and it is the vtmost point that the Egyptians saile vnto, & is from Alexandria 586 miles. See how far the Authors aboue written, haue erred and gone out of the way: there meet the Ethiopian ships, for they are made to fold vp together, and carry them vpon their shoulders, so often as they come to those cataracts or downefalls afore-said. Egypt ouer and aboue all other their boast and glory of antiquitie, brags that in the raigne of king *Amasis*, there were inhabited in it and peopled twenty thousand cities. And euen at this day full it is of them, such as they be, and of base account. Howbeit, that of *Apollo* is much renowned, as also neere vnto it another of Leucathæa, and * *Diospolis* the great, the very same that Thebes, famous for the 100 gates in it. Also, *Captos*, a great mart towne next to Nilus, much frequented for merchandise and commodities out of India and Arabia. Moreouer the towne of *Venus*, and another of *Iupiter*, & *Tentyris*, beneath which standeth Abydus, the royall seate of *Memnon*, and *Osiris* renowned for the temple there, seven miles and an halfe distant from the riuer, toward Lybia. Then *Ptolemais*, *Panopolis*, and another yet of *Venus*. Also in the Lybian coast, *Lycon*, where the hills doe bound Thebais. Soone after, these townes of *Mercurie*, *Alabaston*, *Canum*, and that of *Heracles* spoken of before. After these, *Arfinoe*, and the aboue-said *Memphis*, betweene which and

* i. Theeitie
or Iupiter:

A and the dioecesse *Arfinoetis*, in the Lybian coast, the towers called *Pyramides*, the Labyrinth built vp in the lake of *Mæris* without any iot of timber to it, and the town *Crialon*. One more besides, standing within-forth and bounding vpon Arabia, called the towne of the Sunne, of great account and importance.

CHAP. X.

¶ Alexandria.

B Vt right worthy of praise is Alexandria, standing vpon the coast of the Egyptian sea, built by *Alexander* the Great on Africke side, 12 miles from the mouth of Canopus, neere to the lake *Mareotis*, which was before-time called * *Arapotes*. *Danaochares* the Architect (a * *Rachobes* man renowned for his singular wit many waies) aid the modell and platforme therof by a subtil and witty deuise; for hauing taken vp a circuit of 15 miles for the city, he made it round like to a Macedonian cloke, full in the skirts, bearing out into angles and corners, as well on the right hand as the left, so as it seemed to lie in folds and plaits; and yet euen then he set out one fifth part of all this plot for the kings palace. The lake *Mareotis* from the South side, meeteth with an arme of the riuer Nilus, brought from out of the mouth of the said riuer called *Canopicus*: for the more commodious trafficke and commerce out of the firme ground and inland Continent. This lake containeth within it sundry Islands, and (according to *Claudius Caesar*) it is thirty miles ouer. Others say, that it lieth in length 40 *Schoeni*, and so, whereas euery *Schoene* is 30 stadia, it commeth by that account to be 150 miles long, and as many broad. Ouer and besides, there be many goodly faire towns of great importance, standing vpon the riuer Nilus where he runneth, and those especially which haue giuen name to the mouthes of the riuer, and yet not to all those neither (for there be 11 of them in all, ouer and besides foure more, which they themselves call bastard mouthes) but to 7 of the principall: to wit, vpon that of Canopus, next vnto Alexandria; then *Bolbitinum*, and so forth to *Sebenniticum*, *Phatuiticum*, *Mendesicum*, *Taniticum*, and last of all *Pelusiaticum*. Other cities there be besides, to wit, *Buros*, *Pharboetos*, *Leontopolis*, *Achribris*, *Isis* towne, *Bufiris*, *Cynophis*, *Aphrodites*, *Sais*, *Naucratis*, of which some thinke the mouth *Naucraticum* tooke the name, which they be that call *Heracleoticum*, preferring it before *Canopicum*, next vnto which it standeth.

CHAP. XI.

¶ Arabia [the Desert or Petrae.]

B Eeing once past that arme of the riuer Nilus, which entereth into the sea at *Pelusium*, you come into Arabia, confining vpon the red sea; and that other Arabia, so rich & odoriferous, and therefore renowned with the synname of *Happie*. As for this desert Arabia, possessed it is by the *Catabanes*, *Esbonites*, and *Srenite* Arabians: all barren and fruitlesse, saue whereas it meeteth with the confines of Syria, and setting aside the mountaine *Casius*, nothing memorable. This region confronteth the Arabians *Canchlei* on the East-side, and the *Cedraei* Southward, and they both confine together afterwards vpon the *Nabathæes*. Moreover, 2 Baies there be, the one called the gulf of *Heroopolis*, and the other of *Elani*; both in the red sea on the coast of Egypt, 50 miles distant, betweene two townes, *Elana*, and *Gaza*, which is in our (*Mediterranean*) sea. *Agrippa* counteth from *Pelusium* to *Arfinoe*, a towne scituate vpon the red sea, an hundred and foue and twenty miles. See how small a way lyeth betweene two Climates so different in Nature.

CHAP. XII.

¶ Syria, Palestine, Phænice.

F Vpon the coast of the said Arabia, confineth Syria; a Region in times past, the chiefe and most renowned vpon earth; and the same distinguished by sundry names. For where it confineth vpon the Arabians, called it was *Palestina*, *Iurie*, *Coele* Syria, and afterward, *Phoenice*. But go farther within the firme land, *Damascene*. Turne more still Southwards, it is named *Babylonia*. And the same, between the riuers *Euphrates* and *Tygris*, carrieth the name

of Mesopotamia. Beyond the mountaine Taurus, it is Sophene; but on this side the hill, they call Comagene. The country beyond Armenia, is Adiabene, named before-time Assyria: but the marches of Syria, which confront Cilicia, is knowne by the name of Antiochia. The whole length of Syria, from the frontiers of Cilicia to Arabia, containeth 470 miles: the breadth between Seleucia Pieria, to Zeugina, a towne seated vpon Euphrates, taketh 175 miles. They that make a more subtill and particular diuision, would haue Phoenice to be enuironed with Syria. And first, as you come from Arabia, is the sea-coast of Syria, which compriseth in it Idumæa & Iudæa; then you enter into Phoenicia, and so into Syria again, when you are past Phoenicia. And within-forth farther into the country, Phoenice is inclosed with Syria Damascena. All that sea yet, which beateth vpon that coast, beareth the name of the Phœnician sea. As for the nation it selfe of the Phœnicians, haue been highly reputed for their Science and learning, and namely, for the first inuention of letters, for their knowledge in Astrologic, nauigation, and martial skill. Being past Pelusium, you come to a city called Chabria: Castra to the mountain Casius, and the temple of *Iupiter Casius*: also the tombe of *Pompeius Magnus*; and last of all to the city Ostracium. To conclude, from Pelusium to the frontiers of Arabia the Desart [alongst the coast of Syria] are 65 miles.

CHAP. XIII.

¶ *Idumæa, Syria, Palestina, Samaria.*

Soon after beginneth Idumæa & Palestina, euen from the rising vp of the lake Sirbon, which some haue reported to carry a circuit of 150 miles. *Herodotus* saith, it is hard vnder the foot of the hill Casius: but at this day it is but a small lake. As for the towns there, they be Rhinocolura, and more within the land, Rhaphæa: also Gaza a port towne, and farther within, Anchedon, and the mountain Angoris. From thence you descend to the coast of Samaria, the free citie Ascalon, and Azotus; the two Iamnes, whereof the one is well within the land; and so forward to Ioppe, a towne in Phœnicia, which by report, is more antient than the deluge. Scituate it is vpon a hill, with a rocke before it, wherein are to be seen the tokens and reliques of Lady *Andromedaes* prison where she was bound. Within a chappell there, the Siren *Deceito*, whereof the Poets tell such tales, is worshipped. Being past Ioppe, you meet with Apollonia: the towne of Strato, called also Cæsarea, founded by *K. Herod*: it beareth now the name of Prima Flauia, a colony there planted and endowed with priuiledges by *Vespasian* the Emperor. The bounds of Palestina be 180 miles from the confines of Arabia: and there entreth Phœnicie. Within-forth in the country, are the townes of Samaria, and Neapolis, which before-time was named Mamortha (or Maxbota.) Also Sabaste vpon the mountain; and Gamala, which yet standeth higher than it.

CHAP. XIII.

¶ *Iurie and Galilæa.*

A Boue Idumæa and Samaria, Iudæa spreadeth out far in length and breadth. That part of it which ioineth to Syria, is called Galilæa: but that which is next to Syria and Egypt, is named Peræa, [i. beyond Iordan.] Full of rough mountaines dispersed here and there: and feuered it is from other parts of Iury, by the riuier Iordan. As for the rest of Iudæa, it is diuided into ten gouernments or territories, called Toparchies, in this order following: to wit, that of Hiericho, a vaile richly planted with Date trees: Emmaus, well watered with fountaines: Lydda, Ioppica, Accrabatena, Gophnitica, Thamnitica, Betholene, Tephene, and Orine, wherein stood Ierusalem, the goodliest citie of all the East parts, and not of Iury onely. In it also is the principallitie Herodium, with a famous towne of that name.

CHAP. XV.

¶ *Iordane the Riuer.*

The riuier Iordan springeth from the fountaine Paneades, which gaue the Syname to the citie Cæsarea, whereof we will speake more. A pleasant riuier it is, and as the site of the country will permit and giue leaue, winding and turning in and out, seeking as it were for

A loue and fauour, and applying it selfe to please the neighbor inhabitants. Full against his will, as it were, he passeth to the lake of Sodom, Asphaltites, that ill-fauored and curied lake: and in the end falleth into it, and is swallowed vp of it, where amongst those pestilent and deadly waters, he loseth his owne that are so good and wholesome. And therefore to keep himselfe out of it as long as he possibly could, vpon the first opportunity of any vallies, hee maketh a lake, which many call Genesara, which is 16 miles long, and 6 broad. The same lake is enuironed with diuers faire and beautifull townes; to wit, on the East side, with Iulias and Hippo; on the South, with Tarichea, of which name, the lake by some is called Tarichion; and on the West, with Tiberias, an healthfull place for the baines there of hot waters.

CHAP. XVI.

¶ *Asphaltites.*

A Asphaltites, or the lake of Sodom, breedeth and bringeth forth nothing but Bitumen, and thereupon it tooke the name. No liuing body of any creature doth it receiue into it: buls and camels swim and stoe aloft vpon it. And hereupon ariseth that opinion which goeth of it, That nothing there wil go downe and sink to the bottome. This lake in length exceedeth 100 miles, 25 miles ouer it is at the broadest place, and six at the narrowest. On the East, the Arabian Nomades confront it; and on the South side, Macharus regardeth it: in time past, the second fortresse of Iudæa, and principall next to Ierusalem. On the same coast, there is a fountain of hot waters, wholesome and medicinable, named Callirhoe, and good against many diseases.

C The very name that it carrieth, importeth no lesse praise and commendation.

CHAP. XVII.

¶ *The people Esseni.*

A Long the West coast inhabit the Esseni. A nation this is, liuing alone and solitarie, and of all others throughout the world most admirable and wonderfull. Women they see none: carnal lust they know not; they handle no mony; they lead their life by themselves, and keepe company onely with Date trees. Yet neuerthelesse, the countrey is euermore well peopled, for that daily numbers of strangers resort thither in great frequence from other parts: and namely, such as be weary of this miserable life, are by the surging waues of frowning fortune driuen hither, to sort with them in their manner of liuing. Thus for many thousand yeares [a thing incredible, and yet most true] a people hath continued without any supply of new breed and generation. So mightily increase they euermore, by the wearisome estate & repentance of other men. Beneath them stood sometime Engadda, for fertilitie of soile and plenty of Date-tree groues, accounted the next city in all Iudæa, to Ierusalem. Now, they say, it serueth for a place only to inter their dead: beyond it, there is a castle or fortresse scituate on a rock, and the same not far from the lake of Sodom Asphaltites. And thus much as touching Iudæa.

CHAP. XVIII.

¶ *Decapolis. [i. Cæle-Syria.]*

T Here ioyneth to it on Syria side, the region Decapolis, so called of the number of towns and cities in it. Wherein, all men obserue not the same, nor make like account: howbeit most men speake of Damascus and Opatos, watered with the riuier Chrysorrhœa. Also, Philadelphia, renowned for the fruitfull territory about it. Moreouer, of Scythopolis, taking name of the Scythians there planted: and before-time Myla, so named of Prince or Father *Bacchus*, by reason that his nource there was buried. Also Gadara, scituate on the riuier Hieromias; running euen before it. Besides, the aboue-named Hippos Dios. Likewise Pella, enriched with the good fountains: and last of all, Galaza and Canatha. There lie betweene and about these cities, certaine Royalties called Triarchies, containing euery one of them as much as an whole country: and reduced they be as it were into feuerall countries; namely, Trachonitis Panias, wherein standeth Cæsarea, with the fountain aboue-said, Abila, Arca, Ampeloesia, and Gabe.

The fifth Booke of

CHAP. XIX.

¶ Tyre and Sidon.

Returne now we must to the sea-coast of Phœnice. A riuer runneth there called Crocodilon, whereupon stood a towne in times past bearing the name. Also there remain in those parts the bare reliques still of cities, to wit, Dorum, Sycaminum, the cape or promontory Carmelum; and a towne vpon the hill so named; but in old time called Ecbatana. Neere thereto Getta and Iebba; the riuer Pagida or Pelus, carrying chrystall glasse with his sands vpon the shore. This riuer commeth out of the meere Ceudeuia, from the foot of mount Carmel. Neere vnto it is the city Ptolemais, erected in forme of a colony, by *Claudius Caesar*; in ancient time called Are. The towne Ecdippa, and the cape Album. Then followes the noble citie Tyrus, in old time an Island, lying almost 3 quarters of a mile within the deepe sea; but now, by the great trauell and deuises wrought by *Alexander the Great* at the siege thereof, ioyned to the firme ground; renowned, for that out of it haue bene three other cities of ancient name, to wit, Lep-tis, Vtica, and that great Carthage, which so long stroue with the Empire of Rome for the monarchy and dominion of al the whole world; yea, and Gades, diuided as it were from the rest of the earth, were peopled from hence. But now at this day all the reputation and glory thereof, stands vpon the die of purple & crimfon colors. The compasse of it is 19 miles, so ye comprise Palætyrus within it. The very towne it selfe alone, taketh vp 22 stadia. Neere vnto it are these townes, Luhadra, Sarepta, and Ornython; also Sydon, where the faire and cleer glasse be made, and which is the mother of the great citie Thebes in Bœotia.

CHAP. XX.

¶ The mount Libanon.

Behind it, beginneth the mount Libanus, and for 1500 stadia reacheth as farre as to Smyrna, whereas Cœle-Syria takes the name. Another promontory there is as big ouer-against it, called Antilibanus, with a vallie lying betweene, which in old time ioyned to the other Libanus with a wall. Being past this hill, the region Decapolis sheweth it selfe to you within-forth, called Decapolis; and the aboue-named Tetrachies or Realmes with it, and the whole largenesse that Palestine hath. But in that coast and tract still along the foot of the mount Libanus, there is the riuer Magoras; also the colonie Berytus, called Fœlix Iulia. The towne Leontos; the riuer Lycos; also Palæbyblos, [i.e. Byblos the old.] Then ye come vpon the riuer Adonis, and so to these townes, Byblos [the new,] Borrys, Gigarta, Trieris, Calamos, and Tripolis, vnder the Tyrians, Sydonians, and Aradians. Then meet you with Orthosia, and the riuer Eleutheros. Also these townes, Simyra, Marathos; and ouer-against, Aradus, a towne of seuen stadia: and an Island lesse than a quarter of a mile from the Continent. When you are once past the countrie, where the said mountaines doe end, and the plaines lying betweene, then beginneth the mount Bargylis; and there, as Phœnice endeth, so begins Syria againe. In which countrie are Carne, Balanea, Paltos, and Gabale; also the Promontorie, whereupon standeth the free city Laodicea, together with Diospolis, Heraclea, Charadrus, and Posidium.

CHAP. XXI.

¶ Syria, Antiiochena.

Go forward in this tract, and you shall come to the cape of Syria Atiochena: within-forth is seated the noble and free citie it selfe Antiiochena, surnamed Epidaphne: through the mids whereof runneth the riuer Orontes. But vpon the very cape, is the free citie Seleucia, named also Pieria.

CHAP. XXII.

¶ The mount Casius.

Aboue the citie Selencia, there is another mountaine named Casius, as well as that other, which confronterh Arabia. This hill is of that heighth, that if a man be vpon the top of it in the darke night season, at the reliefe of the fourth watch, he may behold the Sunne arising

Plinies Naturall History.

A sing. So that with a little turning of his face and body, hee may at one time see both day and night. To get vp by the ordinary high-way to the very pitch of it, a man might fetch a compass of 19 miles; but climbe directly vpright it is but 4 miles. In the borders of this country runs the riuer Orontes, which ariseth between Libanus and Antilibanus, neere to Heliopolis. Then the towne Rhotos appears: and behind it, the streight passages and gullets betwixt the mountaines Rhotij and Taurus, which are called Portæ Syriæ. In this tract or coast stands the town Myriandros, the hill Avanus (where is the towne Bomilæ, which separateth Cilicia from the Syrians).

CHAP. XXIII.

¶ Cœle-Syria, [or high Syria.]

It remaineth now to speake of the townes and cities in the midland parts within the firme land: and to begin with Cœle Syria, it hath in it Apamia, separated from the Nazerines tetrarchy by the riuer Marfia: likewise Bambyce, otherwise called Hierapolis; but of the Syrians, Magog. There is honored the monstrous idoll of the Meermaid, Atargatis, called of the Greeks Decreto. Also Chalcis, with this addition, Vpon Belus: from which the region Chalcidene, most fertile of all Syria, taketh name. Then haue you the quarter Cyrrhistica, with Cirrus, Gazata, Gindarenes, and Gabenes. Moreouer, two Tetrarchies, called Granucomatae. Moreouer, the Hemisenes, Hylates, the Itureans country (and principally those of them who are named Betarani) and the Mariammitanes. The Tetrarchie or Principalitie named Mam-milea, the city Paradisus, Pagra, Pinarites, and two Seleucia, besides the aboue named, one called, Vpon Euphrates; and the other, Vpon Belus: and last of all, the Carditenses. The rest of Syria hath these States (besides those which shall be spoken of with the riuer Euphrates) the Arethusians, Berrenses, and Epiphanenses: and Eastward, the Laodicenes, namely those who are entituled, Vpon Libanus: the Leucadians and Larissæans: besides 17 Tetrarchies reduced into the forme of realmes, but their names are barbarous.

CHAP. XXIV.

¶ Euphrates.

And here me-thinks is the fittest and meetest place to speake of Euphrates. The source of it, by report of them that saw it last and neere, is in Caranitis, a state vnder the gouernment of Armenia the greater: and those are *Domitius* and *Corbulo*, who say, that it springeth in the mountaine Aba. But *Licinius Mutianus* affirmeth, that it issueth from vnder the foot of the mountaine which they call Capotes, 12 miles higher into the countrey than is Simyra: and that in the beginning it was called Pyxirates. It runs first directly to Derxene, and so forth to Ana also, excluding the regions Armenia, the greater as well as the lesse, from Cappadocia: The Dastusæ from Simyra are 75 miles: from thence it is nauigable to Pæstona, 50 miles: from it to Melitene in Cappadocia, 74 miles. So forward to Elegia in Armenia, ten miles; where he receiueh these riuers, Lycus, Arsanus, and Arsanus. Neere to Elegia he meeteth afront with the hil Taurus: yet stayeth he not there, but preuaileth a pierceth thorow it, although it beare a bredth there of 12 miles. At this entry where he breaketh thorow the hill they cal him Omiras, and so soon as he hath made way and cut thorow it he is named Euphrates. Being past this mountaine, he is full of rocks and very violent: howbeit he passeth through the country of the Moeri, where he carieth a stream of 3 Schoenes bredth, where he parts Arabia on the left hand, from Comagene on the right. And neuertheless, euen there whereas he conquereth and getteth the vpper hand of Taurus, he can abide a bridge to be made ouer him. At Claudiopolis in Cappadocia he courseth Westward: and now the mountain Taurus, though resisted and overcome at first, impeacheth and hindereth him of his way, and notwithstanding (I say) he was ouermatched and dismembred one peece from another, he gets the better of him another way, breaking his course now, and drining him perforce into the South. Thus Nature seems to match the forces of these two champions equally in this maner, That as Euphrates goes on still without stay as far as he will, so Taurus will not suffer him yet to run what way he wil. Now when these Cataracts and downfalls of the riuer are once past, it is nauigable againe, and forty miles from that place

place standeth Samosata the head city of Comagena. Now hath Arabia beside the townes afore said, Edeffa, sometime called Antiochea, Callinchoe, taking name of the fountain : and Carra, so famous and renowned for the defeature there of *Craffus* and his army. Hereunto ioineeth the gouernment and territorie of Mesopotamia, which also taketh the first beginning from the Assyrians, in which stand the townes Anthemusa and Nicephorium. Hauing passed this country, ye straitway enter vpon the Arabians called Rhetavi, whose capitall city is Singara. Now to returne to Samosata, from it in the coast of Syria, the riuer Marfyas runneth into Euphrate. As Gingla limiteth Comagene, so the land of the Meri beginneth there. The towns Epiphania and Antiochia haue the riuer running close to them, and hereupon they haue this addition in their names, Standing vpon Euphrates. Zenyma likewise, 72 miles from the Samosata, is innobled for the passage ouer Euphrates : for ioined it is to Apamia, right against, by a bridge, which *Seleucus* the founder of both caused to be made. The people that ioine hard to Mesopotamia be called Rhoali. As for the townes of Syria which be vpon this riuer, are Europum, Thapsicum in times past, at this present Amphipolis ; and last of all the Arabian Scenitum. Thus passeth Euphrates, as far as to the land Vra, where turning his course to the East, hee leaueth behinde him the Desarts of Palmyra in Syria, which reach to the city Petra, and to the country of Arabia Foelix.

CHAP. XXV.

¶ *Palmyra.*

THe noble city Palmyra is passing well seated, as well for the riches of the soile, as for abundance of waters, which imbelish and set out the country on euery side. As rich and long as it is, the territory all about is inuironed and inclosed with bars of sand. And as if Nature had a desire to exempt it from all other lands to liue apart in peace, shee hath set it iust in the middest and confines, between two puissant and mighty empires, to wit, the Romans and Parthians : for there is not so soone any war proclaimed between those two States and Monarchies, but at first they haue on both sides a regard of it as a neutre. It is from Seleucia of the Parthians, namely that vpon Tigris, 537 miles : and from the next port or coast of Syria, 252 : and from Damasco 27 neerer.

CHAP. XXVI.

¶ *Hierapolis.*

Beneath the desarts and wildernesse of Palmyra lieth the country Stelendena, wherein are the cities named at this day Hierapolis, Bercea, and Chalcis. Beyond Palmyra also, Hemesa taketh vp some part of those said desarts : and likewise Elutium, neerer to Petra by one halfe than is Damascus. And next to Asura standeth Philiscum, a towne of the Parthians vpon Euphrates : from which by water it is a iourney of ten daies to Seleucia, and from thence as many likewise to Babylon : for Euphrates, 83 miles from Zeugma, about the village Massice, diuideth it selfe into two armes. On the left side he passeth into Mesopotamia, euen thorow Seleucia, and about it entred into the riuer Tygris, which runneth hard by : but on the right hand he carieth a current in his chanell toward Babylon, the chiefe city sometime of Chaldaea, and passing through the midst thereof, as also of another called Otris, he parts asunder into sundry lakes and meeres. And there an end of Euphrates. He riseth and falleth at certain times after the order of Nilus : yet some little difference there is betweene them in the manner, for he ouerfloweth Mesopotamia when the Sun is in the 20 degree of Cancer, and begins againe to diminish and flake when the Sun is past Leo, and newly entred into Virgo : so as in the 29 degree of Virgo he is downe againe, and come to his ordinary course.

CHAP. XXVII.

¶ *Cilicia, and the nations adioyning, to wit, Isaurica, Homonades, Pisidia, Lycaonia, Pamphylia, the mountaine Taurus, and Lycia.*

BVt time it is to returne now to the coasts of Syria, and to Cilicia that confronts it. Where in the first place we meet with the riuer Diaphanes, the mountain Crocodilus, the streights

A and passages of the mount Amanus : more riuers also, to wit, Andricon, Pinarus, and Lycus, as also the gulfes Issicus. The towne Issa standeth vpon it, then come we to Alexandria to the Riuer Chlorus, the free towne Aege, the riuer Pyramus, and the streights in the entrance to Cilicia. Beyond them we encounter the townes Mallos & Magarfos : as for Tarsos it is more within the country. From this towne we enter vpon the plaines of Aleij, and so forward to these townes, Callipolis, and Mopsum, which is free, and standeth vpon the riuer Pyramus ; Thynos, Zephyrium, and Anchiala. On forward you shal haue the riuers Saros and Sydnus, which runs through : Tarsus a free city far from the sea : then are ye in the country Celeuderitis, together with the capitall towne thereof. And anon ye shall set foot in a place called Nymphæum, and Solce Cilicij now Pompeiopolis, Adana, Cibira, Pinara, Pedalie, Halix, Arsinoe, Tabæ, & Doron : and neere the sea side you shall finde a towne, an harbour, and a caue, named all Corycos. Soon after, the riuer Calycadnus. The cape Sarpedon, the townes Olme and Mylae, the Cape and towne both of *Venus*, the very next harbor from whence men passe into the Isle Cypres. But in the maine land you shall finde these townes, Myanda, Anemurium, Coracefium : and the riuer Melas, the antient bound that limiteth Cilicia. Farther within-forth are to be spoken of, the Anazarbenes, at this day Caesar Augustani ; Castabla, Epiphania, before-time Eniandos, Eleusa, and Iconium : Seleucia vpon the riuer Calicadnus, surnamed also Trachiotis, a city remoued backward from the sea, where it was called Hormia. Further more, within the country, the riuers Liparis, Bombos, and Paradisus. Last of all, the mountaine Iubarus. All Cosmographers haue ioyned Pamphylia to Cilicia, and neuer regarded the Nation of Isaurica, being a country by it selfe, hauing within it these towns, Isaura, Clibanus, Lalassis. And it shoots down to the sea side, full vpon the frontiers of the country Anemurium, aboue said. In like sort, as many as haue set forth maps and descriptions of the world, had no knowledge at all of the Nation Homonades confining vpon it, notwithstanding they haue a good towne within it, called Homona. Indeede the other fortresses, *viz.* 44, lie hidden close among the hollow vallies & hills of that country. There inhabit the mountainer ouer their heads, the Pisidians, sometime called Sobyymi, whose chiefe colony is Casaria, the same that Antiochia. Their townes be Oroanda and Sagaleffos. This nation is inclosed as it were within Lycaonia, lying within the iurisdiction of the lesse Asia, and euen so together with it, the Philomelians, Timbrians, Leucolithi, Pelteni, and Hyrienfes resort thither for law and iustice. There is a gouernment, within the country, out of the quarter of Lycaonia, on that side that bordereth vpon Galatia ; vnto which belong 14 States or cities, the chiefe whereof is called Iconium. As for the nations of Lyconia, those of any note be, Tembasa vpon Taurus, Sinda in the confines of Galatia, and Cappadocia. But on the side thereof aboue Pamphilia, ye meet with Mylia, discended in old time from Thrace, who haue for their head city Aricanda. As for Pamphilia, it was in antient time called Mopsopia. The Pamphylian sea ioineeth to the Cilician. The townes scituare vpon that coast, be Side, Aspendus on the hill, Plantanistis, and Perga. Also the cape Leucolla, the mount Sardemifus, the riuer Eurymedon, running hard by Aspendum. Moreouer, Cataraetes the riuer, neere vnto which stand Lyrnessus and Olbia ; and the vtmost towne of all that coast Phaselis. Fast vpon it lieth the Lycian sea, and the nation of the Lycians, where the sea makes a huge great gulfes.

EThe mountaine Taurus likewise, confining vpon the Levant sea, doth limit Lycia and Cilicia, with the promontorie Chelidonium. This Taurus is a mighty mountain, and determineth as a iudge an infinite number of nations. So soone as he is risen from the coast of the East Indian sea hee parteth in twaine, and taking the right hand passeth Northward, and on the left hand Southward, somewhat bending into the West : yea, and diuiding Asia through the middest, and (but that he meeteth with the seas) ready to stop and dam vp the whole earth besides. He retireth backe therefore, as being carbed, toward the North, fetching a great circuit, and so making his way, as if Nature of purpose opposed the seas eftsfoones against him to bar him of his passage, of one side the Phœnician sea, of another the great sea of Poncus ; the Caspian & Hyrcanian seas likewise ; and full against him the lake Mœotis. And notwithstanding all these bars, within which he is pent, twined, and wrestled, yet maketh he means to haue the mastery, and get from them all : and so winding byas he passeth on, vntill he encounter the Riphæan hills, which are of his owne kinde : and euer as he goeth is entituled with a number of new names. For he is called Imaus where he first beginneth : a little forward, Emodus, Paropamisus, Circius, Canibades, Parphariades, Choatras, Oreges, Oroandes, Niphates, and then Taurus. Neuerthelesse

where he is highest, and as it were over-reacheth himselfe, there they name him Caucasus : G where he stretcheth forth his armes like as if he would now and then be doing with the seas, he changeth name to Sarpedon, Coracesius, and Cragus : and then once again he takes his former name Taurus, even where he opens and makes passage as it were to let in the world. And yet for all these waies and ouertures he claimeth his owne stil, and these passages are called by the names of gates, in one place Armenia, in another Caspia, and sometimes Cilicia. Over and besides, when he is broken into parcels, and escaped far from the sea, he taketh many names from diuers and sundry nations on euery side: for on the right hand he is termed Hyrcanus, and Caspius: on the left, Pariedrus, Moschicus, Amazonicus, Coraxicus, and Scythicus: and generally throughout all Greece, Ceraunius.

To returne then to Lycia, being past the foresaid cape there, Chelidonium, ye come to the towne Simena, the hill Chimæra, which casteth flames of fire euery night, the city Hephæstium, where the mountains about it likewise oftentimes are known to burne. Sometimes the city Olympus stood there, but now nothing to be scene but mountaines, and amongst them these townes, Gage, Corydalla, and Rhodiopolis. On the sea coast, the city Lymira vpon a riuer, to which Aricandus runneth: also the mountaine Massyrites, the cities Andriara and Myra. Also these townes, Apyre, and Antiphellos, which sometime was called Habessus; and more within- forth in a corner, Phellus. Then come ye to Pyrrha, and so to Xanthus, 15 miles from the sea, and to a riuer likewise of that name. Soon after ye meet with Patara, before-time named Sataros, and Sydinia seated vpon an hill, and so to the promontorie Ciagus. Beyond which ye shall enter vpon a gulfe as big as the former, vpon which standeth Pinara and Telmessus, the vtmost bound in the marches of Lycia. In ancient time Lycia had in it 60 townes, but now not above 36. Of which the principall and of greatest note, besides the aboue named, be Cana, Candiba, where is the famous wood Oenium, Podalia, Choma, vpon the riuer Adefa, Cyane, Ascandalis, Amelas, Noscopium, Tlos, and Telanorus. As for the midland parts of the maine, you shall finde Chabalia, with three townes thereto belonging, Ocnonda, Balbura, and Bubon.

When you are beyond Telmessus you meet with the Asiaticke sea, otherwise called Carpathium, and this coast is properly called Asia. Agrippa hath diuided it in two parts, whereof the one by his description confronteth vpon Phrygia and Lycaonia Eastward: but on the West side it is limited with the Ægean sea. Southward it bounds vpon Egypt, and in the North vpon Paphlagonia: the length thereof by his computation is 470 miles, the bredth 300. As for the other he saith, That Eastward it confineth vpon Armenia the lesse: Westward vpon Phrygia, Lycaonia, and Pamphylia: on the North it butteth vpon the prouince or realm of Pontus, and on the South side is inclosed with the Pamphylian sea. He addeth moreover, that it containeth 575 miles in length, and 325 in bredth. The next coast bordering thereupon is Caria: and when you are past it, Ionia, and beyond that, Æolis. As for Caria it incloseth Doris in the mids, enuironing it round on euery side, as far as to the sea. In it is the Cape Pedalium, also the riuer Glaucus, charged with the riuer of Telmessus. The townes of any respect be Dardala and Crya, peopled only with banished persons. Therein you finde the riuer Axoum, and the towne Calydua.

CHAP. XXVIII.

¶ The riuer Indus.

THE riuer Indus, arising from the mountaines of the Cybirates, receiueh into it 60 other running riuers, maintained with springs, of other small riuers and brookes fed with land fouds, aboue 100. Vpon it standeth the free towne Camos, and a little off, Pynos. Soon after ye meet with the port Cressa, ouer against which is discovered the Island Rhodus, within the kenning of twenty miles. Being past that haven, you shall enter vpon the plaine Loryma, vpon which are seated the townes Tyfanusa, Tarydion, Larymna. Then meet you with the gulfe Thymnias, and the cape Anghrodias: and on the other side of it the towne Hyda, and another gulf Schoenus. Then followes the country Bubassus, wherein stood in ancient time, the towne Acanthus, otherwise called Dulopolis. Also vpon the cape there, the free city Gnidos, Triopia, then Pegula, called likewise Stadia. Beyond which you enter into the Countrey of Doris,

A Doris. But before we passe farther, meet it were to speake of those cities and States which are in the midland countrie, and which lie behind, and namely of one, named Cibiratica. The towne it selfe is in Phrygia, and to it resort for law and iustice 25 cities:

CHAP. XXIX.

¶ Laodicia, Apamia, Ionia, Ephesus.

THE principall citie in those quarters (of the Cibirites) is Laodicia. Seated it is vpon the riuer Lycus: and yet there run hard to the sides thereof two other riuers, Afopus, and Caper. This citie in times past was called Diospolis, & afterwards Rhoas. The other nations belonging to that iurisdiction of the Cibirates, worth the naming, by the Hydrelites, Themifones, and Hierapolites. Another countie court or towne of resort there is, which taketh the name of Synnada: and to it repaire for iustice, the Licaonians, Appians, Encarpenes, Dorylai, Midai, Iulienfes, and other states of no great reckoning, fifteene. A third Seignorie or Shire there is that goes to Apamia, which in old time was called Celæne, and afterwards Ciboron: scituate it is at the foot of the hill Signia, enuironed with three riuers, Marfias, Obrima, and Orga, falling all into the great riuer Mæander. As for the riuer Marfias (which a little from his spring was hid vnder the ground, whereas Marfias the musitian stroue with Apollo in playing vpon the flute) sheweth himselfe again in Aulocren, for so is the vallie called, ten miles from Apamia, as men trauell the high way to Phrygia. Vnder this iurisdiction, we should doe well to name the Metropolitans, Dionysopolites, Euphorbenes, Acmoneses, Peltenes, and Silbians. There are besides to the number of 60 small towns of no account. But within the gulfe of Doris there stand Leucopolis, Amaxites, Eleus, and Euthenæ. Moreover, other townes of Caria, Pitaium, Eutaniæ, and Halicarnassus. And to this citie were annexed, as subiect and homages by Alexander the great, six other townes, namely, Theangela, Sibde, Medmossa, Euranium, Pedasium, and Telnessum: which townes are inhabited betwene the two gulfes, Ceramicus, and Iasius. From thence yee come to Myndus, and where sometime stood Palæmindus, Neapolis, Nariandus, Carianda, the free citie Termera, Bergyla, and the town Iasus which gaue the name to the gulfe Iasius. But Caria is most renowned & glorious for the places of name within it in the firme land: for therein are these cities, to wit, Mylasa free, and Antiochia, now standing where sometime were the townes, Seminethos, and Cranaos: and enuironed now it is about with the riuers Mæander, and Mossinus. In the same tract stood sometime Mæandropolis also. There is besides, the citie Eumenia, vpon the riuer Cludrus: the riuer Glaucus: the towne Lysias and Orthafia. The tract or marches of Berecinthus, Nyfa, Trallais, which also is named Euanthia, Seleucia, and Antiochia; which is scituate vpon the riuer Eudone that runneth hard by it, and Thebanis which passes quite through it. Some there bewho report, that the dwarfes called Pigmei, sometime there dwelt. In which region besides, were these townes, Thydonos, Pyrrha, Eurome, Heraclea, Amyzon, and the free citie Alabanda, whereof that shierwicke or iurisdiction tooke name. Also the free towne Stratonicea, Hynidos, Ceramus, Trœzene, and Phorontis. Yea there be nations farther remote, that resort thither to pleade and haue iustice in that court: namely, the Othroniens, Halydiens, or Hyppines, Xystianes, Hydissenfes, Apollonians, Trapezopolites, and of free condition the Aphrodisians. Over and besides these, there are Cossinus, & Harpasa, scituate vpon the riuer Harpafus, which also ran vnder Trallicon, when such a towne there was. As for the countrey of Lydia, watered it is in many places with the recourse of Mæanders streame, winding and turning in and out, as his manner is: and it reacheth aboue Ionia: confining vpon Phrygia in the East, vpon Misia in the North, and in the South side enclosing all the countrey of Caria. This Lydia was sometimes named Moenia. The capitall citie of this region, is Sardis, seated vpon the side of the mountaine Tmolus, called before-time Timolus, a hill well planted with vineyards. Moreover, renowned is this countrey for the riuer Pactolus issuing forth of this mountaine, which riuer is called likewise Chrysothoas: as also for the fountain Tarnes. The city abovesaid, was commonly by the Mæonians called Hyde, famous for the meer or lake of Gyges. At that iurisdiction is at this day called Sardinia. Thither resort besides the abouenamed, the Caduenes, descended from the Macedonians; the Lotenes, Philadelphenes, yea and the very Mœnians, such as inhabite vpon the riuer Cogamus at the foot of Tmolus; and the Tripolitans who together with the Antonopolites, dwell vpon the

The fifth Booke of

the riuer Mæander. Furthermore, the Apollonos-Hieritæ, Myfotmolites, and others of small reputation.

Ionias beginneth at the gulfe Iafius, and all the coaft thereof is very full of creekes and reaches. The first gulfe or creeke therein is Bafilicus; and ouer it the cape Pofideum, and the town called fomtime, the Oracle of Branchidæ, but at this day, of Apollo Didymæus, 20 ftadia from the fea fide. Beyond which 180 ftadia, ftandeth Milletus, the head citie of Ionias, named in time paff Lelegeis, Pityufa, and Anaftoria. From which, as from a mother citie, are defcended more than eighty others, all built along the fea coaft by the Millefians. Neither is this city to be defrauded of her due honour, for bringing forth that noble citizen *Cadmus*, who deuifed and taught first to write in Profe. Concerning the riuer Mæander, it iffueh out of a lake at the foot of the mountain Aulocrene; and paffing vnder many townes, and filled ftill with as many riuers running into it, it fetcheth fuch windings to and fro, that oftentimes it is taken for to run back againe from whence it came. The first countrie that it paffeth through, is Apamia; and from thence it proceedeth to Eumenitica, and fo forward through the plaines Bergylletici. Laft of all, hee commeth gently into Caria, and when hee hath watered and ouerflowed all that land with a moft fat and fruitful mud that he leaueth behind him, about ten ftadia from Miletus, he difchargeth himfelfe into the fea. Neer to that riuer, is the hill Latmus: the citie Heraclea, furnamed Caryca, of a hill of that name: alfo Myus, which as the report goeth, was the first citie founded by the Ionians after their arriuall from Athens, Naulochum, and Pyrene. Alfo vpon the fea coaft, the towne called Trogilia, and the riuer Geffus. Moreouer, this quarter all the Ionians refort vnto in their deuotion, and therefore named it Panionia. Neere vnto it was built a priueledged place for all fugitiues, as appeareth by the name Phygela: as alfo the town Marathesium flood there sometime: and aboue it, the renowned citie Magnesia, furnamed, Vpon Mæander, of the foundation of that other Magnesia in Theffalie. From Ephesus it is 15 miles; and from Trallais thither, it is three miles farther. Beforetime, called it was Theffaloe, & Androlitia: and being otherwise fittuate vpon the ftroind, it tooke away with it other Iflands called Derafides, and ioine them to the firme land from out of the fea. More within the maine ftandeth Thyatira (in old time called Pelopia and Euhippa) vpon the riuer Lycus. But vpon the fea coaft, yee haue Manteium, and Ephesus, founded in times paff by the Amazones. But many names it had gone through before, for in time of the Troiane war, Alopes it was called: foone after, Ortygia, and Morges; yea, and it took name Smyrne, with addition of Trachæa, [i. rough] Samornium, and Ptelea. Mounted it is vpon the hill Pione, and hath the riuer Cayftus vnder it, which commeth out of the Cilbian hills, and bringeth downe with it many other riuers, and principally is maintained and enriched with the lake Pegafeum, which difchargeth it felfe by reason of the riuer Phyrtes that runneth into it. With thefe riuers he bringeth downe a good quantitie of mud, whereby he increafeth the land: for now already a good way within the land, is the Ifland Syrie, ioined to the continent. A fountain there is within the citie, called Callipia; and two riuers (height both Selinus) comming from diuers parts, enuiron the temple of *Diana*. After you haue been at Ephesus, you come to another Manteium, inhabited by the Colophonians: and within, the country Colophon it felfe, with the riuer Halefus vnder it. Then meet you with the noble temple of *Apollo Clarius*, and Lebedos. And in this quarter fomtime was to be feen the towne Notium. The promontory alfo Coryceon is in this coaft: and the mountaine Mimas, which reaches out 250 miles, and endeth at length in the plaines within the continent that ioine vnto it. This is the place, wherein *Alexander* the Great commanded a trench feuen miles long and an halfe to be cut through the plain, for to ioine two gulfes in one, and to bring Erythree and Mimas together for to be enuironed round therewith. Neere this city Erythree were fomtimes the townes, Pæleon, Helos, and Dorion: now, there is the riuer Aleon, and the cape Corineum: vpon the mount Mimas, Clazomene, Partheniæ, and Hippi called Chytophonia, hauing benee fomtime Iflands: the fame, *Alexander* caufed to be vnitd to the firme land for the fpace of two ftadia. There haue perished within-forth and benee drowned, Daphnus, Hermefia, and Sipylum, called before-time Tantalus, notwithstanding it had benee the chiefe citie of Mæonia, fittuate in that place, where now is the meere or lake Sale. And for that caufe Archæopolis fucceeded in that preeminence, and after it Colpe, and in ftead thereof Lebade. As you returne from thence toward the fea fide, about twelue miles off, you come vpon the citie Smyrna, built by an Amazonite, but repaired and fortified by *Alexander* the Great. Situate

that it is pleafantly vpon the riuer Melis, which hath his head and fource not far off. The moft renowned hills in Asia for the moft part, fprede themfelues at large in this tract, to wit, Mafusia, on the back fide of Smyrna; and Termetis, that meets clofe to the foot of Olympus. This hill Olympus endeth at the mountain Tmolus; Tmolus at Cadmus; and Cadmus at Taurus. When you are paff Smyrna, you come into certain plains, occafioned by the riuer Hermus, and therefore adopted in his name. This riuer hath his beginning neer to Doryleus a city of Phrygia, and takes into it many other cities, & principally Phryge, which giues name to the whole nation, and diuides Phrygia and Caria afunder. Moreouer Lyllus & Crios, which alfo are big and great by reason of other riuers of Phrygia, Myfia, and Lydia, which enter into them. In the very mouth of this riuer flood fomtime the towne Temnos; but now in the very vtmoft nouke of the gulfe certain ftony rocks called Myrmeces. Alfo the towne Leuce vpon the cape fo called: fomtime an Ifland it was: and laft of all Phocæa, which limiteth and boundeth Ionias. But to returne to Smyrna; the moft part of *Æolia*, whereof we will fpeake anon, repaires commonly thither to their Parliament and Affises. Likewise the Macedonians, fynamed Hircani, as alfo the Magnetes from Sipylum. But vnto Ephesus, which is another principal and famous city of Asia, refort thofe that dwell farther off, to wit, the Cæfarians, Metropolitans, Cylibians, the Myfo-Macedonians, as well the higher as the lower, the Mafaurians, Brullites, Hyppepeonians, and Dios-Hieritæ.

CHAP. XXX.

¶ *Æolis, Troas, and Pergamus.*

Æolis, in old time Myfia, confronts vpon Ionias: fo doth Troas, which bounds on the coaft of Hellespontus. Being then paff Phocæa, you meet with the port Ascanius, & the place where fomtime Lariffa flood: and now Cyme, and Myrina which louch to be called Sebastopolis. Within the firme land, *Ægæ*, Attalia, Pofidea, Neon-tichos, and Temnos. But vpon the coaft, the riuer Titanus, and a city taking name thereof. The time was when a man might haue feen there the city Grynias: but now there is but an hauen and the bare ground, by reason that the Ifland is taken into it, and ioined thereto. The towne Elæa is not farre from thence, and the riuer Caius comming out of Myfia. Moreouer, the towne Pyrane, and the Riuer Canaius. Other townes there were in old time, but they are loft and perished, namely, Canæ, Lyfimachia, Atanæa, Carena, Cithene, Cilla, Cocillum, Thebæ, Aftyre, Chryfa, Paloeftephis, Gergithos, and Neandros. Yet at this day are to be feen the city Perpetene, & beyond it the tract and territory Heracleotes, the towne Coryphas, the riuer Gryliosoliis, the quarter called Aphrodisias, before-time Politice. Orgas the country, and Scepsis the new. The riuer Evenus, vpon the banke whereof flood once Lymeffos, and Mileros, but now they are gon. In this tract is the mountain Ida. Moreouer, in the fea coaft, Adramytteos, fomtime called Pedafus, where the Parliament and Terme is holden, and whereof the gulfe is named Adramytteos. Other riuers be there befides, to wit, Astron, Cornalos, Eryannos, Alabaftros, and Hieros out of Ida. Within-forth be Gargara, a towne and hill both. And then again toward the fea fide, Antandros, before-time called Edonis; then, Cymeris, and Affos, which alfo is Apollonia. Long fince alfo there was a towne called Palamedium. After all thefe, you come vpon the cape Leolon, the middle frontier between *Æolus* and Troas. And there had bin in ancient time the city Polymedia, and Cryffa, with another Laryffa alfo. As for the Temple Smintheum it remaineth ftill. But farther within, the towne Colone that was, is now decayed and gon, and the traffique and negotiation in all affaires turned from thence to Adramytteum. Now as touching the territorie of the Apollonians, after you be paff the riuer Rhyndicus, you finde thefe States; the Erefians, Miletopolites, Pæmanenes, Macedonians, Afchilacæ, Polychnæi, Pionites, Cilices, and Mandagandenes. In Myfia, the Abrettines, and thofe called Hellespontij, befides thofe of bafe account and estimation. The first city you encounter in Troas, is Amaxintus; then Cebrenia and Troas it felfe, named alfo Antigonias, now Alexandria, and is entituled a Roman Colony. Beyond Troas ftandeth the towne Næ: there runneth alfo Scamander, a riuer nauigable; and Sigæum, a Towne fomtime, vpon the cape fo called. At length you come to the hauen of the Greeks, into which Xanthus and Somoeis runne ioynly together, as alfo

also Pala-Scamander, but first it maketh a lake. The rest that *Homer* so much speaks of, namely *Rhæsius*, *Heptaporus*, *Carefus*, and *Rhodus*, there is no mention or token remaining of them: as for the riuer *Granicus*, it runneth from diuers parts into the chanel of *Propontis*. Yet there is at this day a little city called *Scamandria*: and one mile and a halfe from the port or sea, the free city *Ilium*, that enioyeth many immunities and liberties; of which towne goeth all that great name. Without this gulfe lieth the coast *Rhœtea*, inhabited with these townes vpon it, namely, *Rhœteum*, *Dardanium*, and *Arisbe*. There stood sometimes also *Acheleum*, a towne neere vnto the tombe of *Achilles*; founded first by the *Mityleneans*, and afterwards re-edified by the *Athenians*, vpon the Bay *Sigæum*, vnder which his fleet rode at anchor. There also was *Acantium*, built by the *Rhodians*, in another coine or canton of that coast, where *Aiax* was interred, a place thirty stadia distant from *Sigæum*, and the very Bay wherein his fleet also lay at harbour. Aboue *Æolis* and one part of *Troas*, within the Continent and firme land there is the towne called *Teuthrania*, which the *Myfians* in old time held. And there springeth *Caicus* the riuer aboue said. A large countrey this is of it selfe, and especially when it was vnitd to *Myfia*, and all so called: containing in it *Pionia*, *Andera*, *Cale*, *Strabulum*, *Conisium*, *Tegium*, *Balcea*, *Tiare*, *Teuthrane*, *Sarnaca*, *Haliserne*, *Lycide*, *Parthenium*, *Thymbrum*, *Oxiopum*, *Lygdanum*, *Apollonia*, and *Pergamus* the goodliest city of them all by many degrees: through it passeth the riuer *Selinus*, and *Cælius* runneth hard vnder it, issuing out of the mountain *Pindafus*. And not far from thence is *Elea*, which as we said standeth vpon the strand. And verily all that tract and iurisdiction is of that city named *Perganena*. To the Parliament and iudiciall Affises there resort the *Thyatyrenes*, *Mygdones*, *Mossines*, *Bregmenteni*, *Hieracomita*, *Perpereni*, *Tyareni*, *Hierapolenses*, *Harmatapolites*, *Attalenses*, *Pantaenses*, *Apollonidenfes*, and other petty cities of no name and account. As for *Dardanium*, a pretty towne it is, threescore and ten stadia from *Rhœteum*. Eightene miles from thence is the cape *Trapeza*, where the sea beginneth to rush roughly into the streight *Hellespont*. *Eratosthenes* mine Authour saith, That the cities of the *Solymi*, *Leleges*, *Bebrices*, *Colycantij* and *Trepfedores* somtime flourished, but now are vtterly perished. *Isidorus* reporteth as much of the *Arymeos* and *Caprete*, the very place where *Apamia* was built by *Selenus*, betweene *Cilicia*, *Cappadocia*, *Cataonia*, and *Armenia*: and for that he had vanquished most fierce and cruell nations, at the first he named it *Damea*.

CHAP. XXXI.

The Islands lying before little Asia, and in the Pamphylian sea. Also *Rhodus*, *Samus*, and *Chios*.

The first Island of Asia is iust against the mouth or channell of *Nilus*, called *Canopicus* of *Canopus*, (as men say) the Pilot of *K. Menclaus*. The second is *Pharus*, which is ioined to *Alexandria* by a bridge: in old time it was a daies sailing from *Egypt* to it: and now by fires from a watch-tower sailers are directed in the night along the coast of *Egypt*. *Cæsar* Dictator erected therein a colony. And in truth it serueth in right good stead as a *Lanthorne*: for the hauens about *Alexandria* be very dangerous and deceitfull, by reason of the barres and shelues in the sea: and there are but three channels and no more, by which a man may passe safely to *Alexandria*, to wit, *Tegamum*, *Pofideum*, and *Taurus*. Next to that Isle, in the *Phœnician* sea before *Ioppa*, lies *Paria*, an Isle of no great compasse, for it is all one town. This is the place, folke say, where lady *Andromeda* was exposed and cast out to a monster. Moreouer, *Aredos*, the Isle before named, between which and the Continent there is a fountaine, as *Mutianus* writeth, in the sea where it is fifty cubits deep, out of which fresh water is drawne and conueighed from the very bosome of the sea, through pipes made of leather. As for the *Pamphylian* sea, it hath some smal Islands of little or no reckoning. In the *Cicilian* sea there is *Cyprus*, one of the fue greatest in those parts, and it lieth East and West full against *Cilicia* and *Syria*. The Seate it was in times past, whereunto nine Kingdomes did homage, and of which they held. *Timotheus* saith, That it contained in circuit foure hundred and nineteene miles and an halfe: but *Isidorus* is of opinion, that it is but three hundred seventy fue miles about. The full length thereof

A thereof betweene the two capes, *Dinaretas* and *Acamas*, which is Southward, *Artemidorus* reporteth to be a hundred and sixtie miles and a halfe: and *Timotheus* two hundred; who saith besides, that sometime it was called *Acamantis*: according to *Philonides*, *Cerastis*: after *Xenagoras*, *Aspelia*, *Amathusia*, and *Macatia*: *Astynomus* calleth it *Cryptos* and *Colinia*. Townes there be in it fifteene, *Paphos*, and *Palepaphos* (that is, *Paphos* the new, and *Paphos* the old,) *Curias*, *Citium*, *Corineum*, *Salamis*, *Amathus*, *Lepathos*, *Soloe*, *Tamaseus*, *Epidarum*, *Chytri*, *Arsinoe*, *Carpasium*, and *Golgi*. There were in it besides, *Cinirya*, *Marium* and *Idalium*: but now are they come to nothing. And from the cape *Anemurium* in *Cilicia*, it is fifty miles distant. All that sea which lieth betweene it and *Cilicia*, they call *Aulon* *Cilicium*; that is to say, The plaine of *Cilicia*. In this tract is the Island *Elæusa*: and foure others besides, euen before the cape, named *Clides*, ouer-against *Syria*. Likewise one more, named *Stiria*, at the other cape or point of *Cilicia*. Moreouer, against *Ncampaphos*, [i. new *Paphos*] the Isle *Hierocepia*. Against *Salamis*, *Salaminae*. Moreouer in the *Lycian* sea there be Isles, *Illyris*, *Telendos*, *Attelebussa*, and three *Cypria*, all barren and fruitlesse: besides *Dionysia*, before-time called *Caretha*. Moreouer, against the promontory of *Taurus*, and the *Chelidonia*, hurtfull and dangerous to saylers: and besides these as many more, together with the towne *Leucola*, called *Pactia*, namely, *Lafia*, *Nymphous*, *Macris*, *Megista*, in which the citie that stood is gone. Besides these, many others there were, but of no importance. But ouer-against the cape *Chimera*, *Dolichiste*, *Chirogilium*, *Crambussa*, *Rhoge*, *Enagora* of eight miles. Against *Dedalion*, two: against *Cryeon*, three: *Stongyle*, moreouer, against *Sidynia*, which king *Antiochus* founded: and toward the riuer *Glaucus*, *Lagusa*, *Macris*, *Didyma*, *Helbo*, *Scope*, *Aspis*, and *Telandria*: howbeit, the towne in it is sunke and gone: last of all the Isle *Rhodussa*, next to the harborough or haven *Cannus*. But the fairest of all is the Isle *Rhodes*, a free state, and subiect to none: It containeth in compasse an hundred and thirtie miles, or if we rather giue credit to *Isidorus*, an hundred and three. Three great townes there be in it well peopled, *Lindus*, *Camirus*, and *Ialysus*, now called *Rhodes*. By the account of *Isidorus* it is from *Alexandria* in *Egypt*, fue hundred seventy and eight miles: but according to *Eratosthenes* fue hundred sixty and nine: after *Mutianus* fue hundred, and from *Cyprus* foure hundred and sixteene. Many names hath it been knowne by in times past, to wit, *Ophyusa*, *Asteria*, *Æthrea*, *Trinacria*, *Corymbia*, *Pœessa*, *Atabyria* of king *Atabyris*: and finally, *Macaria*, and *Oloessa*. Many other Islands be subiect vnto it, and namely *Carpathus* (which gaue name to the sea *Carpathium*) *Cafos*, *Achme* in times past and *Niseros*, distant from *Gnidus* twelue miles and an halfe, which heretofore had bene called *Porphyrus*. And in the same ranche, *Syme*, betweene *Rhodes* and *Gnidus*, and is in circuit six and thirtie miles and a halfe. Enriched this Island is with eight commodious hauens. Ouer and besides these, there lie about *Rhodes*, *Cyclopis*, *Teganon*, *Cordylusa*, foure vnder the name of *Diabete*: *Hymos*, *Chalcis*, wherein standeth a good towne: *Seutlusa*, *Narthecusa*, *Dimastus*, and *Progne*. Being past *Gnidus*, yee shall discouer *Ciferussa*, *Therionarce*, *Calydne* beautified with three townes, to wit, *Notium*, *Nisyrys*, *Mendeterus*: with *Arconesus* the Isle, wherein standeth the towne *Ceramus*. Vpon the coast of *Caria*, the Islands, twenty in number, called *Argia*: besides, *Hytussa*, *Lepia*, and *Leros*. But the goodliest & most principall of all others in that coast is *Cos*, which lieth from *Halidarnassus* fifteene miles; and in compasse about, it beareth an hundred miles: as men thinke, *Merope* it was called: as *Staphylus* saith, *Cos*: but according to *Dionysius*, *Meropis*: and afterwards *Nymphæa*. This Isle is fortified with the mount *Prion*: and as some thinke, *Nisyris* the Island, named before-time *Porphyrus*, was of old vnitd to this, and afterwards dismembred from it. Beyond this Island yee may discouer *Carianda*, with a towne in it: and not farre from *Halicarnassus*, *Pidosus*. Moreouer, in the gulfe *Ceramicus*, *Priaponesus*, *Hipponesus*, *Psyra*, *Mya*, *Lampsemandus*, *Passala*, *Crusa*, *Pyrre*, *Sepiussa*, *Melano*. And within a little of the maine, another called *Cinedopolis*, by occasion of certain *Catamites* and shamefull baggages that king *Alexander* the Great left there. The coast of *Ionis* hath in the sea the Islands *Ægæ* and *Corseæ*, besides *Icaros*, spoken of before. Also *Lade*, before-time called *Lata*: and among some other little ones of no worth, the two *Camelides* neer to *Milerus*. Moreouer, *Mycalum*, *Trogylia*, *Trepfion*, *Argennon*, *Sardalion*: & the free Island *Samos*, which in circuit hath fourescore and seuen miles, or as *Isidorus* thinkes, a hundred. *Aristotle* writeth, how at the first it was called *Parrhania*, afterwards *Dryusa*, and then *Anthemusa*.

media. The cape Leucatas, which incloseth the gulfe Astareus, is from Nicomedia 42 miles and halfe. Being past this gulfe, the sea begins to streighten again, and the land to meet neer together; and these streights reach as far as Bosphorus in Thracia. Vpon these streights stands the free city Chalcedon, 72 miles and a halfe from Nicomedia. Before-time it was called Procerastis: then Compusa: afterwards, the city of the Blind, for that they who founded it, being in a place but 7 stadia from Bizantium, where was a feat in all respects more commodious and fit for a city, were so blind as not to chuse it for the plot of Chalcedon. But within the firme land of Bithynia is the colony Apamena: and there inhabit also the Agrippenses, Iuliopolites, and they of Bithynium. Moreouer, for riuers ye haue Syrium, Lapias, Pharmicas, Alces, Crynis, Lylæus, Scopius, Hieras, which parteth Bithynia from Galatia. Beyond Chalcedon stood Chrysopolis: then Nicopolis, of which the gulfe still retaines the name, wherein is the haven of Amycus: the cape Naulocum, Estia, wherein is the temple of Neptune: and the Bosphorus, a streight halfe a mile ouer, which now once again parteth Asia and Europe. From Chalcedon it is 12 miles and an halfe. There beginneth the sea to open wider, where it is 8 miles & a quarter ouer, in that place where stood once the towne Philopolis. All the maritime coasts are inhabited by the Thyni, but the inland parts by the Bithynians. Lo here an end of Asia, and of 282 nations, which are reckoned from the limits and gulf of Lycia, vnto the streights of Constantinople. The space of the streights of Hellespont and Propontis together, vntill you come to Bosphorus in Thracia containeth in length 188 miles, as we haue before said. From Chalcedon to Sigeum, by the computation of Isidor, are 372 miles and a halfe. Islands lying in Propontis before Cyzicum, are these, Elaphonnesus, from whence commeth the Cyzicen marble; and the same Isle was called Neuris, and Proconnesus. Then follow Ophyusa, Acanthus, Phœbe, Scopelos, Porphyriane, and Halone with a towne. Moreouer, Delphacia and Polydora, also Artaceon, with the towne. Furthermore, ouer against Nicomedia is Demonnesos: likewise beyond Heraclea, iust against Bithynia, is Thynias, which the Barbarians call Bithynia. Ouer and besides, Antiochia: and against the fosse or riuer Rhyndacus, Besbicos, 18 miles about. Last of all, Elæa, two Rhodusse, Erebinthus, Magale, Chalcitis, and Pityodes.



THE SIXTH BOOKE OF THE HISTORIE OF NATURE, WRITTEN BY C. PLINIUS SECVNDVS.

CHAP. I.

¶ Pontus Euxinus.



He sea called Pontus Euxinus, and named by the Greeks in old time, Axenos, for the hard vfrage that passengers found at the hands of those sauage Nations vpon the coasts thereof, is spred also betwixt Europ and Asia, vpon a very spi re and speciall enuy of Nature, as it seems, to the earth, and a wilfull desire to maintaine the sea still in his greatnesse, and to fulfill his greedy and endlesse appetite. For shee was not contented to haue inuironed the whole earth, with the main Ocean, yea and taken from it a great part thereof, with exceeding rage ouerflowing the same, and laying all empty and naked: it sufficed not, I say, to haue broken through the mountaines, and so to rush in, and after the sea had dismembred * Caspe from Affricke, to haue

A haue swallowed vp much more by far than is left behind to be seen: no nor to haue let Propon- tis gush through Hellespont, and so to encroach again vpon the earth and gaine more ground: vnlesse from the streights of Bosphorus also he enlarge himselfe into another huge and vast sea, and yet is neuer content, vntill the lake Mœotis also with his streight, meet with him as he thus spreadeth abroad and floweth at liberty, and so ioine together and part as it were, their stolne good betweene them. And verily that all this is happened maugre the earth, and that it made all resistance that it could, appeareth evidently by so many streights and narrow passages lying between these two elements of so contrary nature (considering that in Hellespont, the space is not about 875 paces from land to land, and at the two Bosphori the sea is so passeable, that oxen or kine may swim at ease from the one side to the other: and hereupon they both rooke their name:) the which vicinitie serueth very wel to entertaine and nourish amity among nations, separated by nature one from another, and in this disunion as it were, appeareth yet a brotherly fellowship and vnitie. For the cocks may be heard to crow, and the dogs to bark, from the one side to the other, yea and men out of these two worlds may parly one to another with audible voice, and haue commerce of speech together, if the weather be calme, and that the windes doe not carry away the sound thereof.

Well, the measure some haue taken of the sea, from Bosphorus Thracius to the lake of Mœotis, and haue accounted it to be 1438 miles and a halfe. But Eratosthenes reckoneth it lesse by one hundred. Agrippa saith, that from Chalcedon to Phacis, is a thousand miles, and so to Bosphorus Cimmerius 360 miles. As for vs we will set downe summarily and in generall, the distances of places, according to the moderne knowledge of our nation in these daies, soasmuch as our armies haue warred in the very streight and mouth of this Cimmerian streight.

Being passed then from the streight of Bosphorus Thracius, we meet with the riuer Rhebas, which some haue called Rhœsus; and beyond it Pissis another riuer; then come we to the port of Calpas, and Sangarius one of the principall riuers of Asia; it ariseth in Phrygia, it receiueth other huge riuers into it, and among the rest Témbrogius and Gallus. The same Sangarius was called also Coralius. After this riuer, begin the gulfes Mariandini, vpon which is to be seen the towne Heraclea, situate vpon the riuer Lycus. It is from the mouth of Pontus 200 miles. Beyond it is the port Acone, cursed for the venomous herbe and poisonous Aconitum, which taketh name thereof. Also the hole or caue Acherusia. Riuers also there be, Pedopiles, Callichorum and Sonantes. One towne, Tium, eight and thirty miles from Heraclea: and last of all, the riuer Bilis.

CHAP. II.

¶ The nation of the Paphlagonians and Cappadocians.

Beyond this riuer Bilis, is the countrey Paphlagonia, which some haue named Pylemerina, and it is inclosed with Galatia behinde it. The first towne ye meet in it, is Mastya, built by the Milesians: and next to it, is Cromna. In this quarter the Heneti inhabit, as Cornelius Nepos saith. Moreouer, from thence the Venetians in Italy, who beare their name, are descended as he would haue vs beleue. Neere to the said towne Cromna, is another called Sesamum in times past, and now Amastris. Also the mountaine Cytorus, 64 miles from Tium. When you are gone past this mountain, you shall come to Cimolus and Stephane, two townes, and likewise to the riuer Parthenius; and so forward to the cape and promontory Corambis, which reacheth forth a mighty way into the sea: and it is from the mouth of the sea Pontus 315 miles, or as others rather thinke, 350. As far also it is from the streight Cimmerius, or as some would rather haue it, 312 miles and a halfe. A towne there was also in times past of that name; and another likewise beyond it called Arminum: but now, there is to be seen the colony Sinope, 164 miles from Citorum. Being past it, you fall vpon the riuer Varetum, the people of Cappadocia, the townes Gazima and Gazelum, and the riuer Halyto, which issuing out of the foot of the hill Taurus, passeth through Cataonia and Cappadocia. Then meet you with these townes following, Gangre, Carissa, and the free city Amisum, which is from Sinope 130 miles. As you trauell farther, you shall see a gulfe carrying the name of the said towne, where the sea runneth so far within the land, that it seems to make Asia well-neare an Island: for from thence vnto the gulf Issicus in Cilicia is not about 200 miles through the continent. In al which tract, there be no

no more than three nations which iustly and by good right, may be called Greekes, towit, the Dorians, Ionians, and Æolians; for all the rest are reputed barbarous. Vnto Amisum, there ioined the towne Eupatoria, founded by *K. Mithridates*; and after that he was vanquished, both together tooke the name of Pompeiopolis.

CHAP. III.

¶ *Cappadocia.*

IN Cappadocia, there is a city well within the land, called Archelais, scituate vpon the riuer Halys: which *Claudius Caesar* the Emperor erected as a colony, and peopled it with Romane souldiers. There is besides a towne which the riuer Sarus runneth vnder: also Neo caesarea, which Lycus passeth by: and Amasia with the riuer Iris running vnder it, within the countrey Gazacena. Moreouer, in the quarter called Colopena, there stand Sebastia & Sebastopolis, little towns indeed, howbeit comparable with those abovesaid. In the other part of Cappadocia, there is the city Melita, built by queene *Semiramis*, not far from Euphrates: also, Dio-Caesarea, Tyana, Castabala, Magnopolis, Zela, and vnder the mountaine Argæus, Mazaca, which now is named Caesarea. That part of Cappadocia which lieth before Armenia the greater, is called Melitene: that which bordereth vpon Comagene, Cataonia: vpon Phrygia, Garfauritis: vpon Sargaurasana, Cammanum, and finally vpon Galatia, Morimene. And there the riuer Cappadox separateth the one from the other. Of this riuer the Cappadocians took name, whereas beforetime they were called Leucosyrias for the lesse Armenia, the riuer Lycus diuideth it from Neo-Caesarea before said. Within the countrey there runneth also the great riuer Ceraunus. But on the coast side, when you are past the city Amysum, you meet with the town Lycastum; and the riuer Chadisia; and once past them, you enter into the countrey Themiscyra. In this quarter also you may see the riuer Iris, bringing down with it another riuer Lycus that runneth into it. And in the midland parts there is the city Zicla, ennobled for the ouerthrow of *Triarius*, whom *C. Caesar* defeated with his whole army. But in the coast againe you shall encounter the riuer Thermodon, which issueth from before a castle named Phanarœa, and passeth beside the foot of the mountaine Amazonius. In which place there stood sometime a towne of that name, and other fiue, namely, Phamizonium, Themiscyra, Sotira, Amasia, Comana, at this present called Mantium.

CHAP. IV.

¶ *The people of the region Themiscyrene.*

MOREouer, in Pontus ye haue the nations of the Genetæ & the Chalybes, together with a town of Coryi. People besides called Tibareni, and Mossyni, who brand and marke their body with hot searing yrons. Also the nation of the Macrocephali, with the towne Cerasus, and the port Cordula. Beyond which you come to a people named Bechires, and Buzeri, and to the riuer Melas. And so forward to the quarter of the Macrones, Sideni, & so to the riuer Sydenum, vpon which is scituate the town Polemonium, distant from Amisum 220 miles: where ye shall finde the riuers Iafonius and Melanthius; and a towne 80 miles from Amisum, called Pharnacea; the castle and riuer of Tripolis. Item, Philocalia, and Liuiopolis without a riuer: and lastly the imperiall & free city Trapezus, enuironed with a high mountain, 100 miles from Pharnacea. And being past Trapezus, you enter into the countrey of the Armenochalybes, and Armenia the greater, which are 30 miles asunder. But vpon the coast you shall see the riuer Pyxites that runneth euen before Trapezus; and beyond it the countrey of the Sanni Heniochi. Moreouer, the riuer Abarus, in the mouth whereof there is a castle likewise so named, from Trapezus 150 miles. Behind the mountains of that quarter, you meet with the region Iberia; but in the coast thereof the Heniochi, Ampreutæ and Lazi. The riuers Campseonyfis, Nogrus, Bathys. When ye are once past them, you come into the countrey of the Colchians, where stands the town Matium, with the riuer Heracleum passing vnder it, & a Promontorie of that name, & last of all, the most renowned riuer of all Pontus, called Phasis: this riuer riseth from out of the Moschian mountains, & for 38 miles and an halfe, is nauigable, & beareth any great vessels whatsoever. And then for a great way it carrieth smaller bottoms, & hath ouer it

A 120 bridges. Beautified it was sometimes with many faire townes vpon the banks thereof on both sides, and the principall of them all, were Tyritæum, Cygnus, and the city Phasis scituate in the very mouth thereof, as it falleth into the sea. But the goodliest city planted vpon this riuer, and most famous of all the rest was Æa, fiftene miles distant from the sea: where Hippos and Cyanos, two mighty great riuers, comming from diuers parts, enter both into the riuer Phasis. But now there is no count made of any but of Surium onely, which taketh name of the riuer Surium which runneth to it. And thus far we said that Phasis was capable of great ships. Among other riuers which it receiues, for number and greatnesse admirable, is the riuer Glaucus. In the fosse and mouth of this riuer Phasis, where hee is discharged into the sea, there be some little Islands of no reckoning. And there, from Bfarus it is 75 miles. Being past Phasis you meet with another riuer called Charien: vpon which bordereth the nation of the Sala, named in old time Phthiophagi and Suani, where you shall meet with the riuer Cobus, which issueth out of Caucasus, and runneth through the countrey of the Suani aboue-said. Then you come to another riuer Rhœas, and so forward to the region Ecrete: to the riuers Sigania, Tersos, Atelpos, Chrysothons, and the people Abilæ: the castle Sebastopolis, an hundred miles from Phasis, the nation of the Sanigores, the towne Cygnus, the riuer and towne both called Pitius. And last of all ye arriue vpon the countrey of the Heniochia, where be nations entituled with many and sundry names.

CHAP. V.

¶ *The region of Colchis, the Achæi, and other nations in that tract.*

NEXT followeth the region of Colchis, which is likewise in Pontus: wherein the mountaine Caucasus windes and turnes toward the Rhiphean hills, as hath been said before, and that mountaine of the one side bendeth downe toward Euxinus, Pontus, and Meotis; and of the other, enclineth to the Caspian and Hircane seas. When ye are descended to the maritime coasts, ye shall finde many barbarous and sauage nations there inhabiting, to wit, the Melanchleni, and the Choruxi, where sometimes stood Diofcurias a city of the Colchians, neere vnto the riuer Arthemus, which now lieth wast and dispeopled, notwithstanding it was so renowned in times past, that by the report of *Timosthenes*, there repaired thither and inhabited therein 300 nations of diuers languages. And euen afterwards our Romanes were forced to provide themselves of 150 interpreters, when they would negotiate and traffick with the people in and about Diofcurias. Some there be that think how it was first founded by *Amphitrus* and *Telchius*, who had the charge of the chariots of *Castor* and *Pollux*: for certain it is, that the fierce and wild nation of the Heniochi, are from them descended. Being past Diofcurias, you come vnto the towne Heraclium, which from Sebastopolis is 80 miles distant: and so forward to the Achæi; Mardi and Cercetæ: and after them to the Serri, and Cephalotomi. For within that tract stood the most rich and wealthy town Pitius, which by the Heniochians was ransacked and spoiled. On the backe part thereof inhabit the Epagerites [a nation of the Sarmatians] euen vpon the mountaine Caucasus: and on the other side of that hill, the Sauromatæ (the country is at this day called Tartaria the great.) Hither retired and fled king *Mithridates* in the time of *Claudius Caesar* the Emperor: who made report, that the Thali dwell thereby, and confine Eastward vpon the very opening of the Caspian sea: which by his report remaineth dry, whensoever the sea doth ebbe. But now to turne vnto the coast neere vnto the Cercetæ, you meet with the riuer Icarusa, with a towne and riuer called Hierum, 136 miles from Heraclium. Then come yee to the cape Cronca, in the very ridge and high pitch whereof the Toretæ inhabit. But beneath it you may see the citie Sindica, 67 miles scituate from Hierum: and last of all, you arriue vpon the riuer Scæceriges.

CHAP. VI.

¶ *Meotis, and the streights thereof called Bosphorus Cimmerius.*

FROM the said riuer to the very entrance of the Cimmerian Bosphorus are counted 88 miles and a halfe. But the length of the very demy Island, which extendeth and stretcheth out between Pontus and Meotis, is not aboue 87 miles and a halfe, and the breadth in no place lesse

The sixth Booke of

lesse than two acres of land. This the paſſants of that country do call Eione. The very coaſts of this ſtreight Boſphorus, both of Aſia ſide and Europa, boweth and windeth like a curb to Mœotis. As touching the townes here planted, in the very firſt entry thereof ſtandeth Hermonaſſa, and then Cepi, founded by the Mileſians. Being paſt Cepi you come ſoone after to Stratilia, Phanagoria, and Aparuros, in manner vnpeopled and void: and laſt of all, in the very vtmoſt point of the mouth where it falleth into the ſea, you arriue at the towne Cimmerius, named before time Cerberian.

CHAP. VII.

¶ Nations about Mœotis.

Being paſſed Cimmerium, you come to the very broad lake Mœotis, whereof we ſpoke before in the Geography of Europe. Vpon the coaſt whereof, beyond Cimmerium on the ſide of Aſia, inhabit the Mœotici, Vati, Serbi, Archi, Zingi, and Pleſij. After this, you come to the great riuer Tanais, which runneth into Mœotis with two armes or branches: and on the ſides of it dwell the Sarmations, an off-ſpring deſcended in old time (as men ſay) from the Medians: but ſo multiplied now, that they themſelues are diuided and diſperſed into many nations. And firſt of all are the Sauromatæ, ſurnamed Gynæocratumeni; i. (as one would ſay) ſubieſt to women: from whence the Amazones are prouided and furniſhed of men to ſerue their turne in ſtead of husbands. Next to them, are the Euafæ, Cottæ, Cicimeneſi, Meſſeniani, Coſtobocci, Choatræ, Zigæ, Dandari, Thuſſageræ, and Turcæ, euē as far as the wildeſſes, forreſts chafes, and rough vallies. But beyond them are the Arnuphæi, who confine vpon the mountaine Rhiphæi. As for as the riuer Tanais, the Scythians call it Silys: and Mœotis, they name Temerinda, that is to ſay, the mother of the ſea, or rather, the ſea end. In ancient time there ſtood a great towne vpon the very mouth of Tanais, where it falleth into the ſea. As for the neighbour borders of this ſea, inhabited they were ſometime by the Lareæ: afterwards, by the Clazomenij, and Mœones: and in proceſſe of time, by the Panticapenſes. Some Authours write, that about Mœotis toward the higher mountaine Ceraunij, theſe nations following doe inhabit, to wit, firſt vpon the very coaſt and ſea ſide, the Napæ: and about them, the Eſſedones, ioyning vpon the Colchy, and the high mountain [Corax.] After them, the Carmaces, the Oranes, Anticæ, Mazacæ, Aſcantici, Acapeates, Agagammatæ, Phycari, Rhimoſoli, and Aſcomarci. Moreover, vpon the hill Caucasus, the Icauales, Imaduches, Ranes, Anclaks, Tydians, Charaſtaſci, and Afuciandes. Moreover, along the riuer Lagous, iſſuing out of the mountaines Cathei, and into which Opharus runneth, theſe nations enſuing doe dwell, to wit, the Caucadians, and the Opharites: beyond whom runneth the riuer Menotharus, and Imitues, out of the mountaine Ciſſij, which paſſeth through the Agedi, Carnapes, Gardei, Acciſi, Gabri, and Gregari: and about the ſource or ſpring of this riuer Imitues, the people Imitui and Aparrheni. Others ſay, that the Suites, Auchetes, Saternei, and Aſampates, invaded and conquered theſe parts; and that the Tanaites and Nepheonites, were by them put to the edge of the ſword, and not one perſon of them ſpared. Some write, that the riuer Opharus runneth through the Canteci, and the Sapæi: and that the riuer Tanais traueſed ſometime through the Phatareans; Herticei, Spondolici, Synthietæ, Amaſſi, Iſſi, Catareti, Tagori, Catoni, Neripi, Agandei, Mandarei, Saturchei, and Spalei.

CHAP. VIII.

¶ Cappadocia.

Hitherto haue wee treated and gone through the nations and inhabitants of the coaſts vpon the Mediterranean ſea. Now are wee to ſpeake of the people inhabiting the very midland parts of the maine within: wherein I proteſt, and deny not, but that I will deliver many things otherwiſe than the ancient Geographers haue ſet downe: for as much as I haue made diligent ſearch into the ſtate of thoſe regions, as well by enquiry of Domitius Corbulo (who lately went with an army through thoſe quarters (as of diuers kings and princes, who made repaire to Rome with ſutes and ſupplications, but eſpecially of thoſe kings ſons that were left as hoſtages in Rome. And firſt to begin with the nation of the Cappadocians. This is a country that

Plinies Naturall Hiſtory.

A that of all others which bound vpon Pontus, reacheth fartheſt within the firm land; for on the left hand it paſſeth by both Armenias, the greater and the leſſe, & Comagene: and on the right all thoſe nations in Aſia before-named, confining many others; and ſtill preuailing with great might, growing on and climbing Eaſtward vp to the mountain Taurus, it paſſeth beyond Lycaonia, Piſidia, and Cilicia: and with that quarter which is called Cataonia, pierceth about the tract of Antiochia, and reacheth as far as to the region Cyrrheſtica, which lyeth well within that country. And therefore the length of Aſia there, may containe 1250 miles, & the breadth 640.

CHAP. IX.

¶ Armenia the greater and the leſſe.

THE greater Armenia, beginning at the mountains Pariedri, is diuided from Cappadocia by the riuer Euphrates, as hath bin ſaid before: & where the riuer Euphrates beginneth to turne his courſe from Meſopotamia, by the riuer Tigris, as renowned as the other, both theſe riuers it is furniſhed withal, which is the cauſe that it taketh the name of Meſopotamia, as being ſituate between them both. The main land which lyeth between, is poſſeſſed by the mountains of Arabia called Orei: howbeit, it extendeth vntill it confine vpon Adiabene. Being paſt it once, it is hemmed in with mountains that encounter it ouerthwart, which cauſe it to enlarge it ſelfe into a bredth on the left hand, as far as to the riuer Cyrus: and then it turneth euer croſſe, vntill it meet with the riuer Araxes: but it carrieth his length into the leſſe Armenia, confining ſtill vpon the riuer Abſarus, which falleth into the Ponticke ſea: and the mountaines Pariedri (from which the ſaid riuer iſſueth) which diuide it from the leſſe Armenia. As for the riuer Cyrus, it ſpringeth in the mountains Heniochij, which ſome called Coraxici. But Araxes iſſueth out of the ſame mountain from whence Euphrates commeth, and there is not about fix miles ſpace between them both. This riuer Araxes is augmented with the riuer Muſis, and then himſelfe loſeth alſo his name, and as moſt haue thought, is carried by the riuer Cyrus into the Caſpian ſea: as for the townes of name in the leſſe Armenia, they be theſe, Cæſarea, Aſia, and Nicopolis. In the greater yee haue Arſamole, ſit vpon the riuer Euphrates: likewise Carathiocerta, ſituate vpon Tigris. In the higher country, is the city Tigranocerta, built in the plain beneath, neere to Araxes, Artaxata. Auſidius ſaith, that both the Armenia containe in all 500 miles. Claudius Caſar reporteth, that in length from Daſcuſa to the confines of the Caſpian ſea, it taketh 1300 miles, and in bredth halfe ſo much, to wit, from Tigranocerta to Iberia. This is wel knowne, that diuided it is into certain regiments, which they call Strategi-ans; and yet ſome of them in old time, were as large each of them as realmes and kingdomes: and to the number they were of 120, but ſuch barbarous names they had, that they cannot well be ſet downe in writing. Encloſed it is Eaſtward with the mountains, but neither the hills Ceraunij, nor yet the region Adiabene, do preſently and immediatly confine thereupon: for the country of the Sopheni lyeth between: then you come to the mountaines aforeſaid, and being paſt them, you enter into the country of the Adiabenes. But on that coaſt where the plaines lie and the flat vallies, the next neighbors to Armenia, be the Menobardi and Moſcheni. As for Adiabene, enuironed it is partly with the riuer Tigris, and partly compaſſed with an vnacceſſible ſteep mountaine. On the left hand, it confineth vpon the Medians, and hath a proſpect to the Caſpian ſea, the which commeth out of the Ocean (as we ſhall ſhew in meet and conuenient place) and is incloſed wholly within the mountains of Caucasus. As for the nations there inhabiting along the marches and confines of Armenia, now wil we ſpeake of them.

CHAP. X.

¶ Albania, and Iberia.

ALL the plaine country between Armenia and the riuer Cyrus, the Albanois of Aſia do inhabit. Being paſt it, you enter anon into the Iberians region, who are ſeparated from the Albanois aforeſaid by the riuer Alazon, which runneth downe from the Caucaſian hills into Cyrus. The townes of importance, in Albania, is Cabalaca; in Iberia, Harmatiſ, neere to the riuer Neoris: beyond which, is the region Thæſie, and Triare, as farre as vnto the mountaines

gains Partedori. And when you are past them, you enter into the desarts of Chelchis: and on the side of them which lyeth toward the Ceraunij, the Armenochalybes do inhabit: and so forward you come into the tract and marches of the Moschi, which extend to the river Iberus, that runneth into Cyrus. Beneath them, inhabit the Sacassani, and beyond them the Macronians, who reach euen to the river Absarus. Thus you see how the plaines and the hanging of the hills in these parts are inhabited. Againe, from the marches and frontiers of Albania, all the forefront of the hills is taken up and possessed by the sauage people of the Sylui; and beneath them, of the Lubienes, and so forward by the Didurians, and Sodij.

CHAP. XI.

¶ The gates and passages of the mountaine Caucasus.

When ye are beyond the Sodij, you come to the Streights of the hill Caucasus, which many haue erroneously called Caspiæ Portæ. And certes, Nature hath performed a mightie piece of worke; in cleauing asunder at one instant those mountaines, where the gates were barred up as it were with iron portculleises, whiles vnder the mids thereof, the river Dyriodorus runneth: and on this side of it, standeth a strong fort and castle called Cumania, situate vpon a rock, able to impeach an army neuer so puissant & innumerable that would passe thereby; in such sort, as in this place by means of these bar-gates, one part of the world is excluded from the other: and namely most of all they seeme to be set opposite as a rampart against Harmastis a towne of Iberia. But being passed these said gates, you come to the mountaine Gordyci, where the Valli and Suarni, barbarous and sauage nations, are employed onely in the mines of gold. Beyond them as far as to the Ponticke sea, you enter into the countrey of the Heniochi, whereof be many forts, and soon after to the Achci. And thus much as touching this tract of the sea Ponticke, and of the most renowned gulfs of all others. Some haue set downe in writing, that between Pontus and the Caspian sea, it is not about 375 miles. *Cornelius Nepos* saith it is but 150. See into what great streights betwene both seas Asia is driuen againe, and as it were thronged. *Claudius Caesar* hath reported, that from Cimmerius Bosphorus to the Caspian sea, it is 150 miles, and that *Seleucus Nicator* purposed if he had liued, to cut the land through from the one side to the other: but in this purpose of his, himselfe was cut short and slain by *Ptolemaeus Ceraunus*. To conclude, it is in manner held for certain, that from those gates of Caucasus vnto the Pontick sea, it is 200 miles, and no lesse.

CHAP. XII.

¶ The Islands in the Ponticke sea.

In the Pontick sea lye the Islands Planctæ, otherwise Cyaneæ or Symplegades. Then Apollonia, named also Thynnias, for distinction sake from that other so named in Europe: it is from the continent one mile, and is in circuit three. Iust ouer-against Pharnacca, is the Isle Chalceritis, which the Greeks called Aria, consecrated as it were to Mars; wherein they say the fowles that are, vsed to fight and flutter with their wings against all other birds that come thither.

CHAP. XIII.

¶ The Regions and people confining vpon the Scythian Ocean.

Having thus sufficiently discoursed of all the countries within the firme land of Asia, let vs now determine to passe ouer the Rhiphæan hills, and discover the coasts of the Ocean which lie on the right hand of those hills. Wherein we haue to consider, that Asia is dashed and beaten vpon by this maine sea on three parts: to wit, on the North side, and there it is called Scythicus: on the East, where they call it Eous: and last from the South, and there they name it Indicus. And according to the sundry gulfs and creeks that it maketh, and the inhabitants by whom it passeth, many names it taketh. Howbeit, a great part of Asia toward the North, lieth desart, and hath in it much wildernesse vnhabitable, by reason of the extreme cold of that frozen climat, so subiect to the Pole Arctick. But being once past the utmost quarter of

A the North-point, and came to the North-East where the Sun ariseth at midsummer, then you come to the Scythians. Beyond whom, and the very point of the North-pole and the winde from thence, some haue placed the Hyperborei; of whom we haue spoken at large in the treatise of Europe. On this side the Hyperborei, the first cape or promontory that you meet with, all in the countrey Celtica, is named Lytarnis; and then you come vnto the river Caramucis, where by the forcible influence of the starrs, the high mountains Rhiphæa, as being wearied, begin to settle and abase themselves lower. At the fall and descent of which mountains, I haue heard say, that certain people named Arniupheæ inhabited: a nation not much vnlike in their manner of life to the Hyperboreans. They haue their habitations in Forrests; their feeding is vpon berries of trees: shorne they be all and shauen, for both men and women count it a shame to haue haire on their heads: otherwise they are ciuill enough in their conuersation and behavior: and therefore, by report, they are held for a sacred people and inuiolable, in so much as those cruell nations and inhumane that border vpon them, will offer them no abuse; neither do they respect them only, but also in regard and honour of them, they forbear those also that lie vnto them as to a place of franchise and priuiledge. Goe beyond them once, you come among the Scythians indeed, the Cimmerij, Cicianthi, Georgi, and the nation of the Amazons, & these confront the Caspian or Hircan sea: for it breaks forth of the deep Scythian Ocean, toward the back parts of Asia, and takes diuers names of the inhabitants coasting vpon it, but especially about all other of the Caspians & Hircaneans, *Clitarchus* is of this opinion, that this sea is full as great and large as Pontus Euxinus. And *Eratosthenes* sets downe the very measure and purchase thereof: namely, from East to South along the coast of Cadusia and Albania, 5400 stadia: from thence by the Aratiacks, Amarij, and Hircanij, to the mouth of the river Zoum, 4800 stadia: from it to the mouth of Iaxartes where it falleth into the sea, 2400 stadia: which being put together amount in all to 1575 miles. *Artemidorus* counteth lesse by 25 miles. *Agrippa* in bounding out and limiting the circuit of the Caspian sea, & the regions coasting vpon it, together with them Armenia both the greater and the lesse, namely, Eastward with the Ocean of the Seres, Westward with the mountains of Caucasus, on the South side with the hill Taurus, and finally on the North with the Scythian Ocean, hath written, That the whole precinct and compass of these parts may contain in length [so far as is known & discovered of those countries] 590 miles, and 290 in breadth. Yet for all this, there want not others who say, That the whole circuit of that sea, and begin at the very mouth and firth thereof, ariseth to 2500 miles. As for this mouth aforesaid where it breakes into the sea it is very narrow, but exceeding long: howbeit when it begins once to enlarge it selfe and grow wide, it turns and fetcheth a compass with horned points like to a quarter moone, and after the manner of a Scythian bow, as *M. Varro* saith; it windes along from his mouth toward the lake Mœotis. The first gulfe that it makes is called Scythicus; for the Scythians inhabit on both sides, and by meanes of the narrow streight between haue commerce and trafficke one with another: for of the one side are the Nomades and Sauromatæ, comprising vnder them many other nations of diuers names: and on the other, the Abzæ, who haue no fewer states vnder them. At the very entry of this sea on the right hand, the Vdines, a people of the Scythians, dwell vpon the very point of this mouth: and then along the coast, the Albanois, a nation descended (as men say) from *Iafon*, where the sea lying before them is called Albanum. This nation is spread also vpon the mountaines of Caucasus, and so along downe the hills as far as to the river Cyrus, which confines the marches between Armenia and Iberia, as hath bin said. About the Maritime coasts of Albania & the Vdines countrey, the Sarmatians, called Vtidors, and Aroteræ, are planted: and behinde them, the Amazones, whom we haue already shewed; who also are women Sauromatians. The rivers of Albani which fall into the sea, are Cassios and Albanos: and then Cambices, which hath his head in the Caucasian mountains: and soon after Cyrus, which arises out of the hills Corax, as before is said. Moreover *Agrippa* writes, that this whole coast of Albanie (fortified with those high and inaccessible mountains of Caucasus) contains 425 miles. Now when you are past the river Cyrus, the Caspian sea begins to take that name, for that the Caspians doe inhabit the coasts thereof. And here the error of many is to be laid open and corrected, euen of those also who were in the last voyage with *Corbulo* in Armenia with the Romane armie: for they tooke it, that those gates of Caucasus whereof we spake before, were the Caspian gates, and so called them: and the verie mappes and descriptions which are painted and sent from thence, beare that name and title.

* At this day, the Moscho-uites, white & black Russians, Georgians, Amazonians, & the lesse Tartars.

Likewise the menacing commandements, and threatening commissions sent out by *Nero* the Emperour for to gaine and conquer those gates, which through Iberia lead into Sarmatia, made mention of the gates Caspia there, which had in a manner no passage at all to the Caspian sea, by reason that the mountaine Caucasus empeached it. Howbeit in very truth, there be other gates so called, which joine vpon the Caspian nations, which wee had neuer knowne from the other, but by relation of those that accompanied *Alexander* the Great in his voyage and expedition to those parts. For the realme and kingdome of the Persians, which at this day wee take that the Parthians hold, lyeth aloft betwene the Persian and Hircane seas vpon the mountaines of Caucasus, in the very hanging and descent thereof, on both sides confining vpon Armenia the greater: and on that part which lieth to Comagene, confronteth and joineth (as we haue said) vpon Sephenia: and vpon it againe bordereth Adiabene, where the realme of the Assyrians doth begin: whereof Arbelitis, which boundeth next vpon Syria, taketh vp a good part: which is the countrie wherein *Alexander* the Great discomfited and vanquished *Darius*. All this tract, the Macedonians who entered with *Alexander*, surnamed Mygdonia, for the resemblance of that in Greece from which they came. Townes of name there be in it, Alexandria, and Antiochia, which they call Nisibis: and from Artaxata it is 750 miles. There was also another citie called Ninus, or Niniue, seated vpon the riuer Tygris, which regarded the West, which in times past was highly renowned. But on the other side, where it lieth toward the Caspian sea, lieth the region Atropatene, separated by the riuer Araxes, from Otene in Armenia: wherein is the citie Gazæ, 450 miles from Artaxata: and as many from Ecbatana in Media, whereon some part the Atropatenes doe hold.

CHAP. XIII.

¶ Media, and the gates Caspia.

AS for Ecbatana the head citie of Media, *Seleucus* the king founded it: and it is from Seleucia the great 750 miles, and from the Caspian gates 20. The other great towns of importance in Media, be Phausia, Agamzua, and Apamia, named also Rhaphane. And as for the streights there, called the Caspian gates, the same reason is there of that name, as of the other by Caucasus, by reason that the mountaine is clouen and broken through, and hath so narrow a lane, that hardly a waine or cart is able to passe by it, and that for the length of 8 miles: all done by the picket-axe and mans hand. The rocks and cliffes that hang ouer on the one side and the other, be like as if they were scorched and half burnt: so dry and thirsty is all that tract, and without fresh water for 38 miles space: for all the liquor and moisture issuing out of those craggie rockes, runneth through it, which letteth the passage, and causeth folke to auoid that way. Besides, such a number of serpents doe there haunt, that no man dare passe that way but in winter onely.

CHAP. XV.

¶ Nations about the Hircane sea.

VNTO Adiabene, joyneth the countrie of the Carduchy, so called in times past, and now Cordueni, by which the riuer Tigris runneth: and vpon them the Prætitæ do confine, called also Paredoni: who keepe the hold of the Caspian gates aforesaid. On the other side of whom, you shall meet with the deserts of Parthia, and the mountaine Cithenus: but being passed that once, you come streight into the most pleasant and beautiful tract of the same Parthia, called Choara; and there stand two cities of the Parthians, built sometimes as forts opposite against the Medians: namely, Calliope & Issatis, scituate in times past vpon another rocke. As for the capitall citie of al Parthia, Hecatompylos, it is from the Caspian gates aboue said 133 miles. Thus you see how the kingdome of the Parthians also is limited & separat by these mountaines and streights. When a man is once gotten forth of these gates, presently he enters vpon the Caspians countrie, which reacheth as far as to the sea side, and gaue the name as well to it as to the gates afore-named. Howbeit al the region vpon the left hand is full of mountains from whence backward to the riuer Cyrus, are by report 220 miles, but from that riuer if you would go higher vp to those gates, you shall find it 700 miles. And in very truth from this place began *Alexander* to make the account and reckoning of his iournies, in that voyage of his to India,

A India, saying, that from those gates to the entrance of India, it was 15680 stadia: from thence to the city Bacha, which they call Zariaspa 3700, and so to the riuer Iaxartes 5 miles.

CHAP. XVI.

¶ Other Nations also.

FROM the Caspians country Eastward, lieth the region called Zapanortene, & in it the land Daricum, the most fertile tract of all those parts. Then come you to the Tapyrians, Anariaci, Stauri and Hircani, at whose coasts the same sea begins to take the name Hircanum, euen from the riuer Syderis. About it are other riuers, to wit, Mazeras and Stratos, all issuing out of Caucasus. Out of the realme of Hircania, you enter into the country Margiana, so commendable for the warme Sun-shine weather there, and the only place in all that quarter which yeeldeth vines. Enuironed it is on euery side with goodly pleasant hills to the eie, for the compass of 1500 stadia. Fortified it is besides, and affordeth hard access vnto it by reason of the sandy and barren deserts for the space of 120 miles. And scituate it is euen against the tract of Parthia, wherein *Alexander* the Great sometime had built Alexandria, which beeing rased and destroyed by the Barbarians, *Antiochus* the son of *Seleucus* re-edified in the same place vpon the riuer Margus, which runs through it, together with another riuer Zodale, and it was called Syriana [or rather Seleucia.] Howbeit, he desired rather that it should be named Antiochia. This citie containeth in circuit 70 stadia: and into it, *Orodes* after that he had defeated *Crassus* & his host, brought all the Romans whom he had taken prisoners. Being past the high country Margiana, you come to the region of Mardi, a fierce & sauage people, subiect vnto none, they inhabit the mountain Caucasus, and reach as far as to the Baetrians. Beyond that tract are these nations, the Ochanes, Chomares, Berdrigei, Hermatorrophi, Bomarci, Commani, Marucæi, Mandrueni and Iatij. The riuers also Mandrus and Gridinus. Beyond inhabit the Chorasmij, Gandari, Attafini, Paricani, Sarangæ, Parrafini, Maratiani, Nasotiani, Aorfi, Gelæ, whom the Greeks called Cadusij, and the Matiani. Moreover, in it stood the great towne Heraclea, built by *Alexander* the Great, which afterwards was subuerted and ouerthrowne: but when it was repaired again by *Antiochus*, he named it Achais. Beneath in the country, the Derbines do inhabit, thorough whose marches in the very midst runneth the riuer Oxus, which hath his beginning out of a lake called Oxus. Beyond them are the Syrmatae, Oxij, Tagæ, Heniochi, Bateni, Saraparae, and Baetrians, with their towne Zariaspe, called afterwards Baetrum, of the riuer Baetra. This nation inhabiteth the back parts of the hill Paropamisus, ouer against the source & spring of the riuer Indus, & is inuironed with the riuer Ochus. Beyond the Baetrians are the Sogdianes, & Panda the principal city of that country. In the very utmost marches of their territory standeth the town Alexandria built by *Alexander* the Great, wherein are to be seen the altars and columnes, erected by *Hercules*, prince *Bacchus*, *Cyrus*, *Semiramis*, and *Alexander*: supposed and taken to be the very end of all their voiaiges in that part of the world, resting within the riuer Iaxartes, which the Scythians call Silys. For *Alexander* and his soldiers thought it had bin Tanais. Howbeit, captain *Demonax*, who serued vnder the kings *Seleucus* and *Antiochus*, passed ouer that riuer with an army; and at the end of his voiage set vp altars vnto *Apollo Didymus*. And the *Demonax* we follow, especially in this description and Geographic of ours.

CHAP. XVII.

¶ The Scythian Nation.

BEYOND the realm Sogdiana, inhabit the Nations of the Scythians. The Persians were wont to call them in general Sacas, of a people adioyning vnto them, so named. In old time they were known by the name of Arameans. And on the other side, the Scythians for their part vsed to term the Persians, Chorsari: and the hill Caucasus, they called Graucasus, that is to say, white with snow. The principal nations of Scythia, be the Saræ, Massagetae, Dahæ, Efedones, Ariacæ, Rhymnici, Pefici, Amordi, Hifti, Edones, Camæ, Camacæ, Euchatae, Cotieri, Antariani, Pialæ, Arimaspî beforetime called Cacidiri, Afsæ & Oetei. As for the Napæans & Apelæans who sometime dwelt there, they be utterly extinct and gone. The riuers there of name be Mandagraus and Caspafus. And surely there is not a region wherein Geographers doe varie

and disagree more than in this: and as I take it, this commeth of the infinit number of those nations, wandering to & fro, and abiding neuer in one place. *Alexander* the Great and *M. Varro* make report, that the water of the Scythian sea is fresh in taste, & potable. And in truth *Pompey* the great had such water brought vnto him from thence to drink, when he waged war thereby against *Mithridates*: by reason no doubt of the great riuers that fall into it, which ouercome the saltnesse of the water. *Varro* saith moreover, That during this expedition and iourney of *Pompeius*, it was for certain knowne, that it is but seuen daies iourney from out of India to the Bactrians country, euen as far as to the riuier *Icarus* which runneth into *Oxus*: and that the merchandise of India, transported by the Caspian sea, and so to the riuier *Cyrus*, may be brought in fife daies by land as far as to *Phasis* in *Pontus*. Many Islands there lie all ouer that sea: but one aboue the rest, and most renowned, is *Tazata*; for thither all the shipping from out of the Caspian sea and the Scythian Ocean, do bend their course & there arriue; for that all the sea coasts do affront the Leuant, and turn into the East. The frontiers of Scythia from the first cape thereof is vnhabitable by reason of the snow that lies continually: neither are the next regions thereto frequented and tilled, for the barbarous crueltie of those nations that border vpon it: such as the *Anthrophagi*, who liue of mans flesh, and haunt those parts. Hereupon it commeth, that you shall find nothing there but huge desert forrests, with a number of wild beasts, lying in wait for men as sauage as themselves. When you are past this region, you enter againe amongst the Scythians, where you shall find likewise a wildeines full of wild beasts, euen as far as to the promontory & mountain called *Tabis*, which regardeth the sea. In such sort as one moitie in manner of that coast, all along which looketh toward the East, lieth wast, and is not inhabited. The first people of any knowledge and acquaintance be the *Seres*, famous for the fine silk that their woods do yeeld. They kemb from the leaues of their trees the hoary downe thereof, and when it is steeped in water, they card and spin it, yea, and after their manner make thereof a fey or web, whereupon the dames here with vs haue a double labour both of vndoing, and also of weauing again this kind of yeare. See what ado there is about it, what labour and toile it costeth, & how far fet it is; and all for this, that our ladies and wiuens when they go abroad in the street may cast a lustre from them, and shine again in their silks and veluets. As for the *Seres*, a mild and gentle kind of people they are by nature: howbeit, in this one point they resemble the bruit and wild beasts, for that they cannot away in the commerce with other nations, with the fellowship and society of men, but shun and auoid their company, notwithstanding they desire to trafficke with them. The first riuier known among them is *Pistaras*: the next to it *Carabi*: the third *Lanos*; and then you come to a cape of that name. Beyond it is the gulfe *Chryse*, the riuier *Atanos*, and another bay or creeke called *Attanos*. By it lyeth the region of the *Attaci*, a kind of people, secluded from all noisome wind & aire, keeping vpon hills, exposed to the pleasant sunshine, where they inioy the same temperature of aire that the *Hyperboreans* liue in. Of this country and people, *Amonetus* hath written a seuerall booke of purpose: like as *Heratans* hath compiled such another treatise of the *Hyperboreans*. Beyond the *Attaci* or *Attacores*, the *Thyrians* and *Tocharians* do inhabit; yea, and the *Casirians*, who now by this time belong to the *Indians*, & are a part of them. But they within forth that lie toward the *Scythians*, feed of mans flesh. As for the *Nomades* of India, they likewise wander to & fro, and keep no resting place. Some write, that they confine vpon the very *Ciconians* and *Brysanians* on the North side. But there (as all Geographers do agree) the mountains *Emodiarise* and shoot vp: and there entereth the country of the East *Indians*, and extendeth not only to that sea, but also to the Southerne, which we haue named the *Indian* sea. And this part of the Orientall *Indians*, which lieth directly freight forth, as far as to that place where India beginneth to twine and bend toward the *Indian* sea, containeth 1875 miles. And all that tract which windeth and turneth along the South, taketh 2475 miles (as *Erastosthenes* hath collected & set downe) euen vnto the riuier *Indus*, which is the utmost limit of India Westward. But many other writers haue set downe the whole length of India in this maner, namely, that it requireth 40 daies and nights sailing, with a good gale of a forewind: also, that from the North to the South coast thereof, is 2750 miles. Howbeit, *Agrippa* hath put down in writing that it is 3003 miles long, and 2003 broad. *Polidorus* took measure of it from the Northeast to the Southeast: & that by this means it is directly opposit vnto *Gaule*, which he likewise measured along the West coast, euen from the North west point where the Sun goeth down at Mid-summer, to the South-west where it setteth in the

* Euen at this day they set abroad their wares with the prices vpon the shore, and goe their waies: the seuerall merchants come and lay down the money, and haue away the merchandise: and so depart without any communication at all.

A in the midst of Winter. He addeth moreover and saith, That this West wind which from behind *Gaule* bloweth vpon India, is very healthsome & wholesome for that country, and this he proued by very good reason & demonstration: and verily the *Indians* haue a far different aspect of the sky from vs. Other stars rise in their Hemisphere, which we see not. Two Summers they haue in one yere, and as many haruests: and their winter between hath the *Etesian* winds blowing in our dog-daies, in stead of the Northern blasts with vs. The winds are kind and mild with them: the sea alwaies nauigable: the nations there dwelling, & the cities and towns there built, innumerable, if a man would take in hand to reckon them all, for India hath bin discovered, not only by *Alexander* the great his mighty and puissant army, and by other kings his successors (& namely *Selencus* and *Antiochus*, and their Admirall *Patrocles*, who sailed about it euen to the *Hircane* and *Caspian* seas: but also by diuers other Greek Authors, who making abode, & sojourning with the kings of India (like as *Megasthenes* and *Dionysius* sent thither of purpose from *Philadelphus*) haue made relation of the forces which those nations are able to raise and maintain. And yet further diligence is to be imploied still in this behalfe, considering they wrote of things there so diuers one from another, and incredible withall. They that accompanied *Alexander* the great in his Indian voiage, haue testified in their writings, that in one quarter of India which he conquered, there were of towns 500 in number, and not one lesse than the city *Cos*: of seuerall nations nine. Also that India was a third part of the whole earth: & the same so well inhabited, that the people in it were innumerable. And this they said (beleue mee) not without good apparance of reason; for the *Indians* were in manner the onely men of all others that neuer went out of their own country. Moreover, it is said, That from the time of *Bacchus* vnto *Alexander* the Great, there reigned ouer them successiue 154 kings, for the space of 5402 yeres between, and 3 moneths ouer. As for the riuers in that country, they be of a wonderful bignesse. And reported it is, that *Alexander* sailed every day at the least 600 stadia vpon the riuier *Indus*, and yet in lesse than fife moneths and some few daies ouer, he could not come vnto the end of that riuier; and lesse it is than *Ganges* by the confession of all men. Furthermore, *Seneca* a Latine writer, assaied to write certain commentaries of India: wherein he hath made report of 60 Riuers therein, and of nations 120 lacking twaine. As great a labour it were to reckon vp & number the mountains that be in it. As for the hills *Imaus*, *Emodius*, *Paropamisus*, as parts all and members of *Caucasus*, but one vpon another, and conioine together. And being past them yee go downe into a mighty large plain country, like to *Egypt*. It remaineth now to shew the continent and firm land of this great country, and for the more euident demonstration, let vs follow the steps of *Alexander* the great, and his Historiographers, *Dionysius* and *Beton*, who set downe all the gaits and iournies of that prince, haue left in writing, That from the *Caspian* ports vnto the city *Hecatompylos* which is in *Parthia*, there are as many miles as we haue set downe already. From thence to *Alexandria* in the *Ariane* country (which city the same king founded) 562 miles: from whence to *Prophthasia* in the *Dranganes* land, 199 miles: & so forward to the capitoll towne of the *Arachosians*, 515 miles. From thence to *Orthospaunum*, 250 miles: last of all, from it to the city of *Alexandria* in *Opianum*, 50 miles. In some copies these numbers are found to vary and differ. But to return to this foresaid city, scituat it is at the very foot of *Caucasus*. From which to the riuier *Chepta* and *Pencolaitis*, a town of the *Indians*, are counted 227 miles. From thence to the riuier *Indus* & the towne *Tapila*, 60 miles: and so onward to the noble and famous riuier *Hidaspes*, 120 miles: from which to *Hypafis*, a riuier of no lesse account than the other, 4900, or 3900. And there an end of *Alexanders* voiage: howbeit, he passed ouer the riuier, and on the other side of the bank, he erected certaine altars and pillars, and there dedicated them. The letters also of the king himselfe, sent back into *Greece*, do cary the like certificate of his iournies, and agree iust herewith. The other parts of the country were discovered & surueied by *Selencus Nicator*, namely from thence to *Hesudrus* 168 miles: to the riuier *Ioanes* as much: & some copies adde 5 miles more therto: from thence to *Ganges* 122 miles: to *Rhodapha* 119, & some say, that between them two it is no lesse than 325 miles. From it to *Calinipaxa*, a great town, 167 miles & a half: others say, 265. And so the confluent of the riuers *Ioanes* & *Ganges*, where both meet together, 225 miles, & many put therto 12 miles more: from thence to the town *Palibotta* 425 miles: & so to the mouth of *Ganges* where he falleth into the sea, 638 miles. As for the nations, which it pains me not to name, from the mountains *Emodi*, & the principal cape of them, *Imaus*, which signifies in that country, language full of snow, they

be these: the Isari, Cofyri, Izgi, and vpon the very mountains, the Ghisiotofagi: also the Brach. *G* manæ, a name common to many nations, among whom are the Maccocalingæ. Of riuers besides, there are Pinnae & Caines, the later of which twain runneth into Ganges, & both are navigable. The people called Calingæ, coast hard vpon the sea. But the Mandei & Malli, among whom is the mountain Mallus, are about them higher in the country. And to conclude, then you come to Ganges, the farthest bound and point of all that tract, India.

CHAP. XVIII.

¶ *The riuer Ganges.*

*M*any haue bin of opinion, & so haue written, that the spring of Ganges is vncertain, like as that also of Nilus: and that he swelleth, ouerfloweth, and watereth all the countries whereby he passeth, in the same sort that Nilus doth. Others again haue said that it issueth out of the mountains of Scythia: & how into it there run 19 other great riuers: of which ouer and about those before named, certain are nauigable; namely, Canucha, Vama, Erranoboa, Cofaogus, and Sonus. There be also that report, that Ganges presently ariseth to a great bignesse of his owne sources and springs, and so breaketh forth with great noise and violence, as running downe with a fall ouer craggy and stony rocks: and when he is once come into the flat plains and euery country, that he taketh vp his lodging in a certain lake; and then out of it carrieth a mild and gentle stream, 8 miles broad where it is narrowest; and 100 stadia ouer for the most part; but 160 where he is largest: but in no place vnder 20 paces deep, [i.e. 100 foot.]

CHAP. XIX.

¶ *The nation of India, beyond the riuer Nilus.*

*W*hen ye are ouer Ganges, the first region vpon the coast that you set foot into, is that of the Gandaridæ and the Calingæ, called Parthalis. The king of this countrey hath in ordinance for his wars 80000 foot, 1000 horse, and 700 Elephants, ready vpon an houres warning to march. As for the other nations of the Indians that liue in the champion plaine countries, there be diuers states of them, of more ciuility than the mountainer. Some apply themselves to tillage and husbandry: others set their minds vpon martiall feats: one sort of them practise merchants trade, transporting their owne commodities into other countries, and bringing in forrein merchandise into their own. As for the nobility and gentry, those also that are the richest and mightiest among them, they manage the affaires of State and Commonwealth, and sit in place of justice, or els follow the court, and sit in counsell with the king. A fit estate there is besides in great request, & namely of Philosophers & Religions, giuen wholly to the study of wisdom & learning; and these make profession of voluntary death: and verily when they are disposed to die at any time, they make a great funerall fire, cast themselves into it, and so end their daies. Besides all these, one thing there is among them halfe brutish, and of exceeding toile and trauell (and yet it is that which partly maintaineth all the other estates abovesaid) namely, the practise of hunting, chasing and taming Elephants. And in very truth, with them they plow their ground, vpon them they ride vp & down: with these beasts are they best acquainted; they serue in the wars for maintenance of their liberty, and defence of their frontiers against all inuasion of enemies. In the choise of them for war-seruice, they regard and consider their strength, their age, and bignesse of body. But to leaue them. An Island there is within the riuer Ganges, between two arms thereof, of great largenesse and capacity, which receiueth one nation by it selfe, apart from others, & named it is Modogalica. Beyond it are seated the Modubians and Molindians, where standeth the stately city Molinda, situated in a plentiful and rich soile. Moreover, the Galmudroefians, Pretians, Calisse, Safuri, Fassale, Colubar, Orxula, Abali, and Taluctæ. The king of these countries hath in ordinary for his wars 50000 foot, 3000 horse, and 400 Elephants. Then you enter into a country of a more puissant & valiant nation, to wit, the Andarians, planted with many villages well peopled: and moreover with 20 great townes, fortified with strong walls, towers, and bastiles. These find and maintain preft & ready to serue the king in his wars, an Infantry of 100000 foot, a Caualtery of 3000 horse, and 100 Elephants besides, well appointed. Of all the regions of India, the Dardanian country

A is most rich in gold mines, and the Selian in siluer. But about all the nations of India thoroughout, and not of this tract and quarter only, the Prasij far exceed in puissance, wealth, and reputation; where the most famous, rich, and magnificent city Palibotria stands, whereof some haue named the people about it, yea and all the nation generally beyond Ganges, Palibotrians: their king keeps continually in pay 600000 foot men, and 30000 horsemen, and 9000 Elephants euery day in the yere, whereby you may soon guesse the mighty power & wealth of this prince. Beyond Palibotria, more within the firme land, inhabit the Monedes and Suari, where standeth the mountain Maleus: and there for six moneths space the shadowes in winter time fall Northward; and in summer season go into the South. The pole Arcticke starres in all that tract are seen but once in the yere, and that no longer than for 15 daies, as *Beton* reporteth. But *Megasthenes* writeth, that this is vsuall in other parts of India. The Antarctique or South pole the Indians call Dromosa. As for the riuer Iomanes, which runs into Ganges, it traueseth through the Palibotrians country, and passeth between the townes Methora and Cyrisoborca. Beyond the riuer Ganges, in that quarter and clymate which lieth Southward, the people are caught with the Sun, and begin to be blackish, but yet not all out so sun-burnt and blacke indeed as the Æthiopians and Moores. And it seemeth, that the neerer they approach to the riuer Indus, the deeper coloured they are and tanned with the Sun: for you are not so soone past the Prasians country, but presently you are vpon Indus: and among the mountaines of this tract, the Pygmans, by report, do keepe. *Artemidorus* writeth, that betwene these two riuers there is a distance of 21 miles.

CHAP. XX.

¶ *The riuer Indus.*

*T*he great riuer Indus, which the native people call Sandus, issueth out of a part or dependence of the hill Caucasus, which is called Paropamisus: hee takes his course and runs full against the Sun rising, and makes 19 riuers more to lose their names, which he takes in vnto him: among which the principall are these, Hydaspis one, bringing with him 4 more: and Cantabra another, accompanied with 3 besides. Moreover, of such as are of themselves nauigable, without the help of others, Aceines, and Hypafis. And yet for all their additions, the riuer of Indus (such a sober and modest course as it were his waters keepe) is in no place either about 50 stadia ouer, or 15 paces, i. 75 foot, or 12 fathom and halfe deep. This riuer incloseth within two branches of it, a right great Island named Prasiane, and another that is lesse, called Patale. As for himselfe, they that haue written the least of him say he beareth vessels for 1240 miles: and turning with the course of the Sun, keepeth him company Westward vntill hee is discharged into the Ocean. The measure of the sea coast from Ganges vnto him I wil expresse generally and in grosse, as I find it written, albeit there is no agreement at all of Authors touching this point. From the mouth of Ganges where he entrencheth into the sea, vnto the cape Calingon and the towne Dandagula, are counted 725 miles: from thence to Tropina 1225 miles. Then to the promontorie Perimula, where stands the chiefe mart or towne of merchandise in all India, they reckon 750 miles: from which to the towne abovesaid Patale within the Isle, 620 miles. The mountainer inhabiting betwixt it and Iomanes, are the Cesti and Celiboni, wilde and sauage people: next to them the Megallæ, whose king hath in ordinary preft for seruice 500 Elephants, of foot and horse a great number, but vncertaine it is how many, sometime more, sometime fewer. As for the Chryseans, Parafangians, and Afangians, they are full of the wilde and cruell Tygers: they are able to arme 30000 foot and 800 horse, and to set out with furniture 300 Elephants. This country is on three sides enuironed and inclosed with a range of high mountaines, all desert and full of wildernes for 625 miles, and of one side confined with the riuer Indus. Beneath those wilde hills you enter among the Dari & Saræ: then you come againe to waste deserts for 188 miles, compassed about for the most part with great bars and banks of sand, like as the Islands with the sea. Vnder these desert Forrests you shall meet with the Maltecores, Cingians, Marobians, Rarungians, Morantes, Masuræ, and Pangungæ. Now for those who inhabit the mountains, which in a continuall range without interruption stand vpon the coasts of the Ocean, they are free States and subiect to no Prince, and many fair townes and cities they hold among these cliffes and craggy hills. Then come you to the Narreans,

mans, inclosed within the highest mountaine of all the Indian hills, Capitalia. On the other side of this mountaine great store there is all ouer it, of gold and siluer mines, wherein the Inhabitants do dig. Then you enter vpon the kingdom of Oratura, whose king indeed hath but ten Elephants in all, howbeit a great power of footmen. And so forward to the Varetates, who vnder their King keepe no Elephants at all for his seruice, trusting vpon their Caualtery and Fanterie, wherein they are strong. Next to them the Odomboerians & Salabastres, where standeth a goodly faire city called Horata, enuironed and fortified with deepe fosses and ditches full of standing water: wherein there keepe a great number of Crocodiles, which for the greedy appetite to deuoure mens bodies, wil suffer none to passe into the town but ouer the bridge. Another towne there is besides among them, of great name and importance, to wit, Automela, standing vpon the sea side: and otherwise much resort there is vnto it of merchants from all parts, by reason of 5 great riuers which meet all there in one confluence. Their king maintains in ordinary 1600 Elephants, 150000 footmen, and 5000 horse. The king of the Charmians is but poore to speake of: his strength lieth in 60 Elephants, for his power otherwise is but smal. Being past that realme, you come into the country of the Padians, the only nation of all the Indians, which is gouerned by women. One of this sex, they say, was begotten sometime by *Hercules*, in which regard she was the better accepted, and had the prerogative of the regencie ouer the greatest kingdome. From her the other Queens fetch their pedegree, and haue the dominion and rule ouer 30 great townes, and the command of 150000 foot, and 500 Elephants. Beyond this realme you come to the nation of the Syrieni, containing 300 Cities: and from them to the Derangæ, Posunge, Bugæ, Gogyarci, Vmbræ, Nereæ, Brancosi, Nobundæ, Cocondæ, Nefei, Pedatritæ, Solobriacæ, and Olostræ, who confine vpon the Island * Patale: from the vtmost point of which Iland vnto the gates Caspiæ, are reckoned 18035 miles. Now on this side the riuer Indus, iust against them, as appeareth by euident demonstration, there dwell the Amariæ, Bolingæ, Gallitalutæ, Dimuri, Megari, Ordabæ, and Mefæ. Beyond them the Vri and Sileni, and then you come to the desarts for 250 miles: which hauing passed ouer, you shall meet with the Organages, the Abaorts, Cibaræ, and the Suertæ: and beyond these, a wilderness againe as great as the former. Passe on farther, you come among the Sarophages, Sorgæ, Baromatæ, and the Gunbretes, of whom there be 13 feuerall nations, and each one hath two great cities apiece. As for the Aseni, they people three cities: their capitall city is Bucephala, built in the very place where king *Alexanders* horse called *Bucephalus* was interred. Aboue them are the mountainers on the rising of the hill Caucasus, named Soleadæ, and Sondæ: and when you are on the other side of the riuer Indus, as you go along the coast and banks thereof, you shall see the Samarabrians, the Sambrucenes, the Brisabrites, Osij, Autixeni, and Taxillæ, with a famous city called Amandra, of which all that traist now lying more flat and plaine within the countrey is named Amandria. Foure other nations there be besides of Indians, the Peucolaitæ, Arsagalites, Geretes, and Asei: for many of the Geographers set not down Indus the riuer, for to determine the marches of the Indians Westward; but lay thereto foure other prouinces and feuerall seigniories, to wit, of the Gedrosians, Arachotes, Arii, and Paropamisades.

CHAP. XXI.

¶ The Arii, and other nations depending vnto them.

Other writers are of opinion, that the vtmost frontier and limit of India is the riuer Cochetes, and both it and all those quarters are included within the territorie of the Arii; yea and most of them affirme, that the city Nyfa, as also the mountaine Merus consecrated to god *Bacchus*, belong vnto India as parcels thereof. This is that mountaine whereof arose the poeticall fable, That *Bacchus* therein was borne, and issued out of *Iupiters* thigh. Likewise they assigne and lay to India the country of the Aspagores, so full of vines, laurel, and box, and generally of all sorts of apple trees and other fruitfull trees that grow within Greece. Many strange, wonderful, and in manner fabulous things they report of the fertilitye of that land, of the diuers sorts of corne, of trees bearing cotton, of wilde beasts, of birds, and other creatures there breeding and liuing: which because they are not properly belonging to this Treatise now in hand, I will referre them for another part of this Worke, and write more particularly

Early of them in their due and feuerall places. And as for those 4 prouinces which I touched before, I will speake of them anon: for now I hasten and thinke it long vntill I haue said somewhat of the Island Taprobane. And yet before I come to it there be other Isles which I cannot passe by, and namely that of Patala, which I noted to ly in the very mouth of the riuer Indus, and it carrieth the forme and shape of a triangle figure, and is 220 miles long. Without the mouth of the riuer Indus two other Isles there be, Chryse and Agyræ, so named (as I thinke) of the gold and siluer mines which they do yeeld: for I cannot easily beleue, that the very earth and soile there is all gold and siluer entire, as some haue made report. Twenty miles from them lieth the Isle Crocala: and 12 miles farther into the sea, Bibaga, where of oysters and other shell fishes called Purples are found good store. And last of all, 9 miles beyond it, Toralliba shewes it selfe, and many other petty Islands of no regard.

CHAP. XXII.

¶ The Island Taprobane.

It hath bene of long time thought by men in antient daies, That Taprobane was a second world, in such sort as many haue taken it to be the place of the Antipodes, calling it the Antichthonos world. But after the time of *Alexander* the Great, and the voiage of his army into those parts, it was discovered and knowne for a truth, both that it was an Island, and what compass it bare. *Onesicritus* the Admiral of his fleet hath written, that the Elephants bred in this Island be bigger, more fierce and furious for war seruice than those of India. *Megasthenes* saith there is a great riuer which parteth it in twaine, and that the people thereof dwelling along the riuer be called Palæogoni: adding moreouer, that it affordeth more gold and bigger pearles by farre than India doth. *Eratosthenes* also tooke the measure thereof, and saith, that in length it beareth 7000 stadia, and in bredth 5000: that in it there be no cities or great townes, but villages to the number of 700. It begins at the Levant sea of Oriental Indians, from which it stretcheth and extendeth between the East and West of India; and was taken in times past to ly out into the sea from the Prasians countrey 20 daies sailing. But afterwards, for that the boats and vessels vsed vpon this sea in the passage thither, were made & wound of paper reeds like those of the riuer Nilus, and furnished with the same kinde of tackling, the voiage thither from the foresaid country was gaged within a lesse time: and well knowne it was, that according to the faile of our ships and gallies, a man might arriue there in 7 daies. All the sea lying between is very ebbe, full of shallowes and shelues, no more than 5 fathom deepe: howbeit in certain chanelles that it hath, it is so deep that it cannot be founded, neither wil any anchors reach the bottom, and there rest; and withall, so streight & narrow these chanelles are, that a ship cannot turne within them: and therefore to auoid the necessitie of turning about in these seas, the ships haue prows at both ends, and are pointed each way: in sailing they obserue no star at all. As for the North pole, they neuer see it: but they carry euer with them certaine birds in their ships, which they send out oft times when they seeke for land, euer obseruing their flight: for knowing well that they wil fly to land, they accompany them, bending their course accordingly: neither vse they to faile more than one quarter of a yeare: and for 100 daies after the Sun is entred into Cancer, they take most heed, and neuer make faile: for during that time it is winter with them. And thus much we come to knowledge of, by relation of antient Writers. But we came to far better intelligence, and more notable information, by certain Embassadors that came out of that Island, in the time of *Claudius Cæsar* the Emperor: which happened vpon this occasion, and after this manner; It fortuned that a free slaue of *Annius Placamus*, (who had farmed of the Exchequer the customs for impost of the red sea) as he made saile about the coasts of Arabia, was in such wise driuen by the North windes besides the realme of Carmania, and that for the space of 15 daies, that in the end he fell with an harbour thereof called Hippuros, and there arriued. When he was set on land, he found the King of that Countrey so courteous that hee gaue him entertainment for six moneths, and entreated him with all kindenesse that could be deuised. And as he vsed to discourse and question with him about the Romanes and their Emperour, he recounted vnto him at large of all things. But amongst many other reports that he heard he wondred most of all at their iustice in all their dealings, & was much in loue therewith, and namely, that their Deniers of the money which was taken, were alwaies of like

like weight, notwithstanding that the sundry stamps and images vpon the pieces shewed plainly that they were made by diuers persons. And hereupon especially was he moued & sollicitous to seeke for the alliance and amitie of the people of Rome: and so dispatched 4 Embassadors of purpose, of whom one *Rachias* was the chiefe and principall personage. By these Embassadors we are informed of the state of that Island, namely, that it contained fise hundred great townes in it: & that there was a hauen therein regarding the South coast, lying hard vnder *Palefimumdum* the principall citie of all that realme, and the kings seat and pallace: that there were by iust account 200000 of commoners & citizens: moreouer, that within this island there was a lake 270 miles in circuit, containing in it certain Islands good for nothing else but pasture, wherein they were fruitfull; out of which lake there issued 2 riuers, the one, *Palefimumdas*, passing neere to the citie abovesaid of that name, and running into the hauen with three fireames, whereof the narrowest is fise stadia broad, and the largest 15; the other Northward on India side, named *Cydara*: also that the next cape of this country to India is called *Colaicum*, from which to the neere port of India is counted foure daies sailing: in the midst of which passage, there lieth in the way, the Island of the Sunne. They said moreouer, that the water of this sea was all of a deepe greene colour, and more than that, full of trees growing within it: inasomuch as the pilots with their helmes many times brake off the heads and tops of those trees. The stars about the North-pole, called *Septentriones*, the *Waines* or *Beares*, they wondred to see here among vs in our Hemisphere: as also the Brood-hen, called *Vergilia* in Latine, as if it had been another heauen. They confessed also they neuer saw with them, the Moone about the ground before it was 8 daies old, nor after the 16 day. That the *Canopus*, a goodly great and bright star about the pole *Antarctike*, vsed to shine all night with them. But the thing that they marvelled and were most astonied at was this, that they obserued the shadow of their own bodies fell to our Hemisphere, and not to theirs; and that the Sun arose on their left hand, and set on their right, rather than contrariwise. Furthermore they related, that the front of that Island of theirs which looked toward India, contained 10000 stadia, & reached from the South-East beyond the mountains *Enodi*. Also, that the *Seres* were within their kenning, whom they might easily discouer from out of this their Island: with whom they had acquaintance by the meanes of trafficke and merchandise: and that *Rachias* his father vsed many times to trauell thither. Affirming moreouer, that if any strangers came thither, they were encountred and assailed by wild & sauage beasts: and that the inhabitants themselves were gyants of stature, exceeding the ordinary stature of men, hauing red haire, eyes of colour blewish, their voice for sound horrible, for speech not distinct nor intelligible for any vse of traffick and commerce. In all things else their practise is the same that our merchants and occupiers do vse: for on the farther side of the riuer, when wares and commodities are laid downe, if they list to make exchange they haue them away, and leaue other merchandise in lieu thereof to content the forrein merchant. And verily no greater cause haue we otherwise to hate & abhor this excessiue superfluitie, than to cast our eie so far and consider with our selues, what it is that we seeke for, from what remote parts we fetch it, and to what end we so much desire al this vanitie. But euen this Island *Taprobane*, as farre off as it is, seeming as it were cast out of the way by Nature, and diuided from all this world wherein we liue, is not without those vices and imperfections wherewith we are tainted and infected. For euen gold & siluer also is there in great request and highly esteemed: and marble, especially if it be fashioned like a tortois shell. Iemmes and pretious stones; pearles also, such as be orient and of the better sort, are highly prized with them: and herein consisteth the very height of our superfluous delights. Moreouer, these Embassadors would say, that they had more riches in their Island, than we at Rome, but we more vse thereof than they. They affirmed also, that no man with them had any slaues to command: neither slept they in the morning after day-light, ne yet at all in the day time. That the maner of building their houses was low, somewhat raised about the ground, and no more adoe: that their markets were neuer deare, nor price of victuals raised. As for courts, pleading of causes, and going to law, they knew not what it meant. *Hercules* was the onely god whom they worshipped. Their king was alwaies chosen by the voices of the people: wherein they had these regards; that hee were aged, milde, and childlesse: but in case he should beget children afterward, then hee was deposed from his regall dignitie, to the end that the kingdome should not in proceffe of time bee hereditary and held by succession, but by election onely. This king being thus chosen and inuested,

A inuested, bath thirtie other gouernours assigned vnto him by the people: neither can any person be condemned to death, vnlesse he be cast by the more part of them, and pluralitie of voices: and thus condemned as he is, yet may he appeale vnto the people. Then are there 70 judges deputed to sit vpon his cause: and if it happen that they assaile and quit this party condemned: then those 30 who condemned him, are displaced from their state and dignity, with a most bitter and sharpe rebuke, and for euer after, as disgraced persons liue in shame and infamie. As for the king, arraied he is in apparel as prince *Bacchus* went in old time: but the subiects and common people are clad in the habit of Arabians. If it fortune that the king offend, death is his punishment: howbeit, no man taketh in hand to doe execution. All men turne away their faces from him, and deigne him not a looke nor a word. But to do him to death in the end, they appoint a solemne day of hunting, right pleasant and agreeable vnto Tygres and Elephants, before which beasts they expose their king, and so he is presently by them deuoured. Moreouer, in that Island good husbands they are for their ground, and till the same most diligently. Vines haue they no vse of at all: for all sorts of fruits otherwise they haue abundance. They take also a great pleasure and delight in fishing, and especially in taking of tortoises: and so great they are found there, that one of their shels will serue to couer an house: and so the inhabitants doe employ them in stead of rouses. They count an hundred yeeres no long life there: that is the ordinary time of their age. Thus much we haue learned and knowne as touching *Taprobane*. It remaineth now to say somewhat of those foure Satrapies or prouinces, which we did put off vnto this place. Of them therefore as followeth.

CHAP. XXIII.

¶ *Capissene, Carmania.*

Beyond those nations that confine hard vpon the riuer *Indus*, as yee turn toward the mountaines, yee enter vpon the realme of *Capissene*, wherein sometime stood the citie *Capissa*, which *Cyrus* the king caused to be rased. At this day there standeth the citie *Arachosia*, with a riuer also of that name in the country *Arachosia*: which citie some haue called *Cophe*; founded by queene *Semiramis*. There likewise is to be seen the riuer *Hermendus*, which runneth by *Abeste*, a city of the *Aracofians*. The next that confront *Aracofia* Southward, toward part of the *Arachotes*, are the *Gedrosians* and on the Northside, the *Paropamisades*. As for the towne *Cartana*, named afterwards *Tetragonius*, scituate it is at the foot of the mountaine *Caucasus*. This country lies ouer-against the *Bactrians*: then you come to the principall towne therof *Alexandria*, named so of king *Alexander* the founder thereof: vpon the marches whereof are the *Syndrari*, *Dangula*, *Porapiani*, *Cantaces*, and *Maci*. Moreouer, vpon the hill *Caucasus* standeth the towne *Cadusi*, built likewise by the said *Alexander*. On this side all these regions lieth the coast of the riuer *Indus*. Then followes the region of the *Arianes*, all scorched and fenged with the parching heate of the Sunne, and inuironed about with deserts: howbeit, many shadowie vallies lie between to allay the exceeding heat. Well peopled it is about the two riuers especially, *Tonderos* and *Arosapes*. Therein stands the citie *Artaccana*. Being past it, the riuer *Arius* runneth vnder the city *Alexandria*, built by *Alexander* the Great. The towne contains in compass 30 stadia. Then come you to *Artacabane*, a citie as it is much more ancient, so it is also fairer by far, which by *Antiochus* the king was walled the second time, and enlarged to 50 stadia. The next in order is the nation of the *Dorisci*. The riuers *Pharnacotis* and *Ophradus*. *Prophtasia*, a towne in *Zaraspasia*. The *Drangæ*, *Argetæ*, *Zarangæ*, and *Gedrusij*. Townes moreouer, *Peucolais* and *Lymphorta*. After you are past their territory, you enter into the deserts of the *Mithoricanes*, and so to the riuer *Maui*, and the nation of the *Augutturi*. The riuer *Borru*, the people called *Urbi*, the nauigable riuer *Ponamus*, which passeth through the marches of the *Pandanes*. Ouer and besides, the riuer *Ceberon* within the country of the *Sorates*, which in the mouth thereof where it falleth into the sea, makes many baies and harbours. As you go farther, you come vpon the towne *Candigramma*, with the riuer *Cophes*: into which there runne other riuers that carry vessels, to wit, *Sadurus*, *Paraspus*, and *Sodinus*. As for the country *Daritus*, some would haue it to be a part of *Ariana*, and they set down the measure of them both together to be in length 1950 miles, & in breadth lesse by half than *India*. Others haue set down that the country of the *Gedrusians* and *Scyrians* may contain 183 miles. Being passed which quarters,

quarters, you enter into the region of the Ichthyophagi, surnamed Oritæ or mountainers (who haue a proper language by themselves, and speake not in the Indian tongue) which reaches on full for 200 miles. And beyond it you meet with the people of the Arrians, who likewise continue for other 200 miles. As for those Ichthyophagi before-named, *Alexander* by an expresse edict forbade them all to feed on fish. Being past them, you are in the deserts: and beyond them you come into Carmania, Persis, and Arabia. But before that we treat distinctly of these countries, I thinke it meet to set downe what *Onesicritus* (who hauing the conduct of a fleet vnder *Alexander* the great, sailed from off India, about the Southerly coasts of Persis) reports according to those intelligences which came lately from king *Iuba*. In like maner those voiaiges of ours for these yeeres past, performed, by which euen at this day we are guided. Howbeit, in the reports made by *Onesicritus* and *Nearchus*, of their nauigations, we finde neither the distance, ne yet the names of the seueral resting places, after euery daies iournie. And to begin with the citie Xyleneopolis built by *Alexander*, from which they entred first into their voiage, it is not put down by them, either in what place it is situate, nor vpon what riuer. Yet these particulars following are by them reported worth remembrance: to wit, that in this voiage *Nearchus* founded a towne in those parts: that the riuer Nabrus runs thereby, and is able to beare great vessels: ouer-against which there is an Island 70 stadia within the sea. Moreouer, that *Leonatus* caused Alexandria to be built in the frontiers of that region, by direction and commandement from king *Alexander*, where the riuer Argenus enters into the sea, and yeelds a safe & commodious hauen. Also that the riuer Tiberum is nauigable, along the banks whereof the Parites inhabit. And after them the Ichthyophagi, who tooke vp so long a tract, that they were 20 daies sailing by their coasts. They make relation likewise of the Isle of the Sun, named also the couch or bed of the nimphs: This Island is red all ouer, and no liuing creature will liue therein, but is consumed, & perishes no man knoweth how, or vpon what cause. They speake besides of the nation of the Orians: as also of Hytanis a riuer in Carmania, which affordeth many baies and harbours, yea, and plentie of gold in the grauell and sand therof. And her was the first place wherin they obserued, that they had a sight of the North-pole star. As for the starre *Arcturus*, they affirmed, that they saw it not euery night, nor at any time all night long. Furthermore, that the country of the Achæmenides in Persea, reached thus farre. Ouer and besides, that as they trauelled, ordinarily they found good store of mines, wherein was digged for brasse, yron, Arsenicke or Sardaracha and Vermilion. And then they came to the cape of Carmania: from which to the coast ouer-against them of the Mara, a people in Arabia, the cut ouer sea is 50 miles. Vpon these coasts they discovered 3 Islands, whereof Organa onely is inhabited, by reason of fresh water within it, and from the continent it lieth about 25 miles. And foure Islands more they fell vpon, euen in the Persian gulf ouer-against Persia. And about these Islands they might see sea-adders & Serpents so monstrous great that as they came swimming toward them, they put the very fleet in great fright, for there were among them some, 20 cubits long. Beyond it they met with the Island Acrotadus: likewise the Gaurates Isles, wherein the nation the Chiani doe inhabit. About the middle of this gulf or arme of the sea, the riuer Hiperus hath his course, able to beare great hulkes and ships of burden. Also the riuer Sitiogagus, vpon which a man may passe in 7 daies to Pafargadia. Also a riuer that is nauigable called Phirsimus, and an Island within it, but it is namelesse. As for the riuer Granus which runs through Susiane, it carries but small vessels. Along the coast on the right hand of this riuer dwell the Deximontanes, who dresse and prepare Bitumen. Then they come to the riuer Oroatus, with a dangerous hauen or mouth where it falls into the sea, vnlesse a man be guided by skilfull pilots: & full against this riuer there are discovered 2 little Islands. Past which, the sea is very low and shallow, full of shelues and sands, more like a meete and marish water, than a sea. Howbeit there be certaine trenches or channels in it that draw deepe water, wherein they may without danger saile. Then met they with the mouth of the riuer Euphrates. Also the lake which the two riuers Eulæus and Tigris doe make, neere vnto Characum. And so from thence they arriued vpon the riuer Tigris, at Sufa. And there an end of the nauigation performed by *Onesicritus* and *Nearchus*. For after they had bene three months embarked and in their voiage vpon the sea, they found *Alexander* at Sufa (where he feasted and made solemne bankets) and that was 7 monthes after he parted from them at Patalæ. And thus much concerning the voiage of *Alexander* his fleet. Now afterwards from Syagrus, a Promontory in Arabia, it was counted vnto Patalæ 1332 miles, & held it was for certain then that,

A that the West wind with the people of that country call Hypalus, was thought most proper for to make saile to the same place. Howbeit the age ensuing discovered a shorter and safer cut; namely, if from the said promontorie or cape Syagrus, they set their course directly to the mouth of the riuer Zigerus, which maketh an harborough in India. And in truth this passage held a long time, vntill such time that in the end the merchants found out a more compendious and shorter course, and gained by their voiage to India: for euery yeere now they saile thither, and for feare of pirats and rousers that were wont very much to infect and annoy them, they vsed to imbarke in their ships certaine companies of Archers. And seeing that all these seas are now discovered, and neuer before so certainly, I will not thinke much of my pains, to declare and shew, the whole course of our Indian voiaiges from out of Ægypt. And first and formost this is a thing worthy to be noted and obserued of euery man, that there is not a yeere goeth ouer our heads, but it costs our State to furnish a voiage into India, 500 hundred thousand Sesterces, i. fifty millions of Sesterces. For which the Indians fendeth backe againe commodities and merchandise of their owne, which being at Rome, are sold for an hundred times as much as they cost, or yeeld in the price an hundred fold gain. But to returne againe to our voiage, from Alexandria in Ægypt, it is two miles to Iulio polis: from whence vpon the riuer of Nilus, they saile 303 miles to Coptus, which may be done in 12 daies space, hauing the Etesian winds at the poupe. From Coptus they trauell forwards vpon Cammels backs: and for great default of water in those parts, there be certain set places for bait, lodging, and watering. The first is called Hydreuma 32 miles from Coptus. The second one days journey from thence in a certaine mountaine. The third watering place at another Hydreuma, 95 miles from Coptus. The fourth againe in a second mountaine. The fifth is at a third Hydreuma of *Apollo*, from Coptus 184 miles. Beyond which, the resting place is vpon another hill. And then to Hydreuma the new, from Coptus 234 miles. Another water towne there is, called Hydreuma the old, named also Trogloditicum, where two miles out of the port way lieth a garrison, keeping watch and ward both day & night: and foure miles distant it is from new Hydreuma. From whence they trauell to the towne Berenice, an hauen towne standing vpon the red sea, 258 miles from Coptus. But for as much as the journey all this way is for the most part performed in the night season, by reason of the excessiue heat, & the traellers are forced to rest all the day long, therefore twelue daies are set down for the whole voiage between Coptus and Berenice. The time then that they vsually begin to set saile, is about Midsummer before the dog daies, or presently vpon the rising of the dog starre. And about the 30 daies end they arriue to Ocelis in Arabia, or els at Cama, within Saba, the countrey of incense. A third port there is besides called Muzæ, vnto which there is no resort of merchants out of India: neither is it in request but with merchants that aduenture only for incense, drugs, & spices of Arabia. Howbeit peopled this country is within-forth, and hath diuers great townes. Of which, Saphar is the principall, and the kings seat: & another besides of good importance called Sabe. But for them that would make a voiage to the Indians, the most commodious place to set forward is Ocelis: for from thence, and with the West wind called Hypalus, they haue a passage of forty daies sailing to the first towne of merchandise in India, called Muziris. Howbeit a port this is, not greatly in request, for the daunger of pirats and rousers, which keep ordinarily about a place called Hydræ: and besides that, it is not richly stored and furnished with merchandise. And more than so, the harborough is farre from the town, so as they must charge and discharge their wares to and fro in little boats. At the time when I wrot this story, the king that reigned there, was named *Celebra-thras*. But another hauen there is more commodious, belonging to the Necanidians, which they call Becare: the kings name at this present is *Pandion*: not far off is another town of merchandise within the firme land, called Madufa. As for that region, from whence they transport pepper in small punts or trouges made of one peece of wood, it is named Corona. And yet of all these nations, hauens, and towns, there is not a name found in any of the former writers. By which it appeareth, that there hath been great change and alteration in these places. But to come againe to India, our merchants returne from thence back in the beginning of our month December, which the Ægyptians call Tybis, or at farthest before the sixt day of the Ægyptians month Machiris, and that is before the Ides of Ianuary: and by this reckoning they may passe to and fro, and make return within the compasse of one yeere. Now when they saile from India, they haue the Northeast wind Vulturnus with them: and when they be entered once into the red sea, the

So as it appeareth that euery daies journey was about 32 miles.

South or Southwest. Now wil we return to our purposed discourse as touching Carmania. The coast wherof after the reckoning of *Nicarchus* may take in circuit 12050 miles. From the first marches thereof to the riuer Sabis is counted 100 miles. From whence all the way as far as to the riuer Andaius, the country is rich and plenteous, for in it are vineyards and corne fields wel husbanded. This whole tract is called Amuzia. The chiefe townes of Carmania be Zetis and Alexandria. Vpon the marches of this realme the sea breaks into the land in two armes, which our countrymen call the red sea, and the Greekes Erythraum, of a king named *Erythras*: or as some thinke, because the sea by reason of the reflection and beating of the Sun beams, seemes of a reddish colour. There be that suppose this rednesse is occasioned of the sand and ground which is red: and others againe, that the very water is of the own nature so coloured.

CHAP. XXIV.

¶ The Persian and Arabian gulfs.

THIS red sea is diuided into two armes: that from the East is named the Persian gulf, being in compasse 2500 miles, by the computation of *Eratosthenes*.ouer against this gulf, in Arabia (which lieth in length 1200 miles) on the other side another arme there is of it called the Arabian gulf, which runs into the Ocean Azanius. The mouth of the Persian gulf where it maketh entrance is 5 miles ouer, and some haue made it but 4: from which to the farthest point thereof, take a direct and straight measure by a line, and for certaine it is, that it containeth 1225 miles: and is fashioned directly like a mans head. *Oncschritus* and *Nearchus* write, That from the riuer Indus to the Persian gulf, and so from thence to Babylon by the meeres and fens of the riuer Euphrates, it is 2500 miles. In an angle of Carmania inhabit the Chelonophagi, i. such as feed vpon the flesh of Tortoises, and the shells of them serue for roofes to couer their cottages. They inhabit all that coast along the riuer Arbis, euen to the very cape: rough they are, hairy all their body ouer but their heads, and weare no garment but fish skins.

CHAP. XXV.

¶ The Island Cassandrus: and the kingdome vnder the Parthians.

WHEN you are past this tract of the Chelonophagi, directly toward India, there lieth fifty miles within the sea the Island Cassandrus, by report all desert and not inhabited: and neere to it, with a little arme of the sea between, another Island called Stoils, wherein pearles are good chaffer, and yeeld gainfull traffike. But to returne againe to Carmania, when you are beyond the vtmost cape thereof, you enter presently vpon the Armozei, who ioyn vpon the Carmanians. But some say that the Arbij are between both: and that their coast may containe in the whole 402 miles. There are to be seen the port or hauen of the Macedonians, and the altars or columnes which *Alexander* erected vpon the very promontorie and vtmost cape. Where also be the riuers Saganos, Daras, and Salsos. Beyond which is the cape Themiscas, and the Isle Aphrodisias well peopled. Then beginneth the realme of Persis, which extendeth to the riuer Oroatus, that diuides it from Elymais. ouer against the coasts of Persis, these Islands be discovered, Philos, Cassandra, and Aratia, with an exceeding high mountaine in it: and this Isle is held consecrated to *Neptune*. The very kingdome of Persis Westward hath the coasts lying out in length 450 miles. The people are rich, and giuen to royall and superfluous expence in all things: and long since are become subiect to the Parthians, carying their name. And seeing we are come to speake of them, we will briefly now mention their dominion and empire: the Parthians haue in all 18 realmes vnder them: for so they termed all their prouinces as they lie diuided about the two seas, as wee haue before said: namely the red sea Southward, and the Hircane sea, toward the North. Of which, eleuen that lie aboue in the country, and are called the higher Prouinces, they take their beginning at the confines and marches of Armenia, and the coasts of the Caspians on the one side: and reach to the Scythians, whom they confront of the other side, with whom they conuerse and keepe company together as Equals. The other seuen are called the base or lower Realmes. As for the Parthians, their land was alwaies counted to ly at the foot and descent of those mountains wherof we haue so often

spoken,

A spoken, which do enuiron and enclose all those nations. It confineth Eastward vpon the Arbij, and Southward, vpon Carmania and the Arians: on the West side it butteth vpon the Parthians and Modes: and on the North, boundeth vpon the realm of Hircania: compassed round about with deserts and mountaines. The vtmost nations of the Parthians before wee come to those deserts be called Nomades: and their chiefe townes seated toward the West, are *Isaris* and *Calliope*, wherof we haue written before: but toward the Northeast, *Europum*, and *Southeast* Mania. In the heart and midland standeth the citie Hecatompylos, as also *Arfacia*. And there likewise the noble region of *Nysa* in Parthyerum: together with the famous city *Alexandropolis*, bearing the name of *Alexander* the first founder.

CHAP. XXVI.

Media, Mesopotamia, Babylon, and Seleucia.

REQUIT now it is and needfull in this place to describe the posture and situation of the Medians kingdom, and to discover all those countries round about, as farre as to the Persian sea, to the end that the description of other regions hereafter to be mentioned, may the better be vnderstood. Wherein this first and formost is to be obserued, that the kingdome of Media on the one side or other confronteth both Persis and Parthia, and casting forth a crooked and winding borne as it were toward the West, seemeth to enclose within that compasse both the said realmes. Neuerthelesse, on the East side it confineth vpon the Parthians and Caspians: on the South, Sittacene, Susiane, and Persis: Westward, Adiabene: and Northward, Armenia: as for the Persians, they alwaies confronted the red sea, whereupon it was called the Persian gulf. Howbeit, the maritime coast thereof is called Cyropolis, and that part which confineth vpon Media, Elymais. In this realme there is a strong fort called Megala, in the ascent of a steep high hill, so direct vpright, that a man must mount vp to it by steps and degrees, and otherwise the passage is very streight and narrow. And this way leadeth to Persepolis, the head city of the whole kingdome, which *Alexander* the great caused to be raised. Moreouer in the frontiers of this Realme, standeth the city Laodicea, built by king *Antiochus*. From whence as you turn into the East, the strong fort or castle Passagarda is seated, which the sages or wise men of Persia called Magi, do hold, and therein is the tomb of *Cyrus*. Also the citie Ecbarana belonging to these sages, which *Darius* the king caused to be translated to the mountaines. Between the Parthians and the Arians lie out in length the Parotacenes. These nations and the riuer Euphrates serue to limit and bound the seuen lower realmes abouenamed. Now are we to discourse of the parts remaining behind of Mesopotamia; setting aside one point and corner thereof, as also the nations of Arabia, wherof we spake in the former booke. This Mesopotamia was in times past, belonging wholly to the Assyrians, dispersed into pettie villages and burghades, all saue Babylon & Ninus. The Macedonians were the first, that after it came vnder their hands reduced it into great cities, for the goodnesse and plenty of their soile and territorie. For now besides the abouenamed townes, it hath in it, Seleucia, Laodicea, and Artemita: likewise within the quarters of the Arabians named Aroci & Mardani, Antiochea: and that which being founded by *Nicanor*, gouernor of Mesopotamia, is called Arabis. Vpon these ioine the Arabians, but well within the country are the Eldamarij. And about them is the citie Bura, situated vpon the riuer Pellocontas: beyond which are the Salmanes and Maseans Arabians. Then there ioine to the Gordians those who are called Aloni, by whom the riuer Zerbis passeth, and so discharged into Tigris. Neere vnto them are the Azones and Silices mountaineers, together with the Orentians: vpon whom confronteth the city Gaugamela on the West side. Moreouer, there is Sue among the rocks: aboue which are the Sylici and Clastira, through whom Lycus the riuer runneth out of Armenia. Also, toward the Southeast, Absitris, and the town Azochis. Anon you come down into the plains & champion country, where you meet with these towns, Diospage, Positelia, Stratonicea, & Anthemus. As for the city Nicephorium, as we haue already said, it is seated neere to the riuer Euphrates, where *Alexander* the great caused it to be founded, for the pleasant seat of the place, and the commodity of the country there adioining. Of the city Apamia we haue before spoken in the description of Zeugma: from which they that goe Eastward meet with a strong fortified town, in old time carrying a pourprise & compasse of 65 stadia, called the royall pallace of their great dukes & potentates, named *Satrapæ*,

N 2

vnto

* Or rather
Nahal Nales,
i. the kings ri-
uer.

vnto which from all quarters men resorted to pay their imposts, customs, and tributes; but now it is come to be but a fort and castle of defence. But there continue still in their entire and as flourishing state as ever, the city Hebatu and Oruros, to which by the fortunat conduct of Pompey the Great, the limits and bounds of the Roman empire were extended; and is from Zeugma 250 miles. Some writers report, that the river Euphrates was diuided by a gouernor of Mesopotamia, and one arme thereof brought to Gobaris, euen in that place where we said it parted in twain: which was done for feare lest one day or other the river with his violent streame should indanger the city of Babylon. They affirme also, that the Assyrians generally called it * Armalchar, which signifieth a royall river. Vpon this new arme of the river afore said, stood sometime Agrani, one of the greatest towns of that region, which the Persians caused to be vterly rased and destroyed.

As for the city of Babylon, the chiefe city of all the Chaldean nations, for a long time carried a great name ouer all the world: in regard whereof all the other parts of Mesopotamia and Assyria was named Babylonia: it contained within the walls 60 miles: the walls were 200 foot high, and 50 thick, reckoning to euery foot 3 fingers bredth more than our ordinary measure. Through the midst of this goodly great city passeth the river Euphrates: a wonderfull piece of worke, if a man consider both the one and the other. As yet to this day the temple of Jupiter Belus there stands entire. This prince was the first inuenter of Astronomie. It is now decayed, and lieth waste and vnpeopled, for that the city Seleucia stands so neere it, which hath drawne from it all resort and traffique; and was to that end built by Nicator within 40 miles of it, in the very confluent where the new arm of Euphrates is brought by a ditch to meet with Tigris: notwithstanding it is named Babylonia, a free state at this day, and subiect to no man; howbeit they liue after the lawes and manners of the Macedonians. And by report, in this city there are 600000 citizens. As for the walls thereof, it is said they resemble an Eagle spreading her wings: and for the soile, there is not a territorie in all the East parts comparable to it in fertilitye. The Parthians in despight again of this city, and to do the like by it, as sometime was done to old Babylon, built the city Ctesiphon within three miles of it, in the tract called Chalontis, euen to dispeople and impouerish it; which is now the head city of that kingdom. But when they could do little or no good thereby to discredit the said new Babylon, of late dayes Volagesus their king founded another city hard by called Vologeso Certa. Moreover, other cities there are besides in Mesopotamia, namely Hipparenum, a city likewise of the Chaldeans, and innobled for their learning as well as Babylon; situate vpon the river Narragon, which gaue the name vnto that city. Howbeit the Persians caused this Hipparenum to be dismantled, and the walls thereof to be demolished. There be also in this tract the Orchenes towards the South, from whence is come a third sort of the Chaldeans, called Orcheni. Being past this region, you meet with the Nottites, Orthophants, and Græciophants. *Nearchus* and *Onesicritus*, who registred the voiage of *Alexander* the Great into India, report, That from the Persian sea to the city Babylon by the river Euphrates, is 412 miles. But the later and moderne Writers do count from Seleucia to the Persian gulf 490 miles. *K. Inbaw* writeth, That from Babylon to Charax is 175 miles. Some affirme moreover, That beyond Babylon the river Euphrates doth maintaine one entire course, and keepeth one channel 87 miles, before he is diuided into seuerall branches here and there, for to water the country: and that he holdeth on his course from his head to the sea for the space of 1200 miles. This varietie of Authors as touching the measure is the cause why a man may not so wel resolute and conclude thereof, considering that euen the very Persians agree not about the dimensions of their Scènes and Parasanges, but haue diuers measures of them. Whereas the river Euphrates giueth ouer his owne channel, (which for the bredth thereof is a sufficient munition to it selfe) and beginneth to part into diuers branches, which it doth about the marches & confines of Charax, in all the tract neere adioyning, great danger there is of the Attalæ, a thecuiish nation amongst the Arabians, who presently set vpon all passengers comming and going to and fro. When you are past this infamous and suspected Region, you shall enter into the Countrey of the Schenites. As for the Arabians which are called Nomades, they occupie all the coasts of the river Euphrates, as farre as to the Desarts of Syria. From the which place we haue said that hee turned, and tooke his way into the South, abandoning the desarts of Palmyrene. To conclude, from the beginning and head of Mesopotamia, it is counted to Seleucia, if you passe vpon the river Euphrates, 1125 miles:

miles: and from the red sea, if you go by the river Tigris, 320 miles: from Zeugma 527 miles: and to Zeugma from Seleucia in Syria vpon the coast of our sea, is reckoned 175 miles. This is the very true and iust latitude there, of the firm land between the two seas, to wit, the Persian gulf and the Syrian sea. As for the kingdom of Parthia, it may containe 944 miles. Finally, there is yet another towne of Mesopotamia vpon the banke of Tigris, neere the place where the rivers meet in one, called Digba.

CHAP. XXVII.

¶ The river Tigris.

MEET also and conuenient it is to say somewhat of the river Tigris. It begins in the land of Armenia the greater, issuing out of a great source; and euident to be seen in the very plaine. The place beareth the name of Elongosine. The river it selfe so long as it runs slow and softly is named Diglito; but when it begins once to carry a more forcible streame it is called Tigris, for the swiftnesse thereof; which in the Medians language betokens a shaft. It runs vp into the lake Arethusa, which beareth vp afloat all that is cast into it, suffering nothing to sinke; and the vapors that arise out of it carry the sent of Nitre. In this lake there is but one kind of fish, and that entrencheth not into the chanell of Tigris as it passeth through, nor more than any fishes swim out of Tigris into the water of the lake. In his course and colour both he is vnlike, and as he goes may be discerned from the other: and being once past the lake, and encountereth the great mountain Taurus, he loseth himself in a certain caue or hole in the ground, and so runs vnder the hill, vntill on the other side thereof he breaketh forth again, and appears in his likeness, in a place called Zoroanda. That it is the same river it is euident by this, that he carrieth through with him, and sheweth in Zoroanda, whatsoever was cast into him before he hid himselfe in the caue afore said. After this second spring and rising of his he enters into another lake, and runneth through it likewise, named Thospites; and once again takes his way vnder the earth through certain blinde gutters, and 25 miles beyond he putteth forth his head about Nymphæum. *Claudius Cesar* reporteth, that in the countrey Arrhene, the river Tigris runs so neere the river Arsanian, that when they both swell, and their waters are out, they ioine both their streams together, yet so, as the water is not mingled: for Arsanias being the lighter of the twain, swimmeth and floteth ouer the other for the space wel-neere of 4 miles: but soon after they part asunder, and Arsanian turneth his course toward the river Euphrates, into which he entrencheth. But Tigris receiuing into him certain goodly great rivers out of Armenia, to wit, Parthenis, Agnice, and Pharion, & so diuiding the Arabians & Trocenes from the Adiabenes, and by this means making as it were an Island of Mesopotamia afore said, after he hath passed by and viewed the mountaines of the Gordians, neere vnto Apamia a town of Mesene on this side Seleucia syrnamed Babylonia, 125 miles: diuiding himselfe into two armes or channels, with the one he runneth Southward to Seleucia, watering as he goeth the countrey of Messene; and with the other windeth Northward: he goeth on the backside of the said Mesene, and cutteth through the plains of the Cauchians. Now when these two branches are re-vnited again, the whole is called Pasitigris. After this, he taketh into him out of Media, the great river Coaspes: and so passing between Seleucia and Ctesiphon, as we haue said, he falls into the meeres and lakes of Chaldæa, which he furnisheth and replenisheth with water for the compasse of seuentie miles: which done, he issueth forth againe, gushing out with a mighty great and large streame, and running along the towne Charax, on the right hand thereof, he dischargeth himselfe into the Persian sea, carrying there a mouth ten miles ouer. Between the mouthes of these two rivers, Tigris & Euphrates, where they fall into the sea, were counted in old time 25 miles, or as some would haue it but seuen: and yet both of them were nauigable, and bare right great ships. But the Orcheniens and other neighbor inhabitants, long since turned the course of Euphrates aside to serue their owne turnes in watering their fields, and stopped the ordinarie passages thereof, insomuch as they forced him to run into Tigris, & not otherwise than in his chanell to fall into the sea. The next countrey bordering vpon Tigris is called Parapotamia, in the marches whereof is the city Melene, whereof we haue spoken. The chiefe towne thereof is Dibitach: from thence you enter presently into the region Chalontis, ioyning hard vpon Ctesiphon, a rich countrey, beautified not only with rowes of date trees, but also with Oliue, Apple,

and peare trees, and generally with all sorts of fruit. Vnto this country extends the mountaine Zagrus, comming along from out of Armenia, between the Medes and Adiabenes, aboue Parataccene and the realme of Persis. Chalontis is from Persis 480 miles distant: & some write, that going the freight, direct, and neere way, it is so much and no more from the Caspian sea to Assyria. Between these countries and Mesene lieth Sittacene, the same that Arbelitis and Palestine. The townes of importance therein are Sittace, held by the Grecians, scituate toward the East, and Sabata: but on the West side Antiochia, seated between the two riuers Tigris and Tornadotus. In like manner Apamia, which *Antiochus* the king so called after his mothers name. This City is inuironed as it were with the riuers Tigris, and diuided with the riuers Archous which passeth through it. Somewhat lower than these countries lieth the region Susian, wherein stood the ancient royall pallace and seat towne of the Persian kings, Susa, founded by *Darius* son of *Hystaspes*; and from Seleucia Babylonia it is 450 miles distant: & as much from Ecbatana in Media, taking the way along the mountaine Charbanus. Vpon that branch of the riuers Tigris that taketh his course Northward, stands the towne Babytace; and from Susa it is 135 miles. The people of this country are the only men in the world that hate gold: and in very truth get it they do, and when they haue it, they bury it sure enough within the ground, that it may serue for no vse. Vpon the Susianes Eastward ioyn the Cossians, Brigands, and the eues generally all. Likewise the Mizians, a free state, and subiect to no government, hauing vnder them 40 nations, all wilde, and liuing as they list. Aboue these quarters you enter into the countries of the Parthians, Mardians, Saites, and Hyans, who confine vpon high Persia called Elemais, which ioyneth to the maritime coasts of Persis, as is aboue said. The city of Susa is from the Persian sea 250 miles. On that side whereas the Armada of *Alexander* the Great came vp the great riuers Palitigris to Susa, there stands a Village on the lake Chaldais, name Aphle, from which to Susa is 65 miles and an halfe by water. The next that border vpon the Susianes Eastward are the Cossians: and aboue the Cossians Northward lieth Mesobatenes vnder the hill Cambalidus, which is a branch and dependant of the mountain Caucasus; and from thence is the most easie and ready passage into the country Bactriana. The riuers Eulæus makes a partition betwixt the high country of Persis called Elimais, and Susiane. This riuers issueth out of the Medians country, & in the midst of his course loseth himself vnder the ground: but being once vp againe he runneth through Mesobatenes, and inuironeth the fort & castle of Susa, with the Temple of *Diana*, which is had in great reuerence and honour aboue all other Temples in those parts: yea, and the very riuers it selfe is in much request, and the water thereof ceremoniously regarded; in such wise, as the kings drinke of no other, and therefore they fetch it a great way into the country. And it receiueth into it the riuers Hedypnus, which commeth along the Priuiledged place whereinto the Persians vse to retire for sanctuarie, and one more out of the Susianes country. A towne there is planted neere vnto it, called Magoa, 15 miles from Charax: yet some there be that would haue this towne to stand in the vtmost marches of Susiana, euen close to the mountaines and deserts. Beneath the riuers Eulæus lieth Elimais, ioyning to Persis in the very maritime coast; 240 miles it is from the riuers Oroates to Charax: the towns in it be Seleucia and Sofirate, both scituate vpon the hanging of the hill Casyrus. The flat coast and leuell thereof, which lieth before it, is, as we haue said before, no lesse dangerous and vnaccessible than the Syrts, for quauemires, by reason of the great store of mud and sand together, which the riuers Brixia and Ortacea bring downe with them.ouer and besides, the country Elemais is so fenny, and standeth with water so wet, that there is no way through it to Persis, but a man must fetch a great circuit and compasse about it to come thereto. Moreover, it is much haunted and annoied with serpents, which breed and come downe in those riuers: And as troublesome as the passage is all the country ouer, yet that part yeeldeth the worst aduenues, and is least frequented, which is called Characene, of the towne Charax, which limits the kingdomes of Arabia, whereof we will speake anon more at large, after wee haue set downe the opinion of *Strabo*, which he hath deliuered as touching these quarters: for he hath written, that Media, Parthia, and Persis are bounded on the East side with the riuers Indus; on the West with Tigris; on the North part with the two mountaines, Taurus and Caucasus; and on the South coast with the red sea: also that they extend in length 1320 miles, and in bredth eight hundred forty. Moreover, that Mesopotamia by it selfe alone is inclosed Eastward with the Riuers Tigris, and Westward with Euphrates; hauing on the North side the mountaine

Taurus,

- A Taurus, and on the South the Persian sea: lying out in length 800 miles, and in bredth 360: now to returne vnto Charax, the inmost towne within the Persian gulfe, from which Arabia called Eudæmon, i. happy, begins and runneth forth in length; scituate it is vpon a mount artificially reared by mans hands between the confluent of Tygris on the right hand, and Eulæus on the left; and yet notwithstanding it carrieth a pourprise or precinct of three miles compasse. Founded first it was by *Alexander* the great, who hauing drawne Coloners to inhabite it out of the kings city Durine (which then was ruinat) and leauing there behind him those soldiers which were not fit for seruice, nor able to follow in the march, ordained, that this towne should be called Alexandria: and the territory about it Pellæum, of the towne where himselfe was born: and withall appointed, that it should be peopled only with Macedonians. But this towne of his by him founded, was ouerthrowne and destroyed by the two riuers aforesaid. Afterwards *K. Antiochus* the first rebuilt it againe, and named it of himselfe Antiochia. But when it was decayed a second time by these riuers, *Spasines*, son of *Sogdonacus*, who held Arabia, bordering neere by as an absolute king, and not (as *Tuba* reporteth) as a duke or gouernor vnder *Alexander*, raised great wharfes, and opposed mightie dams and caufies against those riuers, and so re-edified the towne a third time. Which done, he called it after his own name Charax of Spasines: and verily hee fortified thus the site and foundation thereof, three miles in length, and little lesse in breadth. At the beginning it stood vpon the sea-coast, and from the water side not aboue ten stadia, and euen from thence it hath certain false bastard galleries: but by the report of *Tuba* in his time, 50 miles. Howbeit, at this day both the Arabian Embassadors, and also our merchants that come from thence, say it is from the sea shore 125 miles. In such sort, that it cannot be found in any place of the world againe, where the earth hath gained more, nor in so short a time, of the water, by reason of the store of mud brought down with riuers. And the more maruell it is, that considering the sea floweth, and the tide riseth far beyond this towne, yet those made grounds are not beaten back, and carried away againe. In this very towne I am not ignorant that *Dionysius* the latest of our moderne Geographers was born, whom *Augustus* the Emperor sent of purpose beforehand into the East countries to discouer those parts, and record faithfully in writing whatsoever he there found, for the better aduertisement of his elder son, who was vpon his voyage and expedition of Armenia, to war against the Parthians and Arabians. Neither haue I forgotten, that in my first entrance into this worke in hand, I made some protestation to follow those who had written of their owne countries, as men lightly most diligent and of best intelligences in that behalfe. Howbeit, in this place I chuse rather to follow our martiall captaines that haue warred there, and report me also to *K. Tuba*, who hath written certain books to *C. Cesar Caligula*, as touching the occurrences in the Arabian voiage.

CHAP. XXVIII.

¶ Arabia, Nomades, Nabatei, and Omani: Tylos and Ogyris two Islands.

- A Arabia commeth behind no country in the world, for largenesse and greatnesse, especially reaching out in length a mighty way. For it beginneth at the fall and descent of the mountaine Amanus ouer-against Cilicia and Comagene, as we haue before said: where it is peopled with many nations brought from thence thither by *Tigranes* the great, to inhabite that quarter, and in old time descended naturally, and reached as far as to our sea & the Egyptian coast, as we haue shewed; yea, and extendeth into the midland parts of Syria to the mountain Libanus, where the hills reach vp to the very clouds: vpon which bound the Ramisians, then the Taraneans, and after them the Patami. As for Arabia it selfe, being like a demie Island, runneth out between two seas, the red and the Persian, by a certain artificiall workmanship of nature, framed according to Italy in likenesse of forme and bignes: yea, and lieth along the sea coasts in manner of Italy. And more than that, it regardeth the same quarter and line of heauen, without any difference at all. This tract thereof, for the rich seat it hath, is named *Felix*, i. Happy. The nations therein dwelling, from our sea-coasts to the deserts of Palmyreum, wee haue treated of already. Therefore ouerpassing them, we will discourse of the rest forward. Now then, the Nomades & those robbers that so lie vpon the Chaldeans & trouble them, the people called Scenitæ, as we haue before said, do confine vpon. And euen they also make no certain place of abode and habitation, but are called Scenitæ, of their tabernacles and booths which they

they make of haire clothes, and encamp vnder them when & where they list. Being past them, you meet with the Nabataeans in the vale, who inhabite a towne there named Petra, little lesse than 2 miles large; inuironed with steep mountains round about, which cut off al the aduenues to it; and besides, hauing a riuer running through the midst thereof. Distant it is from Gaza (a town scituar vpon our coast in Syria) 600 miles: and from the Persian gulf 122. And here at this town meet both the port high waies, to wit, the one which passengers trauell to Palmyra in Syria, and the other, wherein they go from Gaza. Beyond Petra and the vale thereof, you enter into the Omanes country: which reached somtime as far as to Carax, and inhabited 2 famous towns built by queen *Semiramis*, namely, *Abefanius*, and *Soraetia*. But now all is but a wilderness. Then come you to a town named *Forath*, scituar vpon the riuer *Pasitigris*, and subiect to the king of the *Caracins* or *Zarazins*: to which towne there is much resort from Petra, as to a shire towne: and from thence to *Charax*, they may passe with the tide when the water ebbeth for the space of 12 miles. But they that come by water out of the Parthian kingdom, meet with a village called *Teredon*, lower than the place where *Euphrates* and *Tigris* meet together in one. Where the *Chaldeans* inhabit the left hand coast of the riuer, and the *Nomades* called *Scenitæ*, the right. Some writers affirm, that as ye saile and row vpon the riuer *Tigris*, yee passe by two other townes distant far asunder: the one called *Barbatia* in times past, and afterwards *Thumata*, which our merchants that trafficke in those parts, auouch to be ten daies saile from Petra, and is vnder the king of the *Characenes*: and the other *Apamia*, scituar in the very place where *Euphrates* the riuer so swellth ouer his bankes, that he ioineth with *Tigris* in one confluēt. And therefore the *Apamians*, at what time as the *Parthians* are about to make inrodes and inuade their territorie, set open the sluices, and breake vp the wharfes and banks that keepe these two riuers asunder, and so impeach their enterprife by the ouerflow and inundation of the waters. Now being past *Charax*, we will discourse of the other coasts of Arabia, & namely that which first was discovered and declared by *Epiphanes*. And to begin with the place where sometime the mouth of *Euphrates* was. When you are once past it, you meet with a riuer of salt brackish water, and the promontory or cape *Chaldonum*: where the sea is more like a deep pit or whirlepoole than a sea, for 50 miles. Vpon this coast you find the riuer *Achana*, and beyond it, deserts for 100 miles, vntill you come to the Island *Ichara*. Then sheweth it selfe the gulf or arme of the sea named *Capeus*, vpon which inhabit the *Gaulopes* and *Chateni*. Beyond them another creeke called *Gerraeus*, and the towne *Gerræ* vpon it, fife miles large, & fortified with turrets made of great huge stones squared, of salt minerall. Fifty miles from the sea side is the region *Attene*: and ouer-against it the Island *Tylos*, as many miles from the shore, with a town in it, bearing the name of the Island, much frequented by merchants for the plentie of pearles that there be sold: and not far from it there is another somewhat lesse, not past 12 miles from the cape of the foresaid *Tylos*. Beyond these there are discovered by report certaine great Islands, but as yet they haue not bin landed vpon by our merchants. As for this last Island, it containeth as they say 112 miles and an halfe in circuit, & is far from *Persis*; but no access there is vnto it, but only by one narrow gutter or channell. Then sheweth it selfe the Island *Afgilia*. And in these parts likewise are other nations, namely, the *Nocheti*, *Zurachi*, *Borgodi*, *Cataræi*, and *Nomades*: and withall the riuer *Cynos*. Beyond that, as *K. Iuba* saith, there is no more discovered vpon this sea of that side, by reason of the dangerous rockes therein. And *Maruelli* much that he hath made no mention at all of the towne *Batralsabe* in the *Omanians* country, ne yet of *Omana*, which the ancient Geographers haue held to be an haue of great importance in the kingdom of *Carmania*. Item, he saith not a word of *Omne* and *Athana*, which our merchants report to be at this day 2 famous mart towns, much frequented by those that trafficke from the Persian gulf. Beyond the riuer *Caius*, as *K. Iuba* writeth, there is an hill, which seemeth all scorched and burnt. Past which, you enter into the countrie of the *Epimaranites*: and anon after into the region of the *Ichthyophagi*: and past them there is discovered a desert Island, and the *Bathymians* country: and so forward, the mountaines *Eblitæ* are discovered, and the Island *Omoenus*, the haue *Machorbæ*, the Islands *Etaxalos*, *Onchobrice*, and the people called *Chadæi*. Many other verie neere thereto, wherein are standing certaine Columnes or pillars of stone engrauen with vnknowne Characters and Letters. A little beyond the port towne *Gobcea*, and the desert vnpeopled Islands *Brageæ*. The Nation of the *Thaludæans*: the

A the region *Dabanegoris*, the mountaine *Offa* with an haue vnder it: the gulf or arme of the sea called *Duatus*, with many Islands therein. Also the mountaine *Tricoryphus*: the countrie *Cardalena*, the Islands *Solanida* and *Capina*. Soone after you fall vpon other Islands of the *Ichthyophagi*: and after them the people called *Garians*. The Island called *Hammaum*, wherein are golden mines. The region *Canaana*. The people *Apitami* and *Gasani*. The Island *Deuadæ*, with the fontaine *Goratus*. Then come you to the *Garpheis* country: the Islands *Aleu* & *Amamesthi*. Beyond which are the people called *Daræi*, the Island *Chelonitis*, & many other of the *Ichthyophagi*. The Isle *Bodanda* which lieth desert, & *Balsæ*, besides many other that belong to the *Sabaens*. For riuers you haue *Thamar* & *Ammon*, & in the Islands *Dahæ*, wherein be the fontaines *Daulores* and *Dora*. Islands besides, to wit, *Pretos*, *Labaris*, *Covorisa*, and *Sambacate*, with a towne named also in the firme land. On the South side many Islands there be, but the greatest of them all is *Camar*. Then haue you the riuer *Mystecros*, the haue *Leupæ*, & the *Sabaens* called *Scenitæ*, for that they liue vnder tabernacles & tents. Moreover, many other Islands. The chiefeest mart or town of merchandise in those parts is *Acila*, where the merchants vse to imbarke for their voiage into India. Then followeth the region *Amithofentia*, and *Dammia*. The *Misians*, both the greater and the lesse: the *Dimutians* and *Maca*. A promontory of theirs is ouer-against *Carmania*, and distant from it 50 miles. A wondrous thing is reported to haue bin there done, & that is this: that *Nimeneus* Lord deputy vnder *K. Antiochus*, ouer *Mesena*, & general of his army, defeated the navy of the *Persians* in sea-fight, and the same day with the opportunity of the tide returned to land againe, & gaue their horsemen an ouerthrow to it: whereupon, in memoriall of a twofold victory in one day achieved, he erected 2 triumphant trophies, the one in honor of *Iupiter*, & the other of *Neptune*. Farre within the deep sea there lieth another Island called *Ogyris*, distant from the continent 125 miles, and containing in circuit 112, much renowned for the sepulchre of *K. Erythra*, who there was enteried. Another likewise there is of no lesse account, called *Dioscoridæ*, lying in the sea *Azanium* and is from *Syagrum*, the vtmost point or cape of the main, 280 miles. But to returne to the Continent: there remaine yet not spoken of, the *Antarides* toward the South, as you turn to the mountains, which continue for 7 daies iourney ouer: then these nations, *Larendanæ*, *Catabanæ*, and *Gebanites*: who haue many townes, but the greatest are *Nagia* and *Tamna*, with 65 churches or temples within it, whereby a man may know how great it is. From thence you come to a promontory, from which to the continent of the *Troglodites* it is 30 miles. And in those quarters remaine the *Toanes*, *Acchitæ*, *Charramoritæ*, *Tomabei*, *Antidalei*, *Dexiana*, *Agrei*, *Cerban*, and *Sabæi*, of all the *Arabians* for their store of frankincense most famous, as also for the largenesse of their country, reaching from sea to sea. Their townes scituate vpon the coast of the red sea, are *Marane*, *Marmia*, *Cocolia* and *Sabatra*. Within the firme land are these townes, *Nascus*, *Cardaua*, *Carnus*, and *Tomala*, where the *Sabaens* keep their faires and markets for to vent and sel their commodities of incense, myrrhe, and such drugs and spices. One part of them are the *Atramites*, whose capitall city *Sobotale*, hath within the walls thereof 60 temples. But the roiall city and chiefe seat of the whole kingdom is *Nariaba*, scituar vpon a gulf or arme of the sea that reacheth into the land 94 miles, full of Islands, beautified with sweet odoriferous trees. Vpon the *Atramites* within the main land joine the *Minæi*: but the *Elamites* inhabit the maritime coast, where there standeth a city also called *Elamitum*. To them the *Agulates* lye close: and their head towne is *Siby*, which the Greekes name *Apare*. Then come you to the *Arficodani* and *Vadei*, with a great towne: and the *Barabei*: beyond whom is *Eichemia*, and the Island *Sygaros*, into which no dogs will come willingly: and if any be put there, they will neuer lin wandring about the shore vntill they die. In the farthest part of the aboue-said gulf are the *Leantites*, whereof the gulf tooke the name *Leantites*. Their head seat and roiall seat is *Agra*: but the city *Leana*, or as others would haue it, *Elana*, is scituate vpon the verie gulf. And hereupon our writers haue called that arme of the sea *Elaniticum*, others *Elenaticum*; *Artemidorus*, *Aleniticum*; and king *Iuba*, *Laniticum*. Arabia is reported to take in circuit from *Charax* to *Leana*, 4870 miles. But *Iuba* thinketh it somewhat lesse than 4000. Widest it is in the North parts betweene the townes *Herous* and *Chrace*. Now it remaineth that wee speake of other parts within the Mid-land thereof. Vpon the *Nabatai*, the *Thimaneans* doe border, after the description of the old Geographers: but at this day, the *Tauenes*, *Surellenes*, and *Saracenes*: their principall Towne is *Arra*, wherein is the greatest trafficke and resort

resort of merchants. Moreover, the Hemnates and Analites, whose townes are Domada and E-
rage: also the Thamufians, with their towne Badanathat the Carreans, and their towne Charia-
ti: the Achoali, and a city of theirs Phoda. Furthermore, the Minai, descended as some thinke
from *Minos* king of Crete, whose citie *Charmæ* hath 14 miles in compasse. Other towns like-
wise be there standing a far off, and namely, Mariaba, Baramalaoun, a town ywis of no mean ac-
count: likewise Carnon, and Ramei, who are thought to come from *Rhadamanthus* the brother
of *Minos*. Ouer and besides, the Homerites, with their towne Masala: the Hamirci, Gedrani-
æ, Anapræ, Illianitæ, Bochilitæ, Sammei, and Amatheï, with these townes Nefsa and Cennel-
feri. The Zamanenes, with these townes, Saiace, Seantate, and Bacasmani: the towne Rhiphcar-
ma, which in the Arabian tongue signifieth Barley: also the Antei, Rapi, Gyrei, and Marhatæi.
The Helmadenes, with the towne Ebode. The Agarturi in the mountaines, hauing a towne 20
miles about, wherein is a fountaine called Emischabales, that is as much to say, as The Car-
melstown. Ampelone, a colony of the Milesians: the towne Atrida: and the people Calingij,
whose towne is named Mariaba, as much to say as, Lords of all. Towns moreover, Pallon & Mu-
rannimal, neere vnto a riuer, by which men thinke that Euphrates springeth and breaketh forth
aboue ground. Other nations besides, namely, Agrei and Ammonij, with a towne, Athenæ: and
the Caurarani, which signifieth, Most rich in droues of cattell. Then the Caranites, Cæfanes,
and Choanes. There were sometime also certaine townes in Arabia, held by Greeks, and name-
ly, Arethusa, Larissa, and Chalcis, which all in the end came to ruine and were destroyed in di-
uers and sundry wars. The onely man among the Romans vntill this day that warred in those
parts, was *Ælius Gallus* a knight of Rome. As for *Caius Caesar* the son of *Augustus* the Emperor,
he did but looke only into Arabia, and no more: but *Gallus* wasted townes that were not once
named by Authors that wrote before, namely Egra, Anestum, Essia, Magusum, Tamuracum,
Laberia, and the aboue-named Mariaba, which was in circuit six miles about: likewise Cari-
peta, the farthest that he went vnto. As for all other matters, he made report vnto the Senate of
Rome, according as he had found and discovered in those parts; to wit, that the Nomades liue
of milke and venison: the rest of the Arabians presse wine, like as the Indians do, out of dates:
and oile of Sefama, a kinde of graine or pulse in those countries. That the Homerites country
of all others is most populous and replenished with people: the Minæans haue plenteous and
fruitfull fields, full of date trees and goodly horthyards stored with all sorts of fruit: but their
principall riches lieth in cattell. The Cembanes and Arians are good warriors and martiall
men, but the Charramorites that way excell all the rest. The Caræans haue the largest territo-
ries and most fertile fields for corne. As for the Sabæans, their wealth standeth most vpon their
woods and trees, that bring forth the sweet gums of Frankincense and myrrhe: also in mines of
gold: hauing water at commandement to refresh their lands, and plenty besides of hony & wax.
As concerning the sweet odours and spices that come from thence, we will speake thereof in a
feuerall booke by it selfe. The Arabians weare miters or turbants ordinarily vpon their heads,
or else go with their haire long and neuer cut it: as for their beards, them they shauæ, saue only
on their vpper lippe, which they let grow still: and yet some of them there be that suffer their
beards to grow long and neuer cut them. But this one thing I maruell much at, that being such
an infinit number of nations as they be, the one halfe of them liue by robberie and theeuing,
howsoeuer the other liue by traffick and merchandise. Take them generally, they be exceeding
rich; for with them the Romans and Parthians leaue exceeding sums of gold and siluer, for the
commodities out of their woods and seas which they sell vnto them: but they themselues buy
nothing of them againe. Now will we speake of the other coast opposite vnto Arabia. *Timosthe-
nes* hath set downe, that the whole gulf or arm of the sea called Red, was from one end to the
other foure daies failing: and from side to side, two daies: that the streights of the firth were
seuen miles ouer. But *Eratosthenes* saith, that taking the measure at the very mouth, it is euerie
way 1300 miles.

CHAP. XXIX.

¶ The gulf of the Red Sea: likewise of the Trogloditick and Ethiopian Seas.

A *Artemidorus* auoucheth, that the Red Sea toward Arabia side, is 1450 miles: but on the
coast of the Troglodites 1182, vntill you come to the citie Ptolemais. Most Geogra-
phers haue set downe the breadth thereof to bee 462 miles: and that the mouth of it
where,

A where it openeth wide, ful against sun-rising in winter [i. South-west]. Some say, is 7 miles broad,
and others 11. As for the posture scituation thereof, thus it lyeth: beyond the branch or arme
thereof called Ælaniticus, there is another creeke which the Arabians call Eant, vpon which
standeth the towne Heroon. In old time there was a city called Cambisus, betweene the Nelians
and Marchandians, into which the sicke and feeble souldiers of our armie were conueied, as to
a place of retreat and repose. Beyond which, you enter into the land of Tyra: and there is the
port Daneon to be seene, from which *Sesostris* a king of Egypt, was the first that imagined and
devised to draw one arme of it with a channell nauigable, into Nilus, in that part where it run-
neth to the place called Delta, and that for 62 miles space, which is between the said riuer and
the red sea. This enterprife of his was followed by *Darius* king of the Persians: yea and by *Pto-
lomeus* king of Egypt, second of that name, who made a channell 100 foot ouer, and 30 deep, for
37 miles in length and an halfe, euen to the bitter fountaines. But this designe was interr-
upted and the ditch went no farther, for feare of a generall deluge and inundation: for found it
was, that the red sea lay aboue the land of Egypt three cubits. Some alledge not that to be the
cause, but this, namely, That if the sea were let into Nilus, the sweet water thereof (whereof they
drinke only and of none else) should be corrupted thereby and marred. Yet neuerthelesse, al-
though this worke went not forward, the way is well beaten all the country ouer betweene the
Red sea, and the Ægyptian, for trafficke: and three feuerall ordinarie waies there are between:
the one from Pelusium ouer the sands, where, vnles there be reeds set vp pitched in the ground
to giue guidance and direction, there would no path be found, for euier & anon the wind blow-
eth the sand ouer the tracts of mens feet and couereth all. A second beginneth 2 miles beyond
the mountaine Casius, which after 60 miles commeth into the former Pelusiacke way. (Vpon
this great rode way, the Arabians called Autei, do inhabit.) The third taketh his head and be-
ginning at Gereum, which they call Adipson, and holdeth on through the said Arabians, & is
60 miles neerer way, but full of craggie hills and altogether without waters. All these fore-
said waies lead to the city Arsinoe, built vpon the gulf Charandra by *Ptolomeus Philadelphus*, and
bare his sisters name: and verily hee was the first that discovered those parts, and searched nar-
rowly into the region Trogloditicum: and the riuer that passeth by Arsinoe, he called *Ptole-
maus*. Within a litle of this place, there is a little town named Ænnum, for which, some there
be that write, Philotera. Beyond them, are the Azarei: Arabians of the wilder sort & halfe Tro-
glodites, by reason they marry their wiues from out of the Troglodites country. Beeing past
these coasts, you shall finde the Islands Sapyrene and Scytala: and within a litle thereof, de-
serts vntil you come to Myos-hormos, where there is a fountaine called Taduos, the mount
Eos, the Island Lambe, many hauens besides, and Berenice a town, bearing the name of the mo-
ther to *K. Ptolomeus Philadelphus*, to which there is a way lying from Coptos, as we haue said: &
last of all the Arabians called Autei, and Gnebadei. Now it remaineth to speake of the region
Trogloditicum, which the antient men of old time called Michoe; & others Midoe: & therein
standeth the mountaine Pentadaetylos. Vpon the coast of this country, there lie to be seene cer-
taine Islands called Stenæ-deiræ: and others no fewer in number named Halonnefi: also Car-
damine, and Topazos, which Island gaue the name to the precious stone called the Topaze.
Then come you to an arme of the sea betweene two lands, full of pettie Islands, whereof that
which is called Mareu, is well serued with water sufficient: another, Eratonos, is altogether dry
and vnprovided of fresh water. These Islands tooke name of two captains and gouernors there
vnder the king. Within-forth farther into the firm land, inhabit the Candei, whom they call
Ophiophagi, because they are wont to feed on serpents: and in truth there is not another coun-
try that breeds them more than it. *K. Iuba* who seemeth to haue taken great paines in the dili-
gent perusing and discovery of these parts, omitted in all this tract (vnlesse there be some fault
and defect in them that copied out his first originall) to speake of a second city named Bere-
nice, with the addition of Panchryfos, as also of a third called Epidires, and yet renowned it is
in regard of the place wherupon it is seated: for scituate it is vpon a knap of land bearing far into
the red sea, euen where the mouth of it is not aboue 4 miles & an halfe, from Arabia. Within
the prospect of this tract there is the Island Cytis, which also bringeth forth good store of the
Topaze stones. Beyond this quarter, nothing but woods and Forrests, where *K. Ptolomeus* furna-
med *Philadelphus* built the city Ptolemais, onely for to chafe and hunt the Elephant, neere to
the lake Monoleus, and in regard of his game there, he named it Epi-theras. This is the verie
country

country mentioned by me in the second book: wherein for 45 daies before Mid-summer, or the entrance of the Sun into Cancer, and as many after, by the fixt houre of the day, that is to say, about noone, no shadows are to be seen: which being once past, all the day after they fall into the South. As for other daies of the yere besides, they flow into the North: whereas in that citie Berenice which we mentioned first, vpon the very day only of the Sun-stead, at the sixth houre or noon-tide, the shadows are cleane gone and none to be scene (for otherwise there is no alteration at all to be obserued throughout the yere) for the space of 600 miles all about Ptolemis. A strange & notable thing worth obseruation, that it should be so but in one houre all the yere long, and a matter that gaue great light and direction to the world, yea and ministered occasion to a singular inuention and subtil conclusion: for *Erastosthenes* vpon this vndoubted argument and demonstration of the diuersitie of shadows, set in hand hereupon to take the measure of the whole globe of the earth, and put it downe in writing to all posteritie. Beyond this city Ptolemis, the sea changeth his name and is called Azanium; ouer which the cape sheweth it selfe, which some haue written by the name of Hispalus: also, anon appeareth the lake Mandalum, and in it the Island Colocastis, but in the deep sea many more, wherein are taken many tortoises. Farther vpon this coast is the towne Sucha, and then you may discouer in the sea the Island Daphnis, and the city Aduliron, built by certaine Egyptian slaues who ran away from their masters and took no leaue: and verily this is the greatest and most frequented mart towne of all the Troglodites country, and put the Egyptians to them: and it is from Ptolemis 5 daies sailing. Thither is brought great store of yuorie, or the Elephants tooth, and of the horn of the Rhinoceros: there many a man haue plenty of the sea-horse hides, of tortoise shels, of little Monkeys, or Marmosets: there also a man may be sped with bondslaues. A little beyond are the Ethiopians, called Aroteres: also the Islands named Aliaa: and besides them other Islands, namely, Bacchias, Antibacchias, and Stratonis: being past them, there is a gulf in the coast of Ethiopia, as yet not discouered or knowne by any name: a thing that may make vs maruel much, considering that our merchants search into farther corners than so. Also a promontory, wherein there is a fountaine of fresh water named Curios, much desired of the sailers that passe that way, and in great respect for the refreshing that it yeeldeth vnto them: beyond it, is the harbor or port of Ihs, distant from the towne of the Adulites aboue said, ten days rowing with ores; and thither is the Troglodites myrrhe brought, and there laid vp. Before this haven, there lie in the sea two Islands, named Pseudopylae: and as many farther within, called Pylae: in the one of them be certaine pillers of stones, ingrauen with strange and vnkowne Letters. When you are past this haven, you come to an arme of the sea called Abalites: within it is the Island Diodori, and other lying desart and vnpeopled. Also along the continent, there is much wildernesse: but being past them, you come to the towne Gaza: the promontorie also & port Mossylites, vnto which store of cynamon and canell is brought. Thus far marched *K. Sestris* with his army. Some writers make mention of one town more in Ethiopia beyond all this, vpon the sea side, called Baradaza. *K. Iuba* would haue the Atlantick sea to begin at the promontorie or cape aboue named, Mossylites: on which sea (as he saith) a man may saile very well with a West-north-west winde, by the coasts of his kingdomes of Mauritania or Marocco, as farre as to the coasts of Gibraltar called Gades: and sure he speaketh so confidently thereof, as I will not altogether discredit his resolution in this behalfe. From a promontorie of the Indians called Leptaeira, and by others Drepanum, vnto the Isle of Malchu, hee saith plainly, that by a straight and direct course it is 15 hundred miles, and neuer reckon those parts that are burnt with the Sun. From thence to a place called Sceneos, he affirmeth it is 25 miles: and from it to the Island Sadanum, 150 miles; and thus by this means he concludeth, that in all, to the open and knowne sea, it is 1885 miles. But all other writers besides him were of opinion, that there could not possibly be any sailing vpon it, for the exceeding heat of the Sun. Ouer and besides, the Arabians named Ascita, doe much harme and annoyance from out of the Islands which they hold, vnto merchants that trafficke that way: for these Arabians, according as their name doth import, couple bottles made of good oxe leather, two by two together, and going vpon them with ease as it were a bridge vnder them, scoure the seas, and shooting their empoysoned arrowes, practise pyracie, to the great losse and mischief of merchants & sailers. The same *Iuba* writeth moreover, that there be certaine people of the Troglodites, named Therothoes, for their hunting of wilde beasts, of their exceeding and wonderful swiftnesse in chasing of Deere vpon

vpon land: as the Ichthyophagi for coursing of fish in the sea, swimming as naturally as if they were water creatures. Moreover, he nameth other nations in those parts, as the Bargeni, Zageres, Chalybes, Saxina, Syrees, Daremes and Domazanes. Furthermore, he affirmeth, that the people inhabiting along the sides of Nilus from Syene vnto Meroe, are not Ethiopians, but Arabians, who for to seeke fresh water, approached Nilus; and there dwelt: as also that the citie of the Sunne, which we said before in the description of Egypt, standeth not farre from Memphis, was first founded and built by the Arabians. Contrariwise, other Geographers there be, who affirme that the farther side or banke of Nilus is no part of Ethiopia, and they lay it as a dependant annexed to Affrick. But be it as will be, I wil not greatly busie my head thereabout, but suffer euery man to abound in his own sence, and haue his own way: only I will content my selfe with this, to set downe the townes on both sides thereof, in that order as they are declared vnto me. And first to begin with that side toward Arabia: after you are past Syene, enter you shall vpon the countrie of the Catadupi, and so forward into the land of the Syenites. Wherin these towns stand in order as folloves: Tacompson, which some haue called Thaire, Aranium, Sefanium, Sandura, Nasandum, Anadoma, Cumara, Beda and Bochiana, Leuphithorga, Tantaraene, Machindira, Noa, Gophoa, Gystata, Megeda, Lea, Rhemnina, Nupfia, Direa, Patara, Bagada, Dumana, Rhadata, wherein a golden cat is worshiped as a god. Boron in the midland part of the continent, and Mallos, the next towne to Meroe. Thus hath *Bion* digested and set them downe. But king *Iuba* hath ranged them otherwise in this manner. First, Megatichos a towne situate vpon a hill betweene Egypt and Ethiopia, which the Arabians vse to call Mysion: next to it Tacompson: then Aranium, Sefanium, Pide, Mamuda, and Corambis; neere vnto it a fountaine of liquid Bitumen: Hammodara, Prosda, Parenta, Mama, Thessara, Gallæ, Zoton, Graucome, Emcum, Pidibota, Hebdometacometa, and the Nomades, who ordinarily are encamped vnder tents and paulions. Cyste, Pemma, Gadagale, Palois, Primmis, Nupfis, Dafelis, Paris, Gambrenes, Magafes, Segafinala, Cranda, Denna, Cadeuna, Thena, Batha, Alana, Macum, Scammos, and Gora within an Island. Beyond which, Abala, Androcanis, Seres, Mallos & Agoce. And thus much on the side of Arabia. Now for Affrick side, they are in this wise reckoned. First, Tacomplos, according to the others name, or a parcell rather of the former: then, Magora, Sea, Edosa, Pelcnaria, Pyndis, Magusa, Bauma, Linitima, Spyntuma, Sydopta, Genfoa, Pindictora, Eugo, Orfima, Suasa, Maunia, Rhuma, Vrbubuma, Mulona, which town the Greeks were wont to call, Hypaton, Pagoargas, Zanones, & there begin the Elephants to come in, Mamblia, Berresa, Cetuma. There was moreover a towne sometime named Epis, situate against Meroe: but raised it was and vtterly destroyed before that *Bion* wrote his Geography. See what cities and towns of name were recorded in times past to haue bin in those parts, vntil you come to the Isle Meroe. And yet at this day there is neither stick nor stone to be found of any of them in a manner on neither side. Only desarts and a vast wildernesse in stead of them, by report made vnto *Nero* the Emperour by the Prætorian souldiers, sent thither from him vnder the leading of a Tribune or Colonel, to discouer those quarters of Ethiopia, & to relate accordingly at what time as among other his designs, that Prince intended an expedition with his army against the Ethiopians. And yet before his time, euen in the daies of *Augustus Caesar* of happie memory, the Romanes pierced thither with a power of armed men vnder the conduct of *Pub. Petronius*, a knight of Rome, and gouernour of Egypt, deputed by the said Emperour. Where he forced by assault and conquered all those townes in Ethiopia which he then found standing in this order following: namely, Pselcis, Primis, Abaccis, Phthuris, Cambufis, Attrena, Stadifis, where the riuer Nilus runs down with such a mighty fall, that with the noise thereof the inhabitants there by lose their hearing and become deafe. Besides these he won also and sacked Napata. And albeit he marched forward still a great way into the countrie, euen 870 miles beyond Syene, yet this Romane armie of his laid not all wast in those parts, & left the country so desart as now it is. No, no: it was the Egyptians warres and not the Romanes that gaue the wast to Ethiopia: and albeit somtimes it woon and otherwhiles lost, one time bare the scepter and ruled, another time vnderwent the yoke, and were subdued: yet was it of great name in the world and puissant, vntill the reigne of king *Memnon*, who ruled at the time of the Troiane war: yea, and Syria was subiect vnto it, as also the coast of our sea in king *Cephas* daies, as appeareth by the fabulous tales that go as touching *Andromeda*. Semblably the Geographers varie and disagree much about the measure and dimension of Ethiopia. And first of al others, *Dalio*, albeit

beit he passed far beyond Meroe: after him, *Aristocreon*, *Bion*, and *Basilis*. As for *Simonides* (the younger and the later writer) had sojourned the Meroe five yeares, when he wrote of *Ethiopia*. For *Timotheus* the Admirall of *Ptolomæus Philadelphus* his nauie, hath left in record, that from Syene to Meroe is 60 daies iourney, without any further particularizing of the measure by miles. But *Eratotheus* precisely noteth, that it is 625 miles. *Artemidorus* but 600. *Schoftus* affirmeth, That from the frontiers of Egypt it is 1675 miles. From whence, the last rehearsed Writers count forward but 1270. But all this difference and dispute about this point, is lately determined & ended by the report of those traueellers whom *Nero* sent of purpose to discouer those countries; & they made relation of the truth vpon their certain knowledge, that it is 874 miles from Syene in this maner particularly by iournies. Namely, from the said Syene to Hiera-Sycaminon 54 miles: from thence to Tama 75 miles: from Tama to the Euonymites country, the first of all the *Ethiopians*, 120. Forward to Acina 54. To Pitara 25. To Tergedum 106 miles. Where by the way it is to be noted, that in the midst of this tract lieth the Island *Gagandus*: where they began first to haue a sight of the birds called *Parats*; & beyond another Isle in the same way which is called *Artigula*, they might see monies & marmosets: but being once beyond Tergedum, they met with the beasts *Cynocephali*. From thence to Napata 80 miles: this is the only little town among all the rest before named. From which to the Island Meroe is 360 miles. They reported moreover, that about Meroe (& not before) the grasse and herbs appeared fresh and green; yea, and the woods shewed somewhat in comparison of all the way besides, and that they espied the tracts of Elephants & Rhinocerotes where they had gone. As for the town it selfe Meroe, they said it was within the Isle from the very entrie therof 70 miles: & that iust by, there was another Island called *Tatu*, which yeelded a bay or haven to land at for them that took the arme & channell of Nilus on the right hand. As for the building within Meroe, there were but few houses in it: that the ile was subject to a lady or queen named *Candace*, a name that for many yerres already went from one queen to another successiue. Within this town there is the temple of great holinesse and deuotion in the honor of *Iupiter Hammon*: and in all that tract many other chappels. Finally, so long as the *Ethiopians* swaied the scepter and reigned, this Island was much renowned & very famous. For by report, they were wont to furnish the *Ethiopian* king with armed men 250000, & to maintain of Artificians 400000. Last of all there haue bin counted 45 kings of the *Ethiopians*, and so it is reported at this day.

CHAP. XXX.

¶ The manifold, strange, and wonderfull formes and shapes of men.

ALL *Ethiopia* in generall was in old time called *Etheria*: afterwards *Atlantia*: and finally of *Vulcans* son *Ethiops*, it took the name *Ethiopia*. No wonder it is, that about the coasts thereof there be found both men and beasts of strange and monstrous shapes, considering the agilitie of the suns fierie heat, so strong and powerfull in those countries, which is able to frame bodies artificially of sundry proportions, and to imprint and graue in them diuers forms. Certes, reported it is, that far within the country Eastward there are a kinde of people without any nose at all on their face, hauing their visage all plain and flat. Others again without any vpper lip, and some tonguelesse. Moreover, there is a kind of them that want a mouth, framed apart from their nose-thrills: and at one and the same hole, and no more, taketh in breath, receiueeth drinke by drawing it in with an oaten straw; yea, and after the same maner feed themselves with the grains of oats, growing on the own accord without mans labour and tillage, for their only food. And others there be, who in stead of speech and words, make signes, as well with nodding their heads, as mouing their other members. There are also among them, that before the time of *Ptolomæus Lathyrus* king of Egypt, knew no vse at all of fire. Furthermore, writers there be, who haue reported, that in the country neere vnto the meeres and marishes from whence Nilus issueth, there inhabit those little dwarfs called *Pygmei*. But to return againe to the utmost coasts of *Ethiopia*, where we left: there is a continuall raunge and course of mountains all red like fire, as if they were euer burning. Moreover, beyond Meroe there is a country lying about the *Troglodites* and the red sea: where, after you be three daies iourney from Napata toward the coast of the said red sea, you shall find that in most places they haue raine water for their ordinarie vse to drinke, and otherwise: all the country betweene is very plenteous and full

A of gold mines. All beyond this region is inhabited by the *Atabuli*, a people also of *Ethiopia*. As for the *Megabares*, whom some haue named *Adiabares*, they lie against Meroe, and haue a towne bearing the name of *Apollo*. Among them are certain *Nomades* encamping vnder tents and tabernacles, who liue of Elephants flesh. Iust against them in a part of *Africke* are the long liuing *Macrobians*. Again, being past the *Megabares*, you come vnto the *Memnonnes* & *Daveli*: & 20 daies iourney from them, to the *Critenses*. Beyond whom you meet with the *Dochi*, and the *Gymnetes* who are euer naked. Soon after you shall find the *Anderæ*, *Mathitæ*, *Mefagebes*, *Hipporeæ*, who be all ouer blacke, and therefore they colour and paint their bodies with a kind of red chalk or ruddle called *Rubrica*. But vpon the coast of *Africke* are the *Medimni*. Beyond whom you shall come to another sort of *Nomades* liuing vnder tents, who feed of no other thing but the milk of certain creatures headed like dogs, called *Cynocephali*: also to the *Olabi* and *Syrbotæ*, who are reported to be 8 cubits high. Moreover, *Aristocreon* saith, that on *Libya* side, five daies iourney from Meroe, there is a towne called *Tole*: & 12 daies iourney from thence, there standeth *Efar*, a town built by the *Egyptians*, who fled thither to auoid the cruelty and tyrannie of *K. Psammeticus*. And reported it is, that the *Egyptians* held it for 300 yerres. Also, that the same fugitiues founded the towne *Daron* on the contrary side in the coast of *Arabia*. But that which *Aristocreon* nameth *Efar*, *Bion* called *Sapa*, and saith withall, that the very word *Sapa* signifieth in the *Ethiopian* language, strangers or aliens come from other parts. Hee affirmeth besides, that their capitall city is within an Island, *Semobitis*, and that *Sai* within *Arabia*, is the third city of that nation. Now between the mountains and the riuer Nilus, are the *Symbarians* and the *Phalanges*: but vpon the very hills liue the *Afachæ*, who haue many other nations vnder them: and they are by report seuen daies iourney from the sea. They liue vpon the venison of Elephants flesh, which they vse commonly to hunt and chase. As for the Island within Nilus, of the *Semerrites*, it is subiect to a queen. And eight daies iourney from thence lieth the country of the *Ethiopians*, named *Nubæ*. Their chiefe town *Tenupris* is seated vpon the riuer Nilus. Beyond the *Nubians*, you enter vpon the countrie of the *Sambri*: where all the four-footed beasts, yea, euen the very Elephants, are without ears. Vpon the coast of *Africke* inhabit the *Ptoembati* and *Ptoemphæ*: who haue a dog for their king, and him they obey, according to the signes which he maketh by mouing the parts of his bodie, which they take to be his commandements, and religiously they do obserue them. Their head citie is *Aurispis*, far distant from Nilus. Beyond them are the *Achisarmi*, *Phaliges*, *Marigeri*, and *Casamarri*. *Bion* affirmeth, That beyond *Psemobitis*, there be other townes in the Islands of that coast, toward Meroe, all the way as you passe for 20 daies iourney. The towne of the next Island is *Semerritarum*, vnder the queen: likewise another called *Afar*. Also there is a second Island hauing in it the towne *Daron*: a third which they call *Medæ*, wherein standeth the town *Asel*: and a fourth named *Garode*, like as the towne also. Then along the banks of Nilus are many townes, to wit, *Navos*, *Modunda*, *Andabis*, *Setundum*, *Colligat*, *Secande*, *Navestabe*, *Cumi*, *Agrospi*, *Ægipa*, *Candrogari*, *Araba*, and *Summara*. The region about *Sirbithim*, where the mountains do end, is reported to haue vpon the sea coast certaine *Ethiopians* called *Niscastes* and *Nistes*, that is to say, men with three or foure eies apiece: not for that they are so eied indeed, but because they are excellent archers, & haue a speciall good eie in aiming at their marke, which lightly they will not misse. *Bion* affirmeth moreover, That from that clime of the heauen which beares about the greater Syrtis, & bendeth toward the South Ocean sea, they be called *Dalion*, to wit, the *Cisforians* and *Longopores*, who drinke and vse rain water only. And beyond *Ocalices* for five daies iourney, the *Vfibalks*, *Iuclians*, *Pharuseans*, *Valians* and *Cispians*. All the rest are nothing but deserts not inhabited. But then he telleth fabulous and incredible tales of those countries. Namely, that Westward there are people called *Nigræ*, whose king hath but one eie, and that in the mids of his forehead. Also he talketh of the *Agriophagi*, who liue most of panthers and lions flesh. Likewise of the *Pomphagi*, who eat all things whatsoever. Moreover, of the *Anthrophagi*, that feed on mans flesh. Furthermore, of the *Cynamolgi*, who haue heads like dogs.ouer and besides, the *Artabatites* who wander and go vp and downe in the forests like fourefooted sauage beasts. Beyond whom, as he saith, be the *Hesperij*, & *Pereci*, who, as we said before, were planted in the confines of *Mauritania*. In certain parts also of *Ethiopia* the people liue of Locusts only, which they powder with salt, and hang vp in smoke to harden, for their yerely provision, and these liue not above 40 yeares at the most. Finally, *Agrippa* saith that

that all Ethiopia, and take the land with it of *Prester Iehan* bordering vpon the red sea, containeth in length 2170 miles: & in bredth, together with the higher Egypt, 1291. Some Geographers haue taken the bredth in this manner. From Miroe to Sirbitum, 12 daies iournie vpon Nilus: from thence to the country of the Daullians another 12, and from them to the Ethiopian Ocean 6 daies. But in general all writers in a manner do resolute vpon this, that betwene Ocean and Meroe, it is 725 miles: and from thence to Syene, as much as we haue set downe before. As for the positure and scituation of Ethiopia, it lies Southeast & Southwest. In the meridian South parts thereof, there be great woods of Ebene especially, alwaies greene. Toward the mids of this region, there is a mighty high mountain looking ouer the sea, that burns continually, which the Greeks call *Theon ochema*. The chariot of the gods: from the which it is counted foure daies iourny by sea to the promontory or cape called *Hesperion-Ceras*, which confines vpon Africk, neere to the Hesperian Ethiopians. Some writers hold, that this tract is beautified with pretty little hils, and those pleasantly clad & garnished with shadowie groues, wherein the *Egipanes* and *Satyres* do conuerse.

Capde bonne
Esperance

CHAP. XXXI. *The Islands in the Ethiopian Sea.*

Ephorus, Eudoxus, and Timosthenes, do all agree in this, that there be very many Islands in all that sea. *Cliarchus* witnesseth, that report was made to *Alexander* the Great, of one about the rest, which was so rich and well monied, that for an ordinary horse the inhabitants would not stick to giue a talent of gold: also of another, wherein was found a sacred hill adorned with a goodly wood vpon it, where the trees distilled and dropped sweet water of a wonderful odoriferous smell. Moreover, full against the Persian gulf, lieth the Isle named *Cerne*, opposite vnto Ethiopia, but how large it is, or how far off it beareth into the sea from the continent, is not certainly knowne: this only is reported, that the Ethiopians and none but they, are the inhabitants thereof. *Ephorus* writeth, that they who would saile thither from the red sea, are not able for extreme heate to passe beyond certain columnes or pillars, for so they call the little Isles there. Howbeit *Polybius* auoucheth, that this Island *Cerne* where it lieth in the utmost coast of the Mauritanian sea ouer-against the mountain *Atlas*, is but 8 stadia from the land. And *Cornelius Nepos* affirmeth, that likewise it is not about a mile from the land, ouer-against *Carthage*: & besides, that it is not about two miles in circuit. There is mention made also by authors, of another Isle before the said mountain *Atlas*, named also therupon *Atlantis*. And fise daies sailing from it, appeare the deserts of the Ethiopian *Hesperians*, together with the foresaid cape, which we named *Hesperion-Ceras*, where the coasts of the land begin first to turn about their forefront to wind Westward, and regard the *Atlantick* sea. Just ouer-against this cape, as *Xenophon Lampiscenus* reporteth, lyc the Islands called *Gorgates*, where sometimes the *Gorgones* kept their habitation, and 2 daies sailing they are thought to be from the firme land. *Hanno*, a great commander and generall of the *Carthaginians*, landed there with an army: who made this report from thence, That the women were all ouer their bodies hairy: as for the men, he could not catch one of them, so swift they were of foot that they escaped out of all fight: but he slead two of these *Gorgone* women and brought away their skins, which for a testimoniall of his being there, and for a wonder to posteritie, he hung vp in *Iunoes* temple, where they were seen vntill *Carthage* was won and sacked. Beyond these Isles, there are by report, two more discovered, by the name of *Hesperides*. But so vncertaine are all the intelligences deliuered concerning these parts, that *Statius Sebosus* affirmeth, that it is 40 good daies sailing from the Islands of these *Gorgones* along the coast of *Atlas*, vnto the Isles of the *Hesperides*; and from thence to *Hesperion-Ceras*, but one. As little resolution and certaintie there is, as touching the Islands of *Mauritania*. In this only they all jumpe and accord, that *K. Inba* discovered some few of them ouer-against the *Autolotes*, in which he meant and purposed to die *Gartulian* purple.

CHAP. XXXII.

¶ Of the Islands *Fortunata*, or *Canarie*.

Some Authors there be who thinke, that the Islands *Fortunata*, and certaine others besides them, are beyond the *Autolotes*: among whom, the same *Sebosus* aboue rehearsed was so bold, as to speake of their distances: and namely, that the Island *Iunonia* is from *Gades* 750 miles:

750 miles: and that from it Westward, the Isles *Pluvialia* and *Capraria*, are as much. Also that in the Island *Pluvialia* there is no fresh water, but only that which they haue by showers of rain. He saith moreover, that from them to the *Fortunate Islands* are 250 miles; which lie 8 miles from the coast of *Mauritania* to the left hand, called the coast of the Sun, or Valley of the sun, for that it is like a valley or hollow leuell flore of earth, whereupon also it is called *Planaria*, resembling aneuene plain. And in very truth, this vally containeth in circuit 300 miles: wherein are trees to be seen that grow vp in height to 144 foot. As for the Islands named *Fortunata*, *Inba* learned thus much by diligent inquisition, that they lie from the South neere to the West 625 miles from the Islands *Purpuraria*, where they die purple; so as to come thither, a man must saile 210 miles about the West, and then for 75 miles more bend his course Eastward: he saith also, that the first of these Islands is called *Ombrion*, wherein ate to be seen no token or shew at all of houses. Also that among the mountains, it hath a lake or meere: and trees resembling the plant *Ferula*, out of which they presse water: that which issueth out of the black trees of that kinde, is bitter; but out of the whiter sort, sweet and potable. As for a second, he writeth that it is named *Iunonia*, wherein there is one little house or chappell made of stone: beyond it, but neere by, there is a third of the same name, but lesse than the other: and then you come to a fourth called *Capraria*, tull of great Lizards. Within a kenning from these, lyeth the Island *Niuaria*, which tooke this name of the snow that lieth there continually, and besides, it is full of mists and fogs. The next to it and the last of all, is *Canaria*, so called, by reason of a number of dogs of mighty bignesse, of which *K. Inba* brought away two; & in this Island there are some marks remaining of buildings which giue testimonie that sometime it was inhabited and peopled. And as all these Islands generally do abound plentifully in fruitfull trees, & flying fouls of all sorts: so this about the rest named *Canaria*, is replenished with rowes of date trees that beare abundance of dates, and likewise with pine trees that yeeld store of Pine nuts. Furthermore he affirmeth, that there is great plenty of hony in it: that the riuers therein are well stored with fish, and the Sturgeon especially: in which there groweth the red *Papyrus* as ordinarily as in *Nilus*. Howbeit in conclusion he saith, that these Isles are much annoied with great whales and such monsters of the sea, that daily are cast vpon the shore, which lie aboue ground & putrifie like carrion. Thus hauing at large gone through the description of the globe of the earth as well without as within, it remaineth now to knit vp briefly with the measure and compasse of the seas.

CHAP. XXXIII.

¶ A summarie of the earth, digested according to the dimensions thereof.

Polybius saith, that from the streights of *Gibraltar*, vnto the very mouth and firth of *Mæotis*, it is found by a direct and straight course to be 3437 miles and an halfe. Begin there again, and hold on a right course Eastward to *Sicily*, it is 1260 miles and an halfe. From thence forward to the Island *Creta*, 375 miles: forward to *Rhodes*, 146 miles and an halfe: to the *Chelidonia* Isles as much, and so to *Cyprus* 325 miles: from whence to *Seleucia Pieria* in *Syria* 115 miles. Which particulars being laid together, make by computation the grosse sum of 2340 miles. Howbeit, *Agrippa* counteth 3440 miles for all this distance aboue-said, beginning at the straits of *Gibraltar* aboue-said, and carrying the length straight forward to the gulf of *Issa*. In which reckoning of his, I wot not whether ther be an error in the number, forasmuch as the same writer hath set down from the streit of *Messine* in *Sicilie* to *Alexandria* in *Egypt*, 1250 miles. As for the whole circuit that may be comprehending therein, all the gulfs and creeks before-named, from the same point where we first began, as far as to the lake *Mæotis*, is 15600 miles. *Artemidorus* addeth thereto 756 miles. And the same Geographer writeth, that take the lake *Mæotis* to the rest, all cometh to 17390 miles. Lo, what the measure is of the seas taken by Philosophers and learned men, without armor and weapon in hand, of men I say, who haue not feared to hazard themselves boldly and prouoke Fortune, in trauesing the seas so farre off. Now are we to compare respectiuelly the greatnesse of each part of the world in feuerall: notwithstanding that I shall finde much ado and difficulty enough therein, considering the disagreement of authors in that behalf. But most plainly shal this appeare which we seek for, by ioining longitude & latitude together: according to which prescript rule to begin with Europe,

Europe, it may wel contain in largenes 8148 miles. Africk (taking the middle and mean computation between them all that haue set it down) containeth in length 3748 miles. As for the bredth of so much as is known and inhabited, in no place where it is widest exceedeth it 250 miles. True it is, that *Agrippa* would haue it to contain 910 miles in breadth, beginning at the bounds of Cyrene, and so comprehending in this measure the desarts thereof as far as to the Garamants, so far as is knowne and discovered, and then the whole measure collected into one generall sum, amounteth to 4608 miles. As for Asia, confessed it is and resolved vpon by all Geographers, that in length it carrieth 63750 miles: and verily in bredth (if you account from the *Aethiopian* sea to *Alexandria* situate vpon Nilus, so as your measure run through *Meroe* and *Syrene*) it taketh 1875 miles: wherby it appeareth euidently, that Europe is little wanting of halfe as big again as Asia: and the same Europa, is twise as much again as all Africa & a fixt part ouer. Reduce now all these sums together, it will be found cleare, that Europ is a third part of the whole earth, & an eight portion ouer and somewhat more: Asia, a fourth part, with an ouer-deale of 14: and Africk a fifth part, with an ouer-plus of a fixtieth portion. To this calculation, we will set to, as it were to boot, one subtil deuise & inuention more of the Greeks, which sheweth their singular wit (to the end we should omit nothing that may serue our turn in this Geographie of ours) and that is this: after that the posture and site of euery region is knowne and set downe, how a man may likewise come to the knowledge what societie and agreement there is between the one & the other, either by length of daies and nights, by the shadow at noon day, or by equality of climats of the world. To bring this about effectually, I must part and digest the whole earth into certain sections or euen portions, answerable to those in heauen; whereof there be very many) which our Astronomers and Mathematicians call Circles; but the Greeks, Parallels.

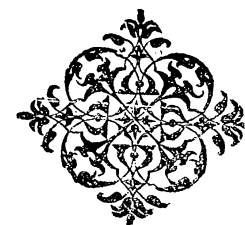
CHAP. XXXIV.

¶ The diuision of the earth into Climates or lines Parallele, and equall shadowes.

FOR to make an equall partition of the world, begin we wil at the Meridionall Indians, & go directly as far as Arabia, and the inhabitants of the red sea. Vnder this climat are comprehended the *Gedrosians*, *Persians*, *Carmanes*, and *Elimæans*: *Parthyene*, *Aria*, *Sufiane*, *Mesopotomia*, *Seleucia* surnamed *Babylonia*, Arabia, so far as *Petra* inclusiuely, *Coele-Syria*, & *Pelusium* in Egypt: the low Low-countries, which are called the tract of *Alexandria*: the maritime coasts of Africk: all the towns of *Cyrenaica*, *Thapsus*, *Adrumetum*, *Clupea*, *Carthage*, *Vtica*, both *Hippoes*, *Numidia*, both realmes of *Mauritania*, the *Atlanticke* sea, and *Hercules* pillars. In all the circumference of this climat and parrallele, at noon tide vpon an Equinoctiall day, the stile in the diall which they call *Gnomon* 7 foot long, casteth a shadow not aboue 4 foot. The longest night or day in this climate, is 14 houres: and contrariwise the shortest, ten. The second circle or parrallele line, beginneth at the Indians Occidentall, and passeth through the mids of *Parthia*, *Persopolis*, the hithermost parts of *Persis* (in respect of Rome) the hither coast of Arabia, *Iudæa*, and the borders neere vnto the mountaine *Libanus*. Vnder the same are contained also *Babylon*, *Idumæa*, *Samaria*, *Hierusalem*, *Ascalon*, *Ioppe*, *Cæsarea*, *Phenice*, *Ptolemais*, *Sydon*, *Tyros*, *Berytus*, *Betrys*, *Tripolis*, *Byblus*, *Antiochia*, *Laodicea*, *Seleucia*, the Sea coasts of *Cilicia*, *Cyprus*, the South part of *Candy*, *Lilybæum* in *Sicilia*, the North parts of *Africke* and *Numidia*. The *Gnomon* in a diall vpon the Equinoctiall day 35 foot of length, maketh a shadow 24 foot long. The longest day or night is 14 houres Equinoctial, and the fift part of an houre. The third circle beginneth at the Indians next vnto the mountaine *Imaus*, and goeth by the *Caspian* straits or streights hard by *Media*, *Cataonia*, *Cappadocia*, *Taurus*, *Amarnus*, *Issus*, the *Cilician* straits, *Soli*, *Tarsus*, *Cyprus*, *Pisidia*, *Syde* in *Pamphilia*, *Lycæonia*, *Patara* in *Lycia*, *Xanthus*, *Cannus*, *Rhodus*, *Cous*, *Halicarnassus*, *Gnidus*, *Doris*, *Chius*, *Delus*, the mids of the *Cyclades*. *Gythium*, *Malea*, *Argos*, *Laconia*, *Elis*, *Olympia*, *Messene*, *Peloponneseus*, *Syracusa*, *Carina*, the mids of *Sicily*, the South part of *Sardinia*, *Cardei*, and *Gades*. In this climate the *Gnomon* of 100 inches, yeeldeth a shadow of 77 inches. The longest day hath Equinoctiall houres 14 & an halfe, with a 30 part ouer. Vnder the fourth circle or parrallele lye they that are on the other side of *Imaus*, the South parts of *Cappadocia*, *Galaria*, *Myfia*, *Sardis*,

A *Sardis*, *Smyrna*, *Sipylus*, the mountaine *Tmolus* in *Lydia*, *Caria*, *Ionia*, *Trallis*, *Colophon*, *Ephesus*, *Miletus*, *Samos*, *Chios*, the *Icarian* sea, the *Isles Cyclades* lying Northward, *Athens*, *Megara*, *Corinth*, *Sicyon*, *Achaæa*, *Patra*, *Isthmos*, *Epirus*, the North parts of *Sicily*, * *Narbonensis* *Gallia* toward the East, the maritime parts of *Spain* beyond new *Carthage*, and so into the West. To a *Gnomon* of 21 foot, the shadowes answer of 17 foot. The longest day is fourteen Equinoctiall houres, and two third parts of an houre. The 5 diuision containeth vnder it, from the entrance of the *Caspian* sea, *Bactra*, *Iberia*, *Armenia*, *Myfia*, *Phrygia*, *Hellepontus*, *Troas*, *Tenedus*, *Abydus*, *Scepsis*, *Ilium*, the hill *Ida*, *Cyzicum*, *Lampsacum*, *Sinope*, *Anisum*, *Heraclea* in *Pontus*, *Paphlagonia*, *Lemnus*, *Imbrus*, *Thasus*, *Cassandria*, *Theflalia*, *Macedonia*, *Larissa*, *Amphipolis*, *Theflalonice*, *Pella*, *Edeffa*, *Beraæa*, *Pharfalia*, *Carystum*, *Eubœa*, *Bœotia*, *Chalcis*, *Delphi*, *Acarnania*, *Ætolia*, *Apollonia*, *Brundisium*, *Tarentum*, *Thuri*, *Locri*, *Rhegium*, *Lucani*, *Naples*, *Puteoli*, the *Tuscan* sea, *Corfica*, the *Baleare* *Isles*, the middle of *Spain*. A *Gnomon* of 7 foot giueth shadow six foot. The longest day is 15 Equinoctiall houres. The sixt parrallell compriseth the city of Rome, and containeth withall the *Caspian* nations, *Caucasus*, the North parts of *Armenia*, *Apollonia* vpon *Rhindacus*, *Nicomedia*, *Nicaæa*, *Chalcedon*, *Bizantium*, *Lyimachia*, *Cherrhonesus*, the gulfe *Melane*, *Abdera*, *Samothracia*, *Maronea*, *Ænus*, *Bessica*, the midland parts of *Thracia*, *Pœonia*, the *Illyrians*, *Dyrrhachium*, *Canusum*, the vmoost coasts of *Apulia*, *Campania*, *Hetruria*, *Pise*, *Luna*, *Luca*, *Genua*, *Liguria*, *Antipolis*, *Maffilia*, *Narbon*, *Tarracon*, the middle of *Spain* called *Tarraconensis*, & so through *Lusitania*. C To a *Gnomon* of 9 foot, the shadow is answerable 8 foot. The longest day hath 15 Equinoctiall houres, and the 9 part of an houre, or the fift, as *Nigidius* is of opinion. The 7 diuision begins at the other coast of the *Caspian* sea, and falls vpon *Callatis*, *Bosphorus*, *Borysthenes*, *Tomos*, the backe parts of *Thracia*, the *Tribals* country, the rest of *Illyricum*, the *Adriaticke* sea, *Aquileia*, *Altinum*, *Venice*, *Viceria*, *Patavium*, *Verona*, *Cremona*, *Ravenna*, *Ancona*, *Picenum*, *Marfi*, *Peligni*, *Sabini*, *Vmbria*, *Ariminum*, *Bononia*, *Placentia*, *Mediolanum*, and all beyond *Apenninum*: also ouer the Alps, *Aquitane* in *Gaule*, *Vienna*, *Pyræneum*, and *Celtiberia*. The *Gnomon* of 35 foot, casteth a shadow 36 foot in length; yet so, as in some part of the *Venetian* territorie, the shadow is equall to the *Gnomon*. The longest day is 15 Equinoctiall houres, and three fift parts of an houre. Hitherto haue we reported the labors in this point of ancient Geographers, and what they haue reported. But the most diligent and exactest modern Writers that followed, haue assigned the rest of the earth not yet specified, to three other sections or climats. The first, from *Tanais* through the lake *Metis* and the *Sarmatians*, vnto *Borysthenes*, and so by the *Dakes* and a part of *Germany*, containing therein *France* and the coasts of the Ocean, where the day is 16 houres long. A second, through the *Hyperboreans* and *Britain*, where the day is 17 houres long. Last of all is the *Scythian* parrallell, from the *Rhiphaean* hills into *Thule*: wherein (as we said) it is day and night continually by turnes, for fixe moneths. The same writers haue set downe two parrallell circles, before those points where the other began, and which we set downe. The one through the *Islands* *Meroe* and *Ptolemais* vpon the red sea, built for the hunting of Elephants, where the longest daies are but 12 houres and an halfe: the second passing through *Syrene* in *Egypt*, where the day hath 13 houres. And the same authors haue put to every one of the other circles, euen to the very last, half an houre more to the daies length than the old Geographers.

Thus much of the Earth.





THE SEVENTH BOOKE OF THE HISTORIE OF NATURE,

WRITTEN BY C. PLINIVS
SECVNDVS.

The Proeme.



Thus, as you see, we haue in the former books sufficiently treated of the vniuersall world; of the Lands, Regions, Nations, Seas, Islands, and renowned Cities therein contained. It remains now to discourse of the lining creatures comprised within the same, and their natures: a point doubtlesse that would require as deepe a speculation as any part else thereof whatsoeuer, if so be the spirit and minde of man were able to comprehend and compasse all things in the world. And to make a good entrance into this treatise and history, me thinkes of right we ought to begin at Man, for whose sake it should seeme that Nature made and produced all other creatures besides: though this great fauour of hers, so bountifull and beneficiall in that respect, hath cost them full deare. Inasmuch as it is hard to iudge, whether in so doing she hath done the part of a kinde mother, or a hard and cruell step-Dame. For first and formost, of all other lining creatures, man she hath brought forth all naked, and clothed him with the good and riches of others. To all the rest she hath giuen sufficient to clad them euery one according to their kinde; as namely, shells, cods, hard hides, prickles, shag, bristles, haire, downe feathers, quills, skales, and fleeces of wooll. The very trunks and stems of trees and plants she hath defended with barke and rinde, yea and the same sometimes double, against the iniuries of heate and cold: Man alone, poore wretch, she hath layed all naked vpon the bare earth, euen on his birth day, to cry and wrangle presently from the very first houre that hee is borne in such sort, as among so many lining creatures there is none subiect to shed teares and weepe like him. And verily to no babe or infant is it giuen once to laugh before he be forty daies old, and that is counted very early, and with the soonest. Moreouer, so soone as he is entred in this manner to enjoy the light of the Sunne, see how he is immediately tyed and bound fast, and hath no member at libertie: a thing that is not practised vpon the yong whelpes of any beast among vs, be he neuer so wilde. The childe of man thus vntowardly borne, and who another day is to rule and command all other, loe how he lieth bound hand and foot, weeping and crying, and beginning his life in miserie, as if he were to make amends and satisfaction by his punishment vnto Nature, for this onely fault and trespassse, that he is borne aline. O folly of all follies, euer to thinke (considering this simple beginning of ours) that we were sent into this world to line in pride, and carry our heads aloft! The first hope that we conceiue of our strength, the first gift that Time affoureth vs, maketh vs no better yet than foure-footed brasts. How long is it ere we can go alone? how long before we can prattle and speake, feed our selues, and chew our meat strongly? what a while continueth the mould and crowne of our heads to beate and pant, before our braine is well settled; the vndoubted marke and token that bewraieth our exceeding great weaknesse aboue all other creatures? What should I say of the infirmities and sicknesses that do soone seise vpon our feeble bodies? what need I speake of so many medicines and remedies deuised against these maladies: besides the new diseases that come euery day, able to checke and frustrate all our prouision of physike whatsoeuer? As for all other lining creatures, there is not one, but by a secret instinct of nature knoweth his own good, and wherto he is made able; some make vse of their swift feet, others of their slight wings; some are strong of limbe; others are apt to swim, and practise the same: man only knoweth nothing vnlesse he be taught; hee can neither speake, nor goe, nor eate, otherwise than he is trained to it: and to be short, apt and good as nothing he is naturally, but to pule and cry. And hereupon it is, that some haue bene of this opinion,

A opinion, That better it had been, and simply best for a man, neuer to haue been borne, or else speedily to die. None but we doe sorrow and waile, none but we are giuen to excesse and superfluitie infinitely in euery thing, and shew the same in euery member that we haue. Who but we againe are ambitious and vain-glorious? who but we are couetous and greedie of getting good? we and none but we desire to line long and neuer to die, are superstitious, carefull of our sepulture and buriall, yea and what shall betide vs when we are gone. Mans life is most fraile of all others; and in least securitie he liueth: no creature lusteth more after euery thing than he: none feareth like vnto him, and is more troubled and amazed in his fright: and if he be set once vpon anger, none more raging and wood than he. To conclud, all other lining creatures line orderly and well, after their owne kinde: we see them flocke and gather together, and ready to make head and stand against all others of a contrary kinde: the lions as fell and sauaige as they be, fight not one with another: serpents sting not serpents, nor bite one another with their venomous teeth: nay the very monsters and huge fishes of the sea, war not among themselues in their owne kinde: but beleeue me, Man at mans hand receiveth most harme and mischiefe.

CHAP. I.

¶ The strange and wondrous shapes of sundry nations.



IN our Cosmographie and reports of nations and countries, wee haue spoken in generall of all mankind, spread ouer the face of the whole earth: neither is it our purpose at this present to decipher particularly all their customes and manners of life, which were a difficult enterprise, considering how infinit they be, and as many in manner as there be societies and assemblies of men. Howbeit I thinke it good, not to ouer-passe all, but to make relation of some things concerning those people especially, who liue farthest remote from our seas; among whom I doubt not but I shall find such matter, as to most men will seeme both prodigious and incredible. And verily who euer beleeued that the Æthiopians had bin so blacke, before he saw them with his eyes: nay what is it, I pray you, that seemeth not a wonder at the first sight? How many things are judged impossible before they are scene done and effected? And certes, to speake a truth, The power and majestic of Nature, in euery particular action of hers & small things, seemeth incredible, if a man consider the same seuerally, and enter not into a generall conceit of her wholly as she is. For to say nothing of the painted peacocks feathers, of the sundry spots of tygres, luzernes, and panthers, of the variable colours and markes of so many creatures besides: let vs come to one only point, which to speake of seemes but small, but being deeply weighed and considered, is a matter of exceeding great regard, and that is, The varietie of mens speech, so many tongues and diuers languages are amongst them in the world, that one stranger to another seemeth well-necre to be no man at all. But come to view and marke the varietie that appears in our face and visage, albeit there be not past ten parts or little more therein, see how among so many thousands as we are, you shall not find any two persons, who are not distinct in countenance and different one from another: a thing that no artificer nor painter (be he neuer so cunning and his craftinafter euery way) can performe, but in a few pictures, and take what heed he can with all his curious affectation. And yet thus much must I aduertise the readers of this mine history by the way, that I will not pawne my credit for many things that herein I shall deliuer, nor bind them to beleeue all I write as touching strange and forrein nations: refer them rather I will to mine authors, whom in all points (more doubtfull than the rest) I will cite and alledge, whom they may beleeue if they list: onely let them not thinke much to follow the Greeke writers, who from time to time in this behalfe haue been more diligent in penning, and more curious in searching after antiquities.

CHAP. II.

¶ Of the Scythians, and the diuersitie of other nations.

THAT there bee Scythians, yea, and many kinds of them that feed ordinarily of mans flesh, wee haue shewed already in our former discourses. A report haply that would be thought incredible, if we did not consider and thinke withall, how in the very middle and heart of the world, euen in Sicily and Italy, here hard by, there haue bene such monsters of men,

men, namely, the Cyclopes and Lystrigones: nay, if we were not credibly informed, that euen of late daies, and go no farther than to the other side of the Alpes, there be those that kill men for sacrifice after the manner of those Scythian people; & that wants not much of chewing and eating their flesh. Moreouer, nere vnto those Scythians that inhabit toward the pole Articke, and not far from that climate which is vnder the very rising of the North-east wind, and about that famous caue or whole out of which that wind is said to issue, which place they call Gefclithron, [i. the cloister or key of the earth] the Arimaspians by report do dwell, who as we haue said before, are known by this marke, for hauing one eie only in the mids of their forehead: and these maintain war ordinarily about the mettall mines of gold, especially with griffons, a kind of wilde beasts that flie, and vse to fetch gold out of the veines of those mines (as commonly it is receiued): which sauage beasts (as many authors haue recorded, and namely, *Herodotus* & *Aristotle* the Proconnesian, two writers of greatest name) strue as eagerly to keepe and hold those golden mines, as the Arimaspians to disseize them thereof, and to get away the gold from them. About those, are other Scythians called Anthropophagi, where is a countrie named Abarimon, within a certain vaile of the mountain Imaus, wherein are found sauage & wild men, liuing and conuersing vsually among the bruit beasts, who haue their feet growing backward, & turned behind the calues of their legs, howbeit they run most swiftly. These kinde of men can endure to liue in no other aire nor in any clime else than their own, which is the reason that they cannot be drawne to come vnto other kings that border vpon them, nor could be brought vnto *Alexander* the great: as *Beton* hath reported, the marshall of that princes campe, & who also put downe his gests and iournies in writing. The former Anthropophagi or eaters of mans flesh, whom we haue placed about the North-pole, ten daies iourne by land about the riuer Borysthenes, vse to drink out of the skuls of mens heads, and to weare the scalpes haire & al, in stead of mandellions or stomachers before their breasts, according as *Isoconus* the Nicean witnesseth. The same writer affirmeth moreouer, That in Albanie there be a sort of people borne with eies like owles, whereof the sight is fire red: who from their childhood are grey headed, and can see better by night than day. He reporteth also, that tenne daies iourne beyond Borysthenes, the Sauramates neuer eat but one meale of meat in three daies. *Crates* of Pergamus saith, That in Hellespont about Parium there was a kind of men (whom he nameth Ophiogenes) that if one were stung with a serpent, with touching only, will ease the paine: and if they doe but lay their hands vpon the wound, are wont to draw forth all the venome out of the body. And *Varro* testifies, that euen at this day there be some there who warish & cure the stinging of serpents with their spittle, but there are but few such, as he saith. *Agatharcides* writes, that in Affricke the Psyllians (so called of king *Psyllus*, from whose race they were descended, and whose sepulchre or tombe is at this day present to be seene in a part of the greater Syrtis) could do the like. These men had naturally that in their own bodies, which like a deadly bane and poyson would kill all serpents: for the very aire & sent that breathed from them, was able to stupifie and strike them starke dead. And by this means they vsed to try the chastitie and honestie of their wiues. For so soon as they were deliuered of children, their manner was to expose and present the silly babes new borne, vnto the most fell and cruell serpents they could find: for if they were not right, but gotten in adultery, the said serpents would not auoid & fly from them. This nation verily in generall hath been defeated, & killed vp in manner all by the Nasamones, who now inhabit those parts wherein they dwelt: howbeit a kind remains still of them, descended from those that made shift away and fled, or else were not present at the said bloody battell, but there are very few of them at this day left. The Marsians in Italy at this present continue with the like naturall vertue against serpents: whom being reputed for to haue descended from ladie *Circes* son, the people in this regard do highly esteeme, & are verily perswaded, that they haue in them the same cultie by kinde. And what great wonder is this, considering that all men carry about them that which is poyson to serpents: for if it be true that is reported, they will no better abide the touching with mans spittle, than scalding water cast vpon them: but if it happen to light within their chawes, or mouth, especially if it come from a man that is fasting, it is present death. Beyond those Nasamones, and their neighbours confining vpon them (the Machlyes) there be found ordinarily Hermaphrodites, called Androgyni, of a double nature, and resembling both sexes, male and female, who haue carnal knowledge one of another interchangeably by turns, as *Calliphanes* reports. *Aristotle* saith moreouer, that on the right side of their breast they haue a litle

A tle teat or nipple like a man, but on the left they haue a full pap or dug like a woman. In the same Affricke, both *Isoconus* and *Nymphodorus* doe auouch, there be certain houses and families of forcerers: who, if they chance to blesse, praise, and speak good words, bewitch presently withall; insomuch as sheepe therewith die, trees wither, and infants pine and winder away. *Isoconus* adds furthermore, That such like there be among the Triballians and Illyrians, who with their very eyesight can witch, yea, and kil those whom they look wistly vpon any long time, especially if they be angry, and that their eies bewray their anger: and more subiect to this daunger be men growne, than children vnder fourteene yeares of age. This also is in them more notable and to be obserued, that in either eie they haue two sights or apples. Of this kind and property, as *Apollonides* mine author saith, there be certaine women in Scythia named Bithyæ. *Philarchus* witnesseth, That in Pontus also the whole race of the Thibians, and many others besides, haue the same quality, & doe the like: and known they are (saith he) by these markes. In one of their eies they haue two sights, in the other the print or resemblance of an horse. He reports besides of these men, that they wil neuer sinke or drowne in the water, be they charged neuer so much with weighty and heauy apparel. Not vnlike to these there are a people in Æthiopia called Pharnaces, whose sweat if it chance to touch a mans body, presently he falleth into a phthisick or consumption of the lungs. And *Cicero* a Roman writer here among vs testifieth, that generally all women that haue such double apples in their eies, haue a venomous sight and doe hurt therewith. See how nature, hauing engraffed naturally in some men this vnkind appetite (like wild beasts) to feed commonly vpon the bowels and flesh of men, hath taken delight also & pleasure to giue them inbred poisons in their whol body, yea & venom in the very eies of some, that there should be no naughtinesse in the world againe, but the same might be found in man. Not farre from Rome city, within the territory of the Falisci, there be some few houses, & families called Hirpiæ, which at their solemne yearely sacrifice celebrated by them in the honour of *Apollo* vpon the mount Soracte, walke vpon the pile of wood as it is on fire, in great iolity, and neuer a whit are burnt withall. For which cause it is ordained by an expresse act or act of the Senat, that they should be priuiledged, and haue immunity of warfare and all other seruices whatsoeuer. Some men there be that haue certaine members and parts of their bodies naturally working strange and miraculous effects, and in some cases medicinable. As for example, king *Pyrrhus*, whose great toe of his right foot was good for them that had big, swelled, or indurate spleenes, if he did but touch the parties diseased, with that toe. And they say moreouer, that when the rest of his body was burnt (after the manner) in the funerall fire, that great toe the fire had no power to consume: so, that it was bestowed in a litle case for the nones, and hung vp in the temple for a holy relique. But principally about all other countries, India and the whole tract of Æthiopia is full of these strange and miraculous things. And first & formost the beasts bred in India be very big, as it may appeare by their dogs, which for proportion are much greater than those in other parts. And trees grow there to that tallnesse, that a man cannot shoot a shaft ouer them. The reason hereof is the goodnesse and fatnesse of the ground, the temperat constitution of the aire, and the abundance of water: which is the cause also that vnder one fig tree [beleue it that list] there may certaine troupes and squadrons of horsmen stand in couert, shaded with the boughes. And as for reeds, they be of such a length, that betweene euery ioint they will yeeld sufficient to make boats able to receiue three men apeece, for to row therein at ease. There are to be seene many men there aboute fise cubits tall: neuer are they known once to spit: troubled they are not with pain in the head, tooth-ach, or griefe of the eies; and seldome or neuer complain they of any sorance in other parts of the body, so hardy are they, and of so strong a constitution thorough the moderat heat of the Sun.ouer and besides, among the Indians be certain Philosophers, whom they call Gymnosophists, who from the Sun rising to the setting thereof are able to endure all the day long, looking full against the Sunne, without winking or once mouing their eies: & from morning to night can abide to stand sometimes vpon one leg, and sometimes on the other in the sand, as scalding hot as it is. Vpon a certaine mountaine named Milus, there be men whose feet grow the tother way backward, and of either foot they haue eight toes, as *Megasthenes* doth report. And in many other hills of that country, there is a kind of men with heads like dogs, clad all ouer with skins of wild beasts, who in lieu of speech vse to bark: armed they are and well appointed with sharp and trenchant nailes: they liue vpon the prey which they get by chasing wild beasts, & fowling. *Ctesias* writes that

that there were discovered and knowne of them about 120000 in number. By whose report also, in a certaine country of India the women beare but once in their life, and their infants presently waxe grey so soone as they are borne into the world. Also, that there is a kind of people named Monocelli, that haue but one leg apeece, but they are most nimble, and hop wondrous swiftly. The same men are also called Sciopodes, for that in hottest season of the Summer, they ly along on their back, and defend themselves with their feet against the Suns heate: and these people as he saith are not farre from the Troglodites. Againe, beyond these Westward, some there be without heads standing vpon their necks, who cary eies in their shoulders. Among the Western mountains of India the Saryres haunt, (the country wherein they be, is called the region of the Cartaduli) creatures of all other most swift in footman ship: which one whiles run with all foure; otherwhiles vpon two feet only like men: but so light footed they are, that vnlesse they be very old and sick, they can neuer be taken. *Tauron* writeth, That the Choromandae are a sauage and wild people: distinct voice and speech they haue none, but in stead thereof, they keep an horrible gnashing and hideous noise: rough they are and hairy all ouer their bodies, eies they haue red like the houlets, and toothed they be like dogs. *Eudoxus* saith, That in the Southern parts of India, the men kind haue feet a cubit long, but the women so short & smal, that thereupon they be called Struthopodes, i. Sparrow footed. *Megasthenes* is my Author, that among the Indian Nomades there is a kind of people, that in stead of noses haue only two smal holes, and after the manner of snakes they haue their legs & feet limmer, wherwith they crawl and creep, and named they are Syristae. In the vtmost marches of India, Eastward, about the source & head of the riuer Ganges, there is a nation called the Astomes, for that they haue no mouths: all hairy ouer the whole body, yet clothed with soft cotton and down that come from the leaues of trees: they liue only by the aire, and smelling to sweet odors, which they draw in at their nostrills: No meat nor drinke they take, only pleasant fauours from diuers and sundry roots, flowers, and wild fruits growing in the woods they entertaine: and those they vse to carry about with them when they take any farre journey, because they would not misse their smelling. And yet if the sent be any thing strong and stinking, they are soone therewith ouercome, & dy withal. Higher in the country, and about these, even in the edge and skirts of the mountains, the Pygmaei Spythamei are reported to be: called they are so, for that they are but a cubit * or three * shaftments (or spans) high, that is to say, three times nine inches. The clime wherein they dwell is very wholsome, the aire healthy, and euer like to the temperature of the Spring: by reason that the mountains are on the North side of them, & beare off all cold blasts. And these pretty people *Homir* also hath reported to be much troubled & annoyed by cranes. The speech goeth, that in the Spring time they set out all of them in battell aray, mounted vpon the backe of rammes and goats, armed with bowes and arrowes, and so downe to the sea side they march, where they make foule worke among the egges & yong cranelings newly hatched, which they destroy without all pittie. Thus for three months this their journey and expedition continueth, and then they make an end of their valiant seruice: for otherwise if they should continue any longer, they were neuer able to withstand the new flights of this foule, grown to some strength and bignesse. As for their houses and cottages, made they are of clay or mud, fouls feathers, and birds egge shels. Howbeit, *Aristotle* writes, That these Pygmæans liue in hollow caues & holes vnder the ground. For all other matters he reports the same that all the rest. *Isogonus* saith, that certain Indians named Cyni, liue a hundred and fortie yeares. The like he thinketh of the Æthiopian Macrobij, and the Seres: as also of them that dwell on the mount Athos: and of these last rehearsed, the reason verily is rendred to be thus, because they feed of vipers flesh, & therefore is it that neither lice breed in their heads, nor other vermine in their cloths, for to hurt & annoy their bodies. *Onciscritus* affirmeth, That in those parts of India where there are no shadowes to be scene, the men are five cubits of stature, and two hand breadths ouer: that they liue 130 yeares, and neuer age for all that and seem old, but die then, as if they were in their middle and fertlet age. *Crates* of Pergamus nameth those Indians who liue about an hundred yeare, Gymnetes: but others there be, and those not a few, that call them Macrobij. *Ctesias* saith there is a race or kindred of the Indians named Pandore, inhabiting certaine vallies, who liue two hundred yeares: in their youthfull time the haire of their head is white, but as they grow to age, waxeth black. Contrariwise, others there be neer neighbours to the Macrobij, who exceed not for sixe yeares, and their women beare but once in their life time. And this also is auouched by *Agatharchides*,

Agatharchides, who affirmeth moreouer, that all their feeding is vpon locusts, and that they are very quicke and swift of foot. *Clitarchus* and *Megasthenes* both name them Mandri, and thinke they haue 300 villages in their country. Moreouer, that the women bring forth children at seuen yeares of age, and wax old at forty. *Artemidorus* affirmes, that in the Island Taprobana the people liue exceeding long without any malady or infirmitie of the body. *Duris* maketh report, That certaine Indians ingender with beasts, of which generation are bred certaine monstrous mungrels halfe beasts and halfe men. Also, that the Calingian women of India conceiue with child at five yeares of age, and liue not about eight. In another tract of that countrey there be certaine men with long shagged tailes, most swift and light of foot: and some againe that with their eares couer their whole body. The Orites are neighbours to the Indians, diuided onely from them by the riuer Arbis, who are acquainted with no other meate but fish, which they split and slice into pieces with their nailes, and roast them against the Sun, and then make bread thereof, as *Clitarchus* reporteth. *Crates* of Pergamus saith likewise, that the Troglodites about Ethyopia be swifter than horses: and that some Æthiopians are about eight cubites high: and these are a kinde of Ethiopian Nomades, called Syrbota, as he saith, dwelling along the riuer Astapus toward the North pole. As for the nation called Menismini, they dwell from the Ocean sea twenty dayes iourney, who liue of the milke of certain beasts that we call Cyncephales, hauing heads and snouts like dogs. And whole herds and flocks of the females they keepe and feed, killing the male of them all, saue onely to serue for maintenance of the breed. In the deserts of Africke ye shall meet oftentimes with Fairies, appearing in the shape of men and women, but they vanish soone away like fantastical delusions. See how Nature is disposed for the nones to deuise full wittily in this and such like pastimes to play with mankind, thereby not only to make her self merry, but to set vs a wondring at such strange miracles. And I assure you, thus dayly and houely in a manner playeth she her part, that to recount euery one of her sports by themselves, no man is able with all his wit and memory. Let it suffice therefore to testifie and declare her power, that we haue set downe those prodigious and strange workes of hers shewed in whole nations: and then go forward to discourse of some particulars approved and knowne in man.

CHAP. III.

¶ Of prodigious and monstrous births.

THAT women may bring forth three at one birth appeares evidently by the example of the three twins *Horatij* and *Curiatij*. But to go about that number is reputed and commonly spoken to be monstrous, and to portend some mishap: but only in Egypt, where women are more than ordinary fruitfull, by drinking of Nilus water, which is supposed to help generation. Of late yeres, and no longer since than in the later end of the reigne of *Aug. Cesar*, at Ostia there was a woman (a Commoners wife) deliuered at one birth of two boies & as many girles, but this was a most prodigious token, and portended no doubt the famine that ensued soone after. In Peloponnesus there is found one woman that brought forth at foure births 20 Children, and the greater part of them all did well and liued. *Trogus* saith, that in Egypt it is an ordinarie thing for a woman to haue seuen at a birth. It falleth out moreouer, that there come into the world children of both sexes, whom wee call Hermaphrodites. In old time they were knowne by the name of Androgyni, and reputed then for prodigious wonders, how soeuer now men take delight and pleasure in them. *Pompey* the great, in his Theatre which hee adorned and beautified with singular ornaments and rare deuices of antique worke, as wel for the admirable subiect and argument thereof, as the most curious and exquisite hand of cunning and skillfull artificers, among other images and pourtraicts there set vp, represented one *Eutiche* a Woman of Tralleis, who after she had in her life time borne thirty births, her corps was caried out by twenty of her children to the funerall fire to be burnt, according to the maner of that countrey. As for *Alcippe* she was deliuered of an Elephant, marie that was a monstrous and prodigious token, and foreshewed some heauy fortune that followed after. Also in the beginning of the Marfians war there was a bondwoman brought forth a Serpent. In sum, there be many misshapen monsters come that way into the world, of diuers and sundry formes. *Claudius Cesar* writeth, That in Thessalie there was borne a monster called an Hippocentaure, that is, halfe a man

a man and halfe a horse, but it died the very same day. And verily after he came to weare the diadem, we our selues saw the like monster sent vnto him out of Egypt, embalmed and preferred in honey. Among many strange examples appearing vpon record in Chronicles, we reade of a childe in Sagunt, the same yeare that it was forced and rased by *Anabal*, which so soone as it was come forth of the mothers wombe presently returned into it againe.

CHAP. IIIII.

¶ *Of the change of one Sex to another, and of Twins borne.*

IT is no lie nor fable, that females may turne to be males: for we haue found it recorded, that in the yearely Chronicles called Annals, in the yere when *Publius Licinius Crassus*, and *C. Cassius Longinus* were Consuls, there was in Cassinum a maid childe, vnder the very hand and tuition of her parents, without suspicion of being a changeling became a boy: and by an Ordinance of the Soothsayers called Aruspices, was confined to a certain desert Island, and thither conueyed. *Licinius Mutianus* reporteth, that he himselfe saw at Argos one named *Arescon*, who before time had to name *Arescusa*, and a married wife: but afterwards in proceesse of time came to haue a beard, and the generall parts testifying a man, and thereupon wedded a wife. Likewise (as he saith) he saw at Smyrna a boy changed into a girle. I my selfe am an eye witnesse, That in Africke one *L. Coscius* a citisen of Tisdruta, turned from a woman to be a man vpon the very marriage day, who liued at the time I wrot this booke. Moreover, it is obserued, that if women bring twins, it is great good hap if they all liue, but either the mother dieth in childbed, or one of the babes, if not both. But if it fortune that the twinnes be of both sexes, the one male, the other female, it is ten to one if they both escape. Moreover this is well knowne, that as women age sooner than men, and seeme old, so they grow to their maturitie more timely than men, and are apt from procreation before them. Last of all, when a woman goeth with childe, if it bee a man childe, it stirreth oftner in the wombe, and lieth commonly more to the right side: whereas the female moueth more seldom, and beareth to the left.

CHAP. V.

¶ *The Generation of Man, the time of childe-birth from seuen moneths to eleuen, testified by many notable examples out of historie.*

ALL other creatures haue a set time limited by Nature, both of going with their yong, and also of bringing it forth, each one according to their kinde: Man only is borne all times of the yeare, and there is no certaine time of his abode in the wombe after conception; for one commeth into the world at the seuen moneths end, another at the eighth, and so to the beginning of the ninth and tenth. But before the seuenth moneth there is no infant euer borne that liueth. And none are borne at seuen moneths end, vnlesse they were conceived either in the very change of the moone, or within a day of it vnder or ouer. An ordinary thing it is in Egypt for women to go with yong eight moneths, and then to be deliuered. And euen in Italy also now adates children so borne liue and do well: but this is against the common received opinion of all old writers. But there is no certainty to ground vpon in all these cases, for they alter diuers waies. Dame *Vestilia* (the widow of *C. Heronius*, wife afterward to *Pomponius*, and last of all married to *Orfitus*, all right worshipful citisens, and of most noble houses) had 4 children by her three husbands, to wit *Sempronius*, whom she bare at the seuenth moneth, *Swilius Rufus* at the eleuenth: and seuen moneths also she went with *Corbulo*, yet they liued all, and these two last came both to be Consuls: After all these sons, she bare a daughter, namely *Casoria* (wife to the Emperor *Caius Caligula*) at the eighth moneths end. They that are borne thus in this moneth haue much ado to liue, and are in great danger for forty dayes space: yea, and their mothers are very sickly, and subiect to fall into vntimely trauell all the fourth moneth and the eighth, and if they fall in labor and come before their time they die. *Massurius* writeth, that *L. Pappyrus* the Pretor or Lord chief Iustice, when a second heire in remainder made claim, and put in plea for his inheritance of the goods, made an award, and gaue iudgement against him, in the behalfe of an Infant the right heire, borne after the decease of his father; vpon this, That the mother came in and testified, how she was deliuered of that childe within thirteene moneths

moneths after the death of the Testator: the reason was, because there is no definite time certaine for women to go with childe.

CHAP. VI.

¶ *Of Conceptions: and signes distinguishing the sex in great bellied women before they are deliuered.*

IF ten dayes after a woman hath had the company of a man shee feele an extraordinary ache in the head, and perceiue giddinesse in the brain as if all things went round; finde a dazling and mistinesse in the eies, abhorring and loathing meat, and withall a turning and wambling in the stomacke; it is a signe that she is conceived, and beginneth to breed: if she goe with a boy better coloured will he be all the time, and deliuered with more ease, and by the 40 day she shall feele a kinde of motion and stirring in her wombe. But contrarie it falleth out in the breeding of a girle, she goeth more heauily with it, and findeth the burthen heauier, her legs and thighes about the thare will swell a little. And ninetie dayes it will be before she absolutely perceiue any mouing of the infant. But be it male or female shee breeds, they put her to much paine and griuance when their haire beginneth to bud forth, and euer at the full of the Moone: and euen the very infants after they are borne are most amisse and farthest out of frame about that time. And verily great care must be had of a woman with child all the time she goeth therewith, both in her gate, and in euery thing else that can be named: for if women feed vpon ouer-salt and poudered meat they wil bring forth a child without nailes: and if they hold nor their wind in their labor, longer it will be ere they be deliuered, and with more difficultie. Much yawning in the time of trauell is a deadly signe; like as to sneeze presently vpon conception threatneth abortion or a slip.

CHAP. VII.

¶ *Of the conception and generation of Man.*

I Am abashed much, and very sory to thinke and consider what a poore and ticklish beginning man hath, the proudest creature of all others, when the smel only of the snuffe of a candle put out is the cause oft times that a woman falls into vntimely trauel. And yet see, these great tyrans, and such as delight only in carnage and bloudshed haue no better original. Thou then that presumest vpon thy bodily strength, thou that standest so much vpon Fortunes fauours, and hast thy hands full of her bountifull gifts, taking thy self not to be a softer-child and nurceling of hers, but a naturall son borne of her owne body: thou I say that buisest thy head euermore, and settest thy minde vpon conquests and victories: thou that art vpon euerie good successe and pleasant gale of prosperity puffed vp with pride, and takest thy selfe for a god, neuer thinkest that thy life when it was hung vpon so single a thred, with so small a matter might haue miscarried. Nay more than that, euen at this day art thou in more danger than so, if thou chance to be but stung or bitten with the little tooth of a Serpent; or if but the verie kernell of a raisingo downe thy throat wrong, as it did with the poet *Anacreon*, which cost him his life. Or, as *Fabius* a Senator of Rome, and Lord chief Iustice besides, who in a draught of milk-fortuned to swallow a small haire, which strangled him. Well then, thinke better of this point, for he verily that will euermore set before his eies and remember the frailty of mans estate, shall liue in this world vprightly and in euen ballance, without inclining more to one side than vnto another.

CHAP. VIII.

¶ *Of those that be called Agrippæ.*

TO be borne with the feet forward is vnnaturall and vnkinde: and such as come in that order into the world the Latines were wont to name Agrippæ, as if a man should say, born hardly and with much ado. And in this maner *M. Agrippa* (as they say) came forth of his mothers wombe, the only man almost, known to haue brought any good fortune with him, and prospered in the world of all that euer were in that sort borne. And yet as happy as hee was,

and how well soeuer he chieued in some respects, he was much pained with the gout, and passed all his youth and many a day after in bloody wars, and in danger of a thousand deaths. And having escaped all these harmfull perils, vnfortunate he was in all his children, and especially in his two daughters the *Agrippina* both, who brought forth those wicked Imps so pernicious to the whole earth, namely *C. Caligula* and *Domitius Nero*, two Emperours, but two fiery flames to consume and waste all mankind. Moreouer, his infelicitie herein appeared, that hee liued so short a time, dying as he did a strong and lusty man, in the 51 yeare of his age, tormented and vexed with the adulteries of his owne wife, oppressed with the heauy and intolerable feruitude that he was in vnder his wiues father. In which regards it seems he paid full deare for the preface of his vntoward birth and natiuitie. Moreouer, *Agrippina* hath left in writing, That her son *Nero* also, late Emperor, who all the time of his reigne was a very enemy to all mankind, was borne with his feet forward. And in truth by the right order and course of Nature, a man is brought into the world with his head first, but is carried forth with his feet foremost.

CHAP. IX.

¶ Births cut out of the wombe.

BVt more fortunate are they a great deale whose birth costeth their mothers life, parting from them by means of incision: like as *Scipio Africanus* the former, who came into the world in that manner: and the first that euer was surnamed *Cesar*, was so called for the like cause. And hereof comes the fore-name also of the *Cæsares*. In like sort also was that *Manlius* borne who entred Carthage with an army.

CHAP. X.

¶ Who are Vopiscii.

THe Latines were wont to call him Vopiscus [or rather Opiscus] who being one of two twins, hapned to stay behinde in the wombe the full terme, when as the other miscarried by abortiue and vntimely birth. And in this case there chance right strange accidents, although they fall out very seldome.

CHAP. XI.

¶ Examples of many Infants at one birth.

Few creatures there be besides women, that seeke after the male, and can skill of their companie after they be once conceived with yong: one kind verily or two at the most there is knowne to conceiue double one vpon the other. We find in books written by Physitians, and in their records who haue studied such matters, and gathered obseruations, that there haue passed or bin cast away from a woman at one only slip, 12 distinct children: but when it falleth out that there is some pretty time betwixt two conceptions, both of them may carry their full time, and be borne with life, as appeared in *Hercules* and his brother *Iphiclus*; as also in that harlot who was deliuered of two infants, one like her owne husband, the other resembling the Adulterer: likewise in a Proconnesian bond-seruant, who was in one day gotten with childe by her master, and also by his Bailly or Procurator; and being afterwards deliuered of two children, they bewrayed plainly who were their fathers. Moreouer, there was another who went her full time, euen nine moneths for one childe, but was deliuered of another at the five moneths end. Furthermore in another, who hauing dropped downe one childe at the end of seuen moneths, by the end of the ninth came with two twinnes more.ouer and besides it is commonly seen, that children be not alwaies answerable to the parents in euery respect: for of perfect fathers and mothers who haue all their limmes, there are begotten children vnperfect and wanting some members: and contrariwise, parents there are maimed and defectiue in some part, who neuertheless beget children that are sound and entire, and with all that they should haue. It is seen also, that infants are at a default of those parts their parents misse: yea and they carry often times certaine markes, moles, blemishes, and skarres of their fathers and mothers,

As like as may be. Among the people called Dakes the children vsually beare the markes imprinted in their armes, of them from whom they descend, euen to the fourth generation.

CHAP. XII.

¶ Examples of many that haue been very like and resembled one another.

IN the race and family of the *Lepidi* it is said there were three of them (not successiue one after another, but out of order after some intermission) who had euery one of them at their birth a little pannicle or thin skin growing ouer their eye. Some haue bin known to resemble their grandfathers, and of two twins one hath bene like the father, the other the mother; but he that was borne a yere after hath bin so like his elder brother, as if he had bin one of the twins. Somewomen there be that bring all their children like to themselves; and others againe as like to their husbands: and some like neither the one nor the other. You shall haue Women bring all their daughters like to their fathers, and contrariwise their sonnes like to themselves. The same is notable, and yet vndoubted true, of one *Nicæus* a famous Wrestler of Constantinople, hauing to his mother a woman begotten in adulterie by an *Æthiopian*, and yet with white skin nothing different from other women of that countrey, was himselfe black, and resembled his grandfire the *Æthiopian* aboue sayd. Certes, the cogitations and discourses of the minde make much for these similitudes and resemblances whereof we speake, and so likewise many other accidents and occurrent objects are thought to be very strong and effectuall theria, whether they come in sight, hearing, and calling to remembrance, or imaginations only conceived and deeply apprehended in the very act of generation, or the instant of conception. The wandering cogitation also and quicke spirit either of father or mother, flying to and fro all on a sudden from one thing to another at the same time, is supposed to be one cause of this impression, that maketh either the foresaid vniforme likenesse, or confusion and varietie. And hereupon it commeth, and no maruell it is, that men are more vnlike one another, than other Creatures: for the nimble motions of the spirit, the quicke thoughts, the agilitie of the minde, the varietie of discourse in our wits, imprinteth diuers formes, and many marks of sundry cogitations: whereas the imaginative facultie of other liuing creatures is immoueable, & alwaies continueth in one: in all it is alike, and the same still in euery one, which causeth them alwaies to engender like to themselves, each one in their seuerall kindes. *Artenon* a mean man amongst the Commons, was so like in all points to *Antiochus* King of Syria, that *Laodicea* the Queen, after that *Antiochus* her husband was killed, serued her owne turne by the said *Artenon*, and made him play the part of *Antiochus*, vntill she had by his meanes, as in the Kings person, recommended whom she would, and made ouer the kingdome and crown in succession and reuersion to whom she thought good. *Vibius* a poore commoner of Rome, and *Publicius* one newly of a bondslau made a free-man, were both of them so like vnto *Pompey* the Great, that hardly the one could be discerned from the other, so liuely did they represent that good visage of his so full of honestie, so fully expressed they and resembled the singular maiestie of that countenance which appeared in *Pompeius* his forehead. The like cause it was that gaue his father also the surname of *Menogenes*, his Cooke, albeit he was surnamed already *Strabo*, for his squint eyes: but hee would needs beare the name of a defect and infirmite euen in his bond-seruant, for the loue he had vnto him by reason of his likenesse. Sowas one of the *Scipio's* also surnamed *Serapius* vpon the like occasion, after the name of one *Serapia*, who was but a base slau of his, and no better than his swine heard, or dealer in buying and selling of swine. Another *Scipio* after him of the same house came to be surnamed *Salutio*, because a certaine jester of that name was like vnto him. After the same manner one *Spinter*, a player of the second place or part, and *Pamphilus* another player of the third part, or in the third place, gaue their names to *Lentulus* and *Metellus*, who both were Consuls together in one yeare, for that they resembled them so truly. And certes mee thinks this fell out very vnwardly, and was but a ridiculous pageant, and a very vnseemly shew vpon a stage, to see both Consuls liuely represented there at once in the persons of these two players. Contrariwise, *Rubrius* the stage player was surnamed *Plancus*, because he was so like to *Plancus* the Orator. Againe, *Burbuleius* and *Menogenes*, both players of Enterludes, resembled *Curio* the father or the elder, and *Messala Censorius*, for all he had been Censor

that the one could not shift and avoid the surname of *Burbuleius*, and the other of *Monogenes*. There was in Sicily a certaine fisherman who resembled in all parts *Suria* the Pro-consull, not only in visage and feature of the face, but also in mowing with his mouth when hee spake, in drawing his tongue short, and in his huddle and thicke speech. *Cassius Severus* that famous orator was reproched for being so like vnto *Mirmillo* a drouer or keeper of kine and oxen. *Toranius* a merchant slaue-seller, sold vnto *M. Antonius* (now one of the two great Triumvirs) two most beautiful and sweet faced boyes, for twins, so like were they one to the other, albeit the one was borne in Asia, and the other beyond the Alps. But when *Antony* afterwards came to know the same, and that this fraud and couenage was bewraied and detected by the language & speech of the boyes, he fell into a furious fit of choler, and all to berated the foresaid *Toranius*. And when among other challenges he charged him with the high price he made him pay (for they cost him two hundred Sesterces, as for twins, when they were none such) the wily merchant being his craftmaster answered, That it was the cause why he held them so deare, and told them at so deare a rate: for (quoth he) it is no maruell at all that two brethren twins that lay both together in one belly do resemble one the other; but that there should be any found borne as these were in diuers countries, so like in all respects as they, he held it for a most rare and wonderfull thing. This answer of his was deliuered in so good time, and so fitly to the purpose, that *Antonie* the great man, who neuer was well but when he outlawed citisens of Rome, and did confiscat their goods, he I say that erewhile was all enraged and set vpon reuiling and reprochfull termes, was not only appeased, but also contented so with his bargaine, that he prised those two boies as much as any thing else in all his wealth.

CHAP. XIII.

¶ The cause and manner of generation.

Some bodies there be by a secret of nature so disagreeing, that they are vnfit for generation onewith another. And yet as barren as they be so coupled together, fruitfull they are enough being ioyned with others. Such were *Augustus* the Emperor and his wife *Linia*. In like manner some men there be as well as women, that can skill of getting and breeding none but daughters: and others there be againe that are good at none but sonnes: and many times it falleth out that folke haue sonnes and daughters both, but they by turnes, this yeare a son, the next yeare a daughter, in order. So [*Cornelia*] the mother of the *Gracchi*, who for twelue childbeds kept this course duly: and *Agrippina*, the wife of *Casir Germanicus*, for nine, euer changing from the male to the female. Some women are barren all their youth; and others again beare but once in their whole life. Some neuer go their full time with their children; and such women, if peradventure by helpe of physicke or other good means, and choice keeping, they overcome this infirmities, bring daughters ordinarily and no other. The Emperor *Augustus* among other singularities that he had by himselfe during his life, saw ere he died the nephew of his neece, that is to say his progenie to the fourth degree of lineall discent: and that was *M. Scyllanus*, who hapned to be borne the same yeare that he departed out of this world. He hauing been Consull, and afterward Lord Gouvernor of Asia, was poisoned by prince *Nero*, to the end that he might thereby attaine to the empire. *Qu. Metellus Macedonius* left behind him six children, and by them eleuen nephewes: but daughters in law and sons in law, and of all such as called him father, seuer. In the Chronicles of *Augustus Caesars* acts for his time, we finde vpon record, that in his twelfth Consulship, when *L. Sylla* was his companion and colleague in gouernment, vpon the eleventh day of Aprill, *C. Crispinus Helarus* a gentleman of Fesulæ, came with solemne pompe into the Capitoll, attended vpon with his nine children, seuen sons and two daughters; with 27 Nephewes the sonnes of his children, and 29 nephewes more, once remoued, who were his sons nephewes, and twelue Nieces besides that were his childrens daughters, and with all these solemnly sacrificed.

CHAP.

CHAP. XIII.

¶ Of the same matter more at large.

A Woman commonly is past childe-bearing after 50 yeares of her age. And for the most part their monthly termes stay at forty. As for men, it is cleare and wel knowne, that king *Maßinissa* when he was aboute 86 yeres old, begat a son whom he called *Metymathmas*: & *Cato Censorius* that famous Censor begat another vpon the daughter of *Salonius* his vassal, when hee was past 80 yeares of age. And hereof it commeth, that the race which came of his other children were surnamed *Liciniani*, but the off-spring of this last sonne, *Salonius*, from whom *Cato Vicensis* (who slew himselfe at Vtica) is lineally descended. Moreouer, it is not long since, that dame *Cornelia* of the house and lineage of the *Scipio's*, bare vnto *Lu. Saturninus* her husband (who died whiles he was Prouost of the city of Rome) a son named *Volusus Saturninus*, and who afterwards liued to be Consull, who was begotten when his father was 62 yeares old with the better. To conclude, there haue beene amongst meaner persons, very many knowne to haue gotten children after fourscore and foue.

CHAP. XV.

¶ Of Womens monethly sicknesse.

Of all liuing creatures a woman hath a flux of blood every moneth: and hereupon it is, that in her wombe onely there are found a false conception called *Mola*, i. a Moone-calf, that is to say, a lump of flesh without shape, without life, and so hard withal, that vneth a knife will enter and pierce it either with edge or point. Howbeit, a kinde of mouing it hath, and staiteth the course of her moneths: and sometime after the manner of a childe indeed, it costeth the woman her life: otherwhiles it waxeth in her belly as the groweth, and ageth with her; now and then also it slippeth and falleth from her with a laske and loosenesse of the guts. Such a thing breeds likewise in the bellies of men, vpon the hardnesse of liuer or spleen, which the Physitions call *Scirrhus*, i. an hard wedge and cake vnder their short-ribs. And such an one had *Oppius Cato* a nobleman of Rome, late Pretour. But to come againe to women, hardly can there be found a thing more monstrous than is that flux & course of theirs. For if during the time of their sickness they happen to approch or go ouer a vessell of wine, be it neuer so new, it wil presently soure if they touch any standing corne in the field, it wil wither and come to no good. Also, let them in this estate handle graffes, they will die vpon it: the herbes and young buds in a garden if they do but passe by, will catch a blast, and burne away to nothing. Sit they vpon or vnder trees whiles they are in this case, the fruit which hangeth vpon them will fall. Do they but see themselves in a looking glasse, the cleare brightnesse thereof turneth into dimnesse, vpon their very sight. Look they vpon a sword, knife, or any edged tooles, be it neuer so bright, it waxeth dusky, so doth also the liuely hue of yvorie. The very bees in the hieue die. Yron & Steele presently take rust, yea, and brasse likewise, with a filthy, strong, and poisoned stink, if they lay but hand thereupon. If dogs chance to taste of womens fleures, they run mad therewith; and if they bite any thing afterwards, they leaue behinde them such a venome, that the wounds are incurable: nay the very clammy slime Bitumen, which at certaine times of the yere floreth and swimmeth vpon the lake of Sodom, called Asphaltites in Iury, which otherwife of the owne nature is pliable enough, soft and gentle, and ready to follow what way a man would haue it, cannot be parted and diuided asunder (for by reason of the viscositie, it cleaueth and sticketh like glue, and hangeth all together, pluck as much as a man will at it) but only by a thred that is stained with this venomous blood: euen the silly Pismires (the least creatures of all others) hath a perceiuaunce & fence of this poison, as they say; for they cast aside & will no more come to that corn, which they haue found by tast to be infected with this poison. This malady, so venomous and hurtful as it is, followeth a woman still euery 30 daies, and at 3 moneths end, if it stay so long, it commeth in great abundance. And as there be some women that haue it oftner than once a month, so there are others again that neuer see ought of it. But such lightly are barren, and neuer bring children. For in very deed, it is the materiall substance of generation: and the mans seed serueth in stead of a runnet to gather it round into a curd: which afterwards in processe of time

time quickneth and grows to the form of a body, which is the cause that if women with childe G haue this flux of the moneths, their children are not long liued, or else they proue feeble, sickly and full of filthie humours, as *Nigidius* writeth.

CHAP. XVI.

¶ In like manner, of births: and infants in the mothers wombe.

THE same *Nigidius* is of opinion, that a womans milke, nource to her owne child & giuing it sucke, will not corrupt and be naught for the babe, if she conceiue againe by the same man to whom she brought the former childe. Also it is held, that in the beginning & end of the foresaid menstruall fleures, a woman is very apt to conceiue. Moreouer, it is commonly receiued for an infallible argument in women, that they are fruitfull and with childe, if when they annoint their eies with their owne spittle as with a medicine, the same appeare infected and to change the colour thereupon. Furthermore, doubtlesse it is, that children breed their fore teeth in the seventh moneth after they are borne, and first those in the vpper chaw, for the most part: likewise that they shed the same teeth about the seventh yere of their age, & others come vp new in the place. Certaine it is also, that some children are borne into the world with teeth, as *M. Curius*, who thereupon was surnamed *Dentatus*, and *Cn. Papyrius Carbo*, both of them very great men and right honourable personages. In women the same was counted but an vnlucky thing, & presaged some misfortune, especially in the daies of the KK. regiment in Rome: for when *Valeria* was borne toothed, the wizards and Soothsayers being consulted thereabout, answered out of their learning by way of Prophecie, That look into what citie she was caried to nource, she should be the cause of the ruine and subuersion thereof; whereupon had away shee was and conueied to *Suessa Pometia*, a city at that time most flourishing in wealth and riches: and it proved most true in the end, for that city was vtterly destroyed. *Cornelia* the mother of the *Gracchi* is sufficient to proue by her own example, that women are neuer borne for good whose genitall parts for procreation are growne together, and yeeld no entrance. Some children are borne with an entire whole bone that taketh vp all the gum, instead of a row of distinct teeth, as a son of *Prusias* king of the Bythinians, who had such a bone in his vpper chaw. This is to be obserued about teeth, that they onely check the fire and burn not to ashes with other parts of the body: and yet as inuincible as they are and able to resist the violence of the flame, they rot and become hollow with a little catarrhe or waterish rheume that droppeth and distilleth vpon them: white they may be made, with certaine mixtures and medicines called *Dentifices*. Some weare their teeth to the very stumps onely with vse of chawing; others againe loose them first out of their head; they serue not onely to grind our meat for our daily food and nourishment, but necessary also they be for the framing of our speech. The fore-teeth stand in good stead to rule and moderate the voice by a certaine consent and tuneable accord, answering as it were to the stroke of the tongue: and according to that row and ranke of theirs wherein they are set, as they are broader or narrower, greater or smaller, they yeeld a distinction and varietie in our words, cutting and hewing them thicke and short, framing them pleasant, plaine, and ready, drawing them out at length, or smuddering and drowning them in the end: but when they bee onely false out of the head, man is bereaued of all means of good vtterance and explanation of his words. Moreouer, there are some presages of good or bad fortune, gathered by the teeth: men ordinarily haue giuen them by nature 32 in all, except the nation of the *Turduli*. They that haue about this number, may make account (as it is thought) to liue the longer. As for women, they haue not so many: they that haue on the right side in the vpper iaw two eie-teeth, which the Latines call *Dogs-teeth*, may promise themselves the flattering fauours of Fortune, as it is well seene in *Agrippina* the mother of *Domitius Nero*: but contrariwise, the same teeth double in the left side aboue, is a signe of euill lucke. It is not the custome in any countrey to burne in a funerall fire the dead corps of any infant before his teeth be come vp, but hereof will we write more at large in the Anatomie of man, when wee shall discourse purposely of euerie member and part of the body. *Zoroastres* was the onely man that euer wee could heare of, who laughed the same day that he was borne: his brain did so evidently pant and beat, that it would beare vp their hands that laid them vpon his head: a most certain presage & fore-token of that great learning that afterward, he attained vnto. This also is held for certain and resolued vpon that a man at three yeares of age, is come to one moitie of his growth and height. As also this

is

A is obserued for an vndoubted truth, that generally all men come short of the full stature in time past, and decrease stil euery day more than other: and seldome shall you see the son taller than his father, for the ardent heat of the elementarie fire (whereunto the world enclineth already now toward the later end, as somtimes it stood much vpon the waterie element) deuoureth and consumeth that plentiful humor and moisture of naturall feed, that engendreth all things: and this appeareth more evidently by these examples following. In *Crete*, it chanced that an hill claued asunder in an earth-quake, and in the chink thereof was found a body standing, 46 cubits high; some say it was the body of *Orion*; others, of *Otus*. We find in chronicles & records of good credit, that the body of *Orestes* being taken vp, by direction from the Oracles, was seven cubits long. And verily that great and famous poet *Homer*, who liued almost 1000 yeres ago, complained and gaue not ouer, That mens bodies were lesse of stature euen then, than in old time. The B Annales set not downe the stature and bignesse of *Nevius Pollio*; but that he was a mighty gyant, appeareth by this that is written of him, namely, that it was taken for a wonderful strange thing, that in a great rout & presse of people that came running together vpon him, he had like to haue bin killed. The tallest man that hath bin seen in our age, was one named *Gabbara*, who in the daies of prince *Claudius* late Emperor, was brought out of Arabia; nine foot high was hee, and as many inches. There were in the time of *Augustus Caesar* 2 others, named * *Pusio* and *Secundilla*, higher than *Gabbara* by halfe a foot, whose bodies were preserued and kept for a wonder in a charnell house or sepulchre within the gardens of the *Salustians*. Whiles the same *Augustus* fate as president, his niece *Julia* had a little dwarfish fellow not aboue 2 foot and a hand bredth high, called *Conopas*, whom she set great store by and made much of: as also another the dwarfe named *Andromeda*, who sometime had been the slaue of *Julia* the princeesse, and by her made free. C *M. Varro* reporteth, that *Manius Maximus*, and *M. Tullius*, were but two cubits high, & yet they gentlemen and knights of Rome: and in truth we our selues haue seen their bodies how they lie embalmed and chested, which testifieth no lesse. It is well knowne that there be some that naturally are neuer but a foot and a halfe high; others again somewhat longer, and to this heighth they came in three yeres, which is the full course of their age, and then they die. Wee reade moreouer in the Chronicles, that in *Salamis* one *Eutimenes* had a son, who in three yeres grew to be three cubits high, but he was in his gate slow and heauy, and in his wit as dull and blockish; howbeit in his time vndergrowne he was, and his voice changed to be great, and at three D yeares end died suddenly of a generall crampe or contraction of all the parts of his body. It is not long since I saw my selfe the like in all respects (sauius that vndergoing afore said) in a son of one *Cornelius Tacitus*, a Roman knight, and a procurator or general receiuer and Treasurer for the State in *Gaule Belgique*; such the Greeks call *Exsanthos*, i. *Ectrapelos*; wee in Latine haue no name for them.

CHAP. XVI.

¶ Certaine notable observations in bodies of men and women.

WE see tried by experience, that take measure of a man from the sole of the foot vp to the crowne of the head, so far it is between the ends of his two middle and longest fingers, when he stretcheth out his armes and hands to the full. As also, that some E men and women be stronger of the right side than of the left: others againe that be as strong of one as the other, and there be, that are altogether left handed, and best with that hand; but that is seldome or neuer seen in women. Moreouer, men weigh heauier than women; and in euerie kind of creature, dead bodies be more heauy than the quicke: and the same parties sleeping weigh more than waking. Finally, obserued it is, that the dead corps of a man floteth on the water with the face vpward; but contrariwise women swim groueling, as if Nature had provided to saue their honesty and couer their shame, euen when they are dead.

CHAP. XVIII.

¶ Examples of diuers extraordinarie cases in mans body.

WE haue heard, that some mens bones are folliid and massie, and so do liue without any marrow in them: you may know them by these signes, they neuer feele thirst, nor put forth any sweat; and yet we know that a man may conquer and master his thirst if hee

list:

* Ten foot and an halfe.

* Such an one as little John, for so the nick-name signifieth.

lift: for so a gentleman of Rome one *Iulius Viator*, descended from the race of the Vocontians our allies, being falne into a kind of dropfie between the skin and the flesh during his minority and nonage, and forbidden by the Physicians to drink, so accustomed himselfe to obierue their direction, that naturally he could abide it: in so much, that all his old age euen to his dying day he forbore his drink. Others also haue bin able to command and ouer-rule their nature in many cases, and breake themselves of diuers things.

CHAP. XIX.

¶ *Strange natures and properties of diuers persons.*

IT is said, that *Crassus* (grandfather to that *Crassus* who was slaine in Parthia) was neuer known to laugh all his life time, and thereupon was called *Agelastus*; and contrariwise, many haue bin found that neuer wept. Also that sage and renowned wife man *Socrates*, was seene alwaies to carry one and the selfe same countenance, neuer more merry and cheerefull nor more solemne and vnquiet, at one time than at another. But this obstinate constancy and firm cariage of the mind, turneth now and then in the end into a certain rigour and austerity of nature, so hard and inflexible that it cannot be ruled, and in very truth despoileth men of all affections; and such are called of the Greekes, *Apathes*, who had the experience of many such: and (that which is a maruellous matter) those especially that were the great pillars of philosophy and deep learned Clerks, namely *Diogenes* the Cinicke, *Pyrrho*, *Heraclitus* and *Timo*; and as for him he was so far gone in his humor, that he seemed professedly to hate all mankind. But these were examples of a corrupt, peruerse, & froward nature. As for other things, there be sundry notable obseruations in many, as in *Antonia* the wife of *Drusus*, who as it was well knowne, neuer spit: in *Pomponius* the poet, one that had sometimes bin Confull, who neuer belched. But as for such as naturally haue their bones not hollow, but whole and solid, they be very rare and seldom seene, and called they are in Latine *Cornei*, hard as horne.

CHAP. XX.

¶ *Of bodily strength and swiftnesse.*

Varro in his treatise of prodigious and extraordinary strength, maketh report of one *Tritannus*, a man that of body was but little and lean withall, howbeit of incomparable strength, much renowned in the fence schoole, and namely, in handling the Samnites weapons, wearing their manner of armor, and performing their feats and masteries of great name. He maketh mention also of a sonne of his, a souldier, that serued vnder *Pompeius* the Great, who had all ouer his body, yea and throughout his armes and hands, some sinewes running streight out in length, others crossing ouerthwart lattise-wise; and he saith moreover of him, that when an enemy out of the camp gaue him defiance and challenged him to a combat, he would neither put on defensue harnesse, ne yet arme his right hand with offensue weapon; but with naked hand made meanes to foile and overcome him, and in the end when hee had caught hold of him, brought him away perforce into his own camp with one finger. *Iunius Valens* a capitaine, pensioner or centurion of the gard-souldiers about *Augustus Caesar*, was wont alone to beare vp a charriot laden with certain hogsheds or a butt of wine, vntill it was discharged thereof, & the wine drawne out: also his manner was with one hand to stay a coach against all the force of the horses struuing and straining to the contrary; and to perform other wonderfull masteries, which are to be seen engrauen vpon his tombe; and therefore (qd. *Varro*) being called *Hercules Rusticellus*, he tooke vp his mule vpon his back and carried him away. *Fusus Saluius* hauing two hundred pound weights at his feet, and as many in his hands, and twise as much vpon his shoulders, went withall vp a paire of staires or a ladder. My selfe haue seene one named *Ashanatus*, do wonderfull strange matters in the open shew and face of the world, namely, to walke his stations vpon the stage with a cuirace of lead weighing 500 pound, boored besides with a pair of buskins or greiues about his legges that came to as much in weight. As for *Milo* the great wrestler of Croton, when he stood firm vpon his feet, there was not a man could make him stir one foot; if he held a pomegranat fast within his hand, no man was able to stretch a finger of his and force it out at length. It was counted a great matter, that *Philippides* ran 1140 stadia, to wit,

wit, from Athens to Lacedæmon in two daies, vntill *Lanisis* a courtier of Lacedæmon, and *Philonides* footman to *Alexander* the great, ran between Sicyone and Olis in one day, 1200 stadia. But now verily at this day we see some in the grand cirque, able to indure in one day the running of 160 miles. And but a while agoe we are not ignorant, that when *Foncius* & *Vipsannus* were Consuls, a yong boy but 9 yeres old, between noon and euening ran 75 miles. And verily a man may wonder the more at this matter, and come to the full conceit thereof, if he do but consider, that it was counted an exceeding great iourney that *Tiberius Nero* made with three chariots (shifting from one to the other fresh) in a day and a night, riding post haste vnto his brother *Drusus* then lying sicke in Germany, and all that was but 200 miles.

CHAP. XXI.

¶ *Examples of good Eie-sight.*

WE find in histories as incredible examples as any be, as touching quicknesse of Eie-sight. *Cicero* hath recorded, that the whole Poeme of *Homer* called *Ilias*, was written in a piece of parchment, which was able to be couched within a nut shel. The same writer maketh mention of one that could see and discern out-right 135 miles. And *M. Varro* nameth the man, and saith he was called *Strabo*; who affirmeth thus much moreouer of him, that during the Carthaginian war he was wont to stand and watch vpon *Lilybæum*, a cape in Sicily, to discouer the enemies fleet looting out of the haven of Carthage, and was able to tel the very just number of the ships. *Callicrates* vsed to make Pismires and other such like little creatures, out of yvorie so artificially, that other men could not discern the parts of their body one from another. There was one *Myrmecides*, excellent in that kinde of workmanship: who of the same matter wrought a chariot with foure wheelles and as many feedes, in so little roome, that a silly flie might couer all with her wings. Also he made a ship with all the tackling to it, no bigger than a little bee might hide it with her wings.

CHAP. XXII.

¶ *Of Hearing.*

AS for hearing, there is one example wonderfull. For the bruit of that battell, whereupon *Sybaris* was forced & sacked, was heard the very same day as far as *Olympia* [in Greece.] As touching the news of the Cimbrians defeature, as also the report and tidings of the victorie ouer the Persians, made by the Roman Castores, the same day that it was atchieued, were held for diuine reuelations rather than humane reports, and the knowledge thereof came more by way of vision than otherwise.

CHAP. XXIII.

¶ *Examples of Patience.*

MANY are the calamities of this life, incident to mankind, which haue afforded infinite trials of mens patience, in suffering paines in their body. Among others, for women, the example of *Leana* the courtisan, is most rare and singular, who for all the dolorous tortures that could be deuised, would neuer bewray *Harmodius* and *Aristogiton*, who slew the tyrannous king. And for men, *Anaxarchus* did the like, who being for such a cause examined vpon the racke, in the midst of his torments bit off his own tongue with his teeth, the only means whereby he might haply reueale and disclose the matter in question, and spit it in the face of the tyrant that put him to his torture.

CHAP. XXIIII.

¶ *Examples of Memorie.*

AS touching memorie, the greatest gift of Nature, and most necessary of all others for this life, hard it is to iudge and say who of all others deserued the chiefe honor therein: considering how many men haue excelled, and woon much glory in that behalfe. King *Cyrus*

was able to call euery souldier that he had through his whole army by his owne name. *L. Scipio* could do the like by all the citizens of Rome. Semblably, *Cineas*, Embassador of king *Pyrrhus*, the very next day that he came to Rome, both knew and also saluted by name all the Senate, & the whole degrees of Gentlemen and Caualerie in the citie. *Mithridates* the king, reigned ouer two and twentie nations of diuers languages, and in so many tongues gaue lawes and ministred justice vnto them, without truchman: and when he was to make speech vnto them in publicke assembly respectfully to euery nation, he did performe it in their own tongue without interpreter. One *Charmidas* or *Charmadas*, a Grecian, was of so singular a memory, that he was able to deliuer by heart the contents word for word of all the books that a man would call for out of any librarie, as if he read the same presently within book. At length the practise hereof was reduced into an art of Memory: deuised and inuented first by *Simonides Melicus*, and afterwards brought to perfection and consummate by *Metodorus Sepsius*, by which a man might learne to rehearse againe the same words of any discourse whatsoeuer after once hearing: and yet there is not a thing in man so fraile and brittle againe as it, whether it be occasioned by disease, by casual injuries or occurrents, or by feare, through which it faileth sometime in part, and otherwhiles decaith generally, and is clean lost. One with the stroke of a stone, fell presently to forget his letters onely, and could reade no more; otherwise his memorie serued him well enough. Another with a fall from the roofof a very high house, lost the remembrance of his owne mother, his next kinsfolks, friends, and neighbors. Another in a sickness of his, forgot his own seruants about him: and *Messala Corvinus* the great Orator, vpon the like occasion, forgot his own proper name. So fickle and slipperie is mans memorie: that oftentimes it assaieth and goeth about to seeke it selfe, euen whiles a mans body is otherwise quiet and in health. But let sleep creepe at any time vpon vs, it seemeth to be vanquished, so as our poore spirit wandreth vp and downe to seeke where it is, and to recouer it againe.

CHAP. XXV.

¶ The praise of C. Iulius Caesar.

For vigor and quicknesse of spirit, I take it, that *C. Caesar* Dictatour, went beyond all men besides. I speake not now of his vertue and constancie, neither of his high reach and deep wit, whereby he apprehended the knowledge of all things vnder the cope of heauen; but of that agilitie of minde, that prompt and ready conceit of his, as nimble and actiue as the verie fire. I haue heard it reported of him, that he was wont to write, to reade, to indite letters, and withall to giue audience to suiters & heare their causes all at one instant. And being employed, as you know he was, in so great and important affairs, he ordinarily indited letters to foure secretaries or clerkes at once: and when he was free from other greater businesse, he would otherwise finde seuen of them work at one time. The same man in his daies fought 50 set battels with banners displayed against his enemies: in which point, he alone out-went *M. Marcellus*, who was seene 40 times saue one in the field. Besides the carnage of citizens that hee made in the ciuill wars when he obtained victory, he put to the sword 1192000 of his enemies, in one battell or other. And certes for mine owne part, I hold this for no speciall glory and commendation of his, considering so great iniurie done to mankind by this effusion of blood, which in some part he hath confessed himselfe, in that he hath forborne to set downe the ouerthrowes & blood-shed of his aduersaries (fellow citizens) during the ciuill wars. Yet *Pompey* the great deserues honour more iustly for scouring the seas, and taking from the rovers 846 saile of ships. But to return againe to *Cesar*, ouer and above the qualities of worth before rehearsed, an especiall property of his owne he had, for clemency and mercy, wherein he so far forth surmounted all other men, that hee repented therof in the end. As for his magnanimity, it was incomparable, and he left such a president behind him, as I forbid all men to match or second it. For to speake of his sumptuosities, of his largesses, of the magnificent shewes exhibited to the people, the exceeding cost & charges therein bestowed, with all the stately furniture thereto belonging, were a point of him that fauored such lauish expence and superfluities. But herein appeared his true hautinesse of mind indeed, and that vnmatchable spirit of his, that when vpon the battell at *Pharsalia*, as wel the co-fers & caskets with letters & other writings of *Pompey*, as also those of *Scipio's* before *Thapsus*, came into his hands, he was most true to them, and burnt all without reading one scrip or scrol.

CHAP.

CHAP. XXVI.

¶ The commendation of Pompey the great.

As concerning all the titles and victorious triumphs of *Pompey* the great, wherein hee was equall in renowne and glory, not onely to the acts of *Alexander* the great, but also of *Heracles* in a manner, and god *Bacchus*: if I should make mention thereof in this place, it would redound not to the honour onely of that one man, but also to the grandeur and Maiestie of the Roman empire. In the first place then, after he had recovered Sicily, and reduced it vnder obedience (where his first rising was, and where hee began to shew himselfe in the quarrell of the Common weale, and to side with *Sylla*) hauing also conquered and subdued *Atricke*, and raunged it vnder the obedience of Rome, where he acquired the surname of *Magnus*, by reason of the great booty and pillage which he brought from thence; being no higher of birth and calling, than a Roman gentleman or man of armes, entred with triumphant chariot into Rome: a thing that was neuer seene before in a man of that place and qualitie. Immediately after this, he made a voiage into the West, and hauing brought vnder obedience of the Romans 876 great townes, which he forced by assault betwene the Alpes and the marches of Spaine, he erected trophies and triumphant columnes vpon the mountain *Pyrenæus*, with the title and inscription of these victorious exploits; and neuer made one word of his victorie ouer *Sertorius*, so braue a mind he carried with him. And after the ciuill troubles and broiles appeased & quenched (which drew after them all forreine wars) he triumphed againe the second time, being as yet but a knight of Rome: so oftentimes a generall of command & conduct; before he euer serued as soldier in the field. These famous deeds atchieued, sent out he was in another expedition, to scoure & cleere all the seas, and so forward into the East parts. From whence he returned with more titles still of honor to his country, after the manner of those that winne victories at the solemne festiuall * Games; for as the victors vse not themselves to accept the chaplets and guirlands in their own names, but to be crowned therewith in the behalf of their native countries; euen so, *Pompeius*, in that temple which he caused to be built of the bootie and pillage woon from the enemies, and dedicated to * *Minerva*, entituled the citie with the whole honour, and attributed all to them in an inscription or table engrauen in this manner: *Pompeius the Great, Lord General, hauing finished the warres which continued thirtie yeares, during which he had discomfited, put to flight, slaine, or receiued to mercie vpon submission 2183000 men: sunke or taken 846 saile, woon and brought to his deuotion, of cities, townes and castles, to the number of 1538; subdued and put vnder subiection all lands and Nations, betwene the lake Maotis and the red sea, hath dedicated of right and good desert this temple to Minerva.* This is the briebe and summarie of his seruice in the East. As for the triumph, wherein he rode the third day before the Calends of October, in the yeare wherein *M. Messala* and *M. Piso* were Consuls, the tenure and title ran in this form: Whereas *Cn. Pompeius* hath cleared all the sea coasts from Pyrats and rovers, and thereby recovered vnto the people of Rome the lordship and soueraignetic of the seas; and withall subdued Pontus, Armenia, Paphlagonia, Cappadocia, Cilicia, Syria, the Scythians, Iudæa, and the Albanois: the Island Creta, and the Bastarnians, hath triumphed ouer them all, as also for the vanquishing of the 2 kings *Mithridates* and *Tigranes*. But the greatest glorie of all glories in him was this (as himselfe deliuered openly in a full assembly, at what time as he discoursed of his owne exploits) That whereas Asia when he receiued it, was the vtmost frontier prouince and limit of the Roman Empire, hee left the same in the very heart & mids thereof, and so deliuered it vp to his countrey. Now if a man would set *Cesar* on the other side against him, & likewise rehearse his noble acts, who indeed of the two seemed greater in the sight of the world, he had need verily to fetch a circuit about the world, and comprehend the whole globe thereof, which were an infinit piece of work, and in all reason impossible.

CHAP. XXVII.

¶ The praise of Cato, the first of that name.

In sundry other kindes of vertues many men haue diuersly excelled. But *Cato*, the first of the *Porcian* house, was thought to be the only person who was able to perform three things in the highest degree that are most commendable in a man. For first and formost he was a singular good

Olympia Ne-mea Pythia, Isthmia.

* Or Victorie.

Charneades, according to Cicero and Quintilian.

good Oratour: secondly, a most braue captaine and renowned commander in the field: and last of all, a right worthy Senatour and approued counsellor. And yet in my conceit, all these excellent parts seeme to haue shined more bright (although he came after the other) in *Scipio Aemilianus*. To say nothing of this blessed gift besides, that he was not hated and spighted of so many men, as *Cato* was. But if you will seeke for one especiall thing in *Cato* by himselfe, this is reported of him, That he was iudicially called to his answer 44 times, and neuer was there man accused oftner than he, yet went he euer cleare away and was acquit.

CHAP. XXVIII.

¶ Of Valour and Fortitude.

AN endlessse peece of worke it were to know and set downe who bare the prize for valiancy, and namely if we admit the fabulous tales of poets. As for the poet *Ennius*, he had in greatest admiration, *T. Caelius Teneor*, and especially his brother: and in regard of those two, he compiled the first booke of his Annales to the rest. But *L. Sicius Dentatus*, a Tribune of the Commons, not long after the banishment of the kings, when *Sp. Tarpeius* and *A. Asterius* were Consuls, by most voices surpasses in this kind, if it be true that a number of men report of him: namely, that he serued in 120 foughten fields: 8 times maintained combat with his enemy, gaining defiance, and euermore got the vpper hand: carrying before him the glorious markes of 45 skarres receiued by wounds, and neuer a one in the backe parts of his body. Moreover, he woon the spoile of 34 feuerall enemies: and had giuen him of his captains, for his prowesse and good seruice, 18 headlesse speares, 25 caparisons and furnitures of great horses, 83 chains, 160 bracelets for to adorne his arms: 26 crowns, or triumphant chaplets, whereof 14 were ciuicke, for rescuing of Roman citizens in jeopardy of death, 8 of beaten gold, 3 other murall, for mounting first ouer the enemies wall: and last of all, one obsidionall, for enforcing the enemy to leue and breake vp his siege and depart; also with a stipend or pension. fee out of the Exchequer & chamber of the city; and lastly, the prise or ransom of ten prisoners, with 20 oxen besides to make vp the reward; and in this glorious pompe and shew he followed nine captain Generals going before him, who by his means triumphed all. Ouer and besides (which I suppose was the worthiest act that euer he did) he accused in open court before the body of the people, one commander and great captaine, named *T. Romulus* (notwithstanding he had bin a Consul) and conuicted him for his ill management and conduct of the wars. As for *Manlius Capitolinus*, he was as many honourable testimonies of valour, but that he lost them all againe, with that vnhappy end of his life that he made. Before he was full 17 yeres of age, hee had gained already two complete spoiles of his enemies. He was the first Roman knight or man of armes, that was honored with a murall crowne of gold for scaling ouer the wall in an assault; with six ciuicke chaplets for sauing the life of citizens six times out of the enemies hands. Moreover, he receiued 37 gifts of the people for his good seruice, and carried the skarres in the fore-part of his body of 33 wounds. He rescued *P. Semilius*, Generall of the Roman Cauallerie, & in the rescue was himselfe wounded for his labor, in shoulder and thigh both. Aboue all other hardy acts, he alone guarded and defended the Capitoll, and thereby the whole State of Rome, against the Gauls: a braue piece of seruice, but that he marred all againe in aspiring to be king ouer the same. In these aboue rehearsed examples, certes vertue hath carried a great stroke, but yet fortune hath been the mightier, and preuailed more in the end. And in my iudgement verily, none may right & iustly prefer any man before *M. Sergius*, albeit *Catiline* his nephewes son discredited that name of his, & derogated much from the honor of his house. The second time that he went into the field and serued, his had was to lose his right hand: and in two other seruices hee was wounded no fewer than 23 times: by meanes whereof hee had little vse of either hand, and his feet stood him in no great stead. Howbeit, thus maimed and disabled as hee was for to be a souldiour, hee went many a time after to the warres, attended with one slaue onely, and performed his deuoir. Twise was he taken prisoner by *Annibal* (for he dealt not I may tell you with ordinary enemies) and twise brake he prison and made escape, notwithstanding, that for twentie moneths space he was euery day ordinarily kept bound with chaines and fetters. Four times fought hee with his left hand onely, vntill two horses one after another, were killed vnder him. Then hee made himselfe a right hand of yron, which he fastened to his arme, and fighting with the help of it, he raised

A raised the siege from before *Cremona*, and saued *Placentia*. In France he forced 12 fortified camps of the enemies. All which exploits appeare vpon record in that Oration of his which he made in his Pretorship, at what time as his Colleagues and companions in gouernement would not permit him to be at the solemne sacrifices, because he had a maim, and wanted a lim. But what heaps of crowns and chaplets, thinke you, would he haue gathered together, if he had bin committed and matched with any other enemies but *Annibal*? Certes, to know a man of worth indeed, much materiall it is to consider in what time hee liueth, and is imployed, for the prooue of his valour. For what store of ciuick coronets and garlands, yeelded either the battell of *Trebia* and *Ticinus*, or of *Thrasymenus* the lake? What crowne could haue bin gained and woon at the iourney of *Cannæ*, where the best seruice was by good footmanship to flie & run away? To conclude, all others may vaunt verily, that they haue vanquished men; but *Sergius* may boast, that he hath conquered and overcome euen Fortune her selfe.

CHAP. XXIX.

¶ The commendation of some men for their quick wits.

WHO is able to make a muster as it were of them that haue been excellent in wit: so difficult a matter it is to run through so many kinds of sciences, and to take a suruey of curious handi-works in such varietie, of most rare and singular artifices? Vnlesse haply we agree vpon this, and say, that *Homæ* the Greeke poet excelled all other, considering either the subiect matter, or the happy fortune of his worke. And hereupon it was, that *Alexander* the Great (for in this so proud a censure and comparison, I shal do best to cite the iudgment of the highest, and of those that be not subiect to enuie) hauing found among the spoils of *Darius* the king, his perfumier or casket of sweet ointments, and the same richly imbellished with gold and costly pearls and precious stones, when his friends about him shewed him many vses whereto the said coffer or cabinet might be put vnto, considering that *Alexander* himselfe could not away with those delicate perfumes, being a warriour, and slurried with bearing armes, and following warfare: when, I say, his gallants about him could not resolute well what seruice to put it to: himselfe made no more ado but said thus, I will haue it to serue for a case of *Homers* bookes: judging hereby, that the most rare and precious worke proceeding from that so admirable a wit of man, should be bestowed and kept in the richest box and casket of all others: the same prince, in the forcing and faggage of the citie of *Thebes*, caused by expresse commandement, That the dwelling house & whole family of *Pindarus* the Poet should be spared. He built againe the natie city wherein *Aristotle* the Philosopher was borne: and in so glorious a shew of his other worthy deeds, would needs intermingle this testimony of his bounty, in regard of that rare clerke who gaue light to all things in the world. The murderers of *Archilochus* the poet, the very Oracle of *Apollo* at *Delphi* disclosed and reuealed. When *Sophocles* the prince of all tragicall Poets was dead in Athens, at what time as the citie was besieged by the *Lacedæmonians*, god *Bacchus* appeared sundry times by way of vision in a dreame to *Lyfander* their king, admonishing him to suffer his delight, and him whom he set most store by, for to be enterred. Whereupon the king made diligent enquire who lately was departed this life in Athens: and by relation of the citizens soone found it out and perceiued who it was that the foresaid god meant, and so gaue them leave to bury *Sophocles* in peace, and to performe his funeralls without any molestation or impeachment.

CHAP. XXX.

¶ Of Plato, Ennius, Virgil, M. Varro, and M. Cicero.

Denis the tyrant, borne otherwise to pride and cruelty, being aduertised of the coming and arriual of *Plato*, that great clerke and prince of learning, sent out to meet him a ship adorned with goodly ribbands, and himselfe mounted vpon a charriot drawne with foure white horses, receiued him as if he had bin a King. At the haue, when hee disbarked and came aland, *Socrates* sold one Oration that he made for 20 talents of gold. *Aschines* that famous oratour of Athens in his time, hauing at *Rhodes* rehearsed that accusatorie oration which he had

made against *Demosthenes*, read withall his aduersaries defence againe, by occasion wherof he was confined to Rhodes, and there liued in banishment: and when the Rhodians that heard it wondred thereat, Nay (qd. *Aeschines*) you would haue maruelled much more at it, if you had heard the man himfelfe pronouncing it, & pleading *Vina voce*: yeelding thus as you see a notable testimony of his aduersary, in the time of his aduersitie. The Athenians exiled *Thucydides* their Generall Captaine: but after he had written his Chronicle, they called him home again, wondring at the eloquence of the man, whose vertue and prowess they had before condemned. The KK. of Egypt and Macedonie gaue a singular testimony how much they honoured *Menander* the Comickall poet, in that they sent Embassadors for him, and a fleet to waite him for his more securitie: but he wan vnto himfelfe more fame and glory by his owne settled iudgement, for that he esteemed more of his owne priuat study and following his book, than of all those fauors offered vnto him from great princes. Moreover, there haue bin great personages and men of high calling at Rome, who haue shewed the like in token, how they esteemed and regarded the learned crew of forreine nations. *Cn. Pompeius*, after he had dispatched the war against *Mithridates*, intended to go and visit *Pesidomus*, that renowned professor of learning; and when hee should enter into the mans house, gaue streight commandement to his Lictors or Huishers, that they should not (after their ordinary maner with all others) rap at his dore; and this great warriour, vnto whom both the East and West parts of the world had submitted, vailed bonet, as it were, and baid his armes and ensignes of state which his officers carried, before the veric dore of this Philosopher. *Cato*, tyrrnamed *Censorius*, vpon a time when there came to Rome that noble embassage from Athens, consisting of three, the wisest sages among them; when hee had heard *Carneades* speake (who was one of those three) gaue his opinion presently, That those embassadors were to be dispatched and sent away with all speed; for feare least if that man argued the case, it would be an hard piece of worke to found and find out the truth, so pregnant were his reasons, and so witty his discourfes. But Lord! what a change is there now in mens manners and dispositions! This *Cato*, the renowned Censor, both now and at all times else, could not abide to haue any Grecian within Italy, but alwaies gaue iudgement to them all in generall to be expelled: but after him there comes his nephew once remoued, or his nephewes sonne, who brought one of their Philosophers ouer with him when he had bin military Tribune or knight marshall: and another likewise vpon his embassage to Cypres. And verily a wonder it is and a memorable thing to consider how these two *Catoes* differed in another point: for the former of them could not away with the Greek tongue, the other that killed himfelfe at Vtica, esteemed it as highly. But to leaue strangers, let vs now speak of our own countrimen, so renowned in this behalfe. *Scipio Africanus* the elder, gaue expresse order, and commanded, That the statue of *Ennius* the poet should be set ouer his tomb, to the end, that the great name and stile of *Africanus*, or indeed the booty rather that hee had woon and carried away from a third part of the world, should in his monument vpon the reliques of his ashes be read together with the title of this poet. *Augustus Caesar* late Emperor, expressly forbad that the Poeme of *Virgil* should be burned, notwithstanding that he by his last wil and testament on a modesty, gaue order to the contrary: by which means there grew more credit and authority vnto the Poet, than if himfelfe had approued and allowed his owne verses. *Asinius Pollio* was the first that set vp a publicke Library at Rome, raised of the spoile and pillage gained from the enemies. In the Library of which gentleman, was erected the image of *M. Varro*, euen whiles he liued: a thing that won as great honor to *M. Varro* in mine opinion (considering that amongst those fine wits, whereof a great number then flourished at Rome, his hap only was to haue the garland at the hands of a noble citizen and an excellent Orator beside: as that other nauall crowne gained him, which *Porspey* the Great bestowed vpon him for his good seruice in the pyrats war. Infinite examples more there are of vs Romans, if a man would seeke after them and search them out: for this only nation hath brought forth more excellent and accomplished men in euery kinde, than all the lands besides of the whole world. But what a sin should I commit, if I proceeded farther and speake nor of thee, O *M. Cicero*? and yet how should I possibly write of thee according to thy worthinesse? would a man require a better prooffe of thy condigne praises, than the most honorable testimony of the whole body of that people in generall, and the acts onely of thy Consulship, chosen out of all other vertuous deeds throughout thy whole life? Thine eloquence was the cause that all the Tribes renounced the law *Agaria*, as touching the diuision of Lands among

A among the commons, albeit their greatest maintenance and nourishment consisted therein. Through thy persuation they pardoned *Roscus*, the first author of that seditious bill and law, whereby the States and degrees of the city were placed distinctly in their seats at the Theatre: they were content I say, and tooke it well, that they were noted and pointed at for this difference in taking place and rowms, which he first brought in. By means of thy orations, the children of proscrip and outlawed persons were ashamed and abashed to sue for honorable dignities in common-weale: thy witty head it was that put *Catiline* to flight, and banished him the city: thou, and none but thou didst out-law *M. Antonius*, and put him out of the protection of the State. All haile therefore, O *M. Tullius*, faire chieue thee, thou that first was saluted by the name of *Parens patrie*, i. Father of thy countrey: first that deserved triumph in thy long robe, & the laurel garland, for thy language: the only father indeed of eloquence & of the Latin tongue: and (as *Cesar* Dictator sometime thine enemy hath written of thee) hast deserved a crown aboue all other triumphs, by how much more praise-worthy it is, to haue amplified and set out the bounds and limits of Roman wit and learning, than of Roman ground and dominion.

CHAP. XXXI.

¶ Of a certaine Maestic in behauiour and cariage.

T hose, who among other gifts of the minde haue surpassed other men in sage aduise and wisdom, were thereupon at Rome surnamed *Cati*, and *Corculi*. In Greece, *Socrates* carried the name away from all the rest, being deemed by the Oracle of *Apollo Pythius*, the wisest man of all others.

CHAP. XXXII.

¶ Of Authoritie.

A gaine, *Chilo* the Lacedemonian was of so great reputation among men, that his sayings were held for Oracles, and three precepts of his were written in letters of gold, & consecrated in the temple of *Apollo* at Delphi: where the first was this, *Know thy selfe*: the second, *Set thy minde too much on nothing*. The third, *Debt and Law are alwaies accompanied with misery*. His hap was to die for ioy, vpon tidings that his son wan the best prize, and was crowned victour at the solemne game Olympia; and when he should be interred, all Greece did him honour, and solemnized his Funerals.

CHAP. XXXIII.

¶ Persons of a diuine spirit and beauly nature.

A mong women, *Sybill* was excellent at diuination, and for a certaine fellowship and societie with coelestiall wights, of great name. As for men, among the Greeks, *Melampus*: and with vs Romans, *Martius*, carried as great an opinion.

CHAP. XXXIV.

¶ *Scipio Nasica*.

Scipio Nasica was iudged once by the Senat (sworne to speak without passion and affection) to be the best & honestest man that euer was from the beginning of the world; howbeit the same man, as vpright as he was, suffered a repulse and disgrace at the peoples hands in his white Robe when he sued for a dignity; and to conclude, in the end his hap was not to depart this life in his owne countrey; no more than it was the will of God that *Socrates* the wisest man (so deemed by the Oracle of *Apollo*) should die out of prison.

CHAP. XXXV.

¶ Of Chastitie.

Ulpia, daughter of *Paterculus*, and wife to *Fulvius Flaccus*, by al the voices in general of Roman dames, carried away the prize for continencie, and was elected out of the hundred principall matrons of Rome to dedicate and consecrate the image of *Venus*, according to

and ordinance out of *Sybil*s bookes. *Claudia* likewise, was by a religious and deuout experiment proued to be such another, at what time as she brought the mother of the gods, *Cybele* to Rome.

CHAP. XXXVI.
¶ Of Pietie or kindnesse.

IN all parts verily of the world, there haue been found infinite examples of naturall loue and affection, but one example thereof at Rome hath been knowne singular about all others, and incomparable. There was a poore young woman of the common sort, and therefore base and of no account, who lately had been in childbed, whose mother was condemned to perpetuall prison, and there lay, for some great offence that she had committed: this daughter of hers and young nource afore said, obtained leaue to haue acceffe vnto her mother, and euermore by the gaoler was narrowly searched for bringing to her any victuall, because her iudgment was to be famished to death: thus she went and came so long, vntill at last she was found suckling of her mother with the milke of her breasts. This was reputed for such a strange and wondrous example, that the mother was released and giuen to the daughter for her rare pietie and kindnes: both of them had a pension out of the city allowed them for their amaintenance for euer; and the place where this hapned was consecrated to *Pietie*: in so much, as when *C. Quintius* and *M. Acilius* were Consuls, there was a temple to her built, in the very place where this prison stood, iust whereas now standeth the Theatre of *Marcellus*. The father of the *Gracchi* happened to light vpon and take two serpents within his house, whereupon he sent out to the Sooth-sayers for to know, what this thing might preface; who made this answer, That if he would himselfe liue, the female snake should be killed; Nay marry (qd. he) not so, but rather kill the male; for my wife *Cornelia* is yong enough, and may haue more children. This said he, meaning to spare his wiues life, in consideration of the good she might do to the common weale. And in truth; like as the wizards prophesied, so it fell out soone after, and their words tooke effect. *M. Lepidus* so entirely loued his wife *Apuleia*, that he died for very thought and grieue of heart, after shee was diuorced from him and turned away. *P. Rutilius* chanced to be somewhat ill at ease and sickish, but hearing of his brothers repulse, and that hee was put by his Consulship (for which he stood in suit) died suddenly for sorrow. *P. Catiens Philotimus* folowed his Lord and master, that notwithstanding he was by him made his sole heire of all that euer he had, yet for kind heart, cast himselfe into the funerals fire to be burnt with him.

CHAP. XXXVII.

¶ Of diuers excellent men in many Arts and Sciences, and namely in Astrologie, Grammer, and Geometrie.

IN the skill and knowledge of sundry Sciences, an infinit number of men haue excelled; howbeit, we wil but take the very floure of them all, and touch those only whom meet it is to be named for their speciall desert. In Astrologie, *Berosus* was most cunning; in so much as the Atheniens for his diuine predictions and prognostications, caused his statue with a golden tongue, to be erected in the publicke schoole of their Vniuersitie. For Grammer, *Apollodorus* was singular, and therefore was highly honored of the States of Greece, called *Amphictyones*. In Physicke, *Hippocrates* excelled, so far forth as by his skill hee foretold of a pestilence that should come out of Sclauonia; and for to cure and remedie the same, sent forth his disciples and schollers to all the cities about. In recompence of which good desert of his, all Greece by a publick decree ordained for him the like honors, as vnto *Hercules*. For the very same cunning and science, king *Proton* gaue vnto *Cleombrotus* of Cea (at the soleme feast holden in the honour of the great mother of the gods) a hundred talents, and namely for curing the king *Amibolus*. *Critobolus* likewise acquired and got himselfe a great name; for drawing an arrow forth of king *Philips* eie, and curing the wound when he had don, so as the sight remained, & no blemish or deformity appeared. But *Aesclepiades* the Prusian, surpassed all others in this kind, who was the first author of that new sect which bare his name, reiecting the embassadors, the large promises & fauors offered of *K. Mithridates*: found out the way and means to make wine wholesome and medic-

A medicinable for sicke folke: and recovered a man to his former state of health, who was caried forth vpon his bier to be buried: and lastly he attained the greatest name; for laying a wager against fortune, and pawning his credit so farre as he should not be reputed a Physitian, in case he euer were known to be sicke or any way diseased. And in truth the wager hee woon; for his hap was to liue in health vntill he was very aged, and then to fall downe from a paire of staires, and so to die suddenly. A singular testimonie of skill and cunning *M. Marcellus* gaue vnto *Archimedes* that notable Geometrician and Engineer of Syracusa, who in the saccage and rifling of that city gaue expresse commandement concerning him alone, that no violence should be done vnto him: howbeit hee will failed of his execution, by occasion of a souldier, who in that hurly-burly slew him, not knowing who he was. Much commended and praised is *Ctesiphon* of Gnosfos, for his notable knowledge in Architecture, and namely for the wonderful frame of *Dianacs* Temple at Ephesus. *Philon* likewise was highly esteemed for making the Arsenall at Athens, able to receiue 1000 ships. *Ctesibius* also was much accounted of for deuising winde Instruments; and by means of certain engins to draw and send water to any place. *Democrates* also the enginier eternised his name for casting the plot and deuising the modell of Alexandria in Egypt, at what time as *Alexander* the great founded it. To conclude, this mighty prince and commander *Alexander* streightly forbad by expresse edict, That no man should draw his portrait in colours but *Apelles* the painter: that none should engraue his personage but *Pyrgoteles* the grauer: and last of all, that no workman should cast his image in brasse but *Lysippus* a Founder. In which three feats many Artisans haue excelled for their rare workmanship.

CHAP. XXXVIII.

¶ Singular works of Artificers.

KING *Autalus* cheapned one picture wrought by the *Aristides* Theban, and 100 talents for it. *Cesar* the Dictator offered to *Timomachus* eight talents for two pourtraits, to wit, of *Medea* and *Ajax*, which he meant to set vp and consecrate in the temple of *Venus Genetrix*. King *Candaules* bought of *Butarchus* a painted table, wherein was drawne the defeature and destruction of the *Magnetes*, which tooke vp no great roome, and weighed out the poise thereof in good gold. King *Demetrius*, surnamed *Expugnator*, [i. the conqueror and great forcer of cities] forbore to set Rhodes on fire, because he would not burne one painted table the handiwork of *Protagenes*. *Praxiteles* was innobled for a rare Imager and cutter in stone and marble: he eternised his memoriall by making one image of *Venus* for the *Gnidians*, so liuely, that a certaine yong man became so amorous of it, and so doted thereon, that he went beside himselfe: which piece of worke was esteemed of such worth by *Nicomedes*, that whereas the *Gnidians* owed him a great sum of money, he would haue taken it for full paiement of the whole debt. The statue of *Iupiter Olympius* is to be seen, and dayly commendeth the workman *Phydias*. *Iupiter* likewise *Capitolinus*, and *Diana* in Ephesus yeeld good testimonies of *Memors* cunning: and the tooles or instruments of the said workman were consecrated (for their exquisit making) vnto them in their temples, and there remaine.

CHAP. XXXIX.

¶ Of Seruants and Slaues.

I Haue not knowne or heard to this day, of a man borne a slaue, that was prised so high as *Daphnis* the Grammarian was: for *Cn. Pisarenus* held him at 300700 Sesterces to *M. Scaurus* a great and principall man of Rome. Howbeit in this our age certain stage players haue gon beyond this price, and that not a little: many they were such as had bought out their freedom before, and were not then slaues. And no maruell, for we finde vpon record, that the great Actor *Roscus* in former time might yerely dispend by the stage 500000 Sesterces. Vnlesse a man desire in this place to heare of the Treasurer and purueior general of the army in Armenia for the late wars of King *Tyridates*, who was infranchised by means of *Nero*, for 120000 Sesterces, but it was the war that cost thus much, and not the man. Like as *Sutorius Priscus* gaue vnto *Sciannus* 3500 Sesterces for *Pazon* one of his gelded Eunuchs: For a man would say that this was

was more to satisfie his filthy lust, than for any special beauty to be seen in the said Person. But he rooke the vantage of the time, and went cleare away with this impious villanie: for at what time as he bought him, the city was in perplexitie and sorrow, and no man for thinking of greater affaires and troubles, had any leisure to finde fault or say a word in reproofe of such enermities.

CHAP. XL.

¶ The excellencie of Nations.

Doubtlesse it is, and past all question, that of all Nations vnder the Sun, the Romans excell and are the only men for all kinde of vertues. But to determine who is the happiest man in all the world is about the reach of humane wit; considering that some take contentment and repose felicitie in this thing, others in that, and euery one measureth it according to his feuerall fancy and affection: but to say a truth, and iudge aright indeed, laying aside all the glosing flatteries of fortune, and without courting her to determin this point, There is no man to be counted happy in this world. Right well it is on our side, and Fortune dealeth in exceeding fauor with vs, if we may not iustly be called vnhappy: for put case there be no other miserie and calamitie besides, yet surely a man is euer in feare lest Fortune will frowne vpon him, and do him a shrewd turne one time or other: and admit this feare once, there can be no sound happinesse and contentment in the minde. What shall I say moreouer than this, that no man is at all times wise and in his perfect wits? Would God that this were taken of most men for a Poets word only, and not a true saying indeed. But such is the vanity and folly of poore mortall men, that they flatter themselves, and are very witty to deceiue themselves, making their accounts and reckonings of good and euill fortune like to the Thracians, who by certain white and blacke stones which they cast into a certaine vessel, and there laid vp for the better prooffe and triall of euery dayes fortune; and at the last day and time of their death they fall to parting these stones one from another, and telling them apart, and according to the number of the white and blacke, giue iudgement and pronounce of each ones fortune. But what say they to this, that many times it falleth out, that the day marked with a white stone, for a good day, had in it the beginning & ouerture of some great misfortune and calamitie? How many men haue seemed to fall into Fortunes lap, and entred vpon great empires and dominions, which in the end turned to their afflictions and miseries? How many haue we seen ouerthrowne, punished extremely, and brought to vtter ruine, euen by means of their owne good parts and commendable gifts? Certes these be good things & great fauors, if a man could make full account to enioy them but one houre with contentment. But thus verily stands the case, and this is the ordinary course of this world: one day is the iudge of another, and the day of death iudgeth and determineth all: and therefore there is no trust in them, neither may wee assure our selues of any. To say nothing of this, that our good fortunes are not in number equall to our bad: and say there were as many of the one as of the other, Is there any one ioy to be weighed in true ballance against the least grief and sorrow that cometh? Foolish and fortifish men that we are for all our curiositie! for we reckon our daies by tale and number, whereas we should ponder and peise them by weight.

CHAP. XLI.

¶ Of the highest tipe and pitch of felicity.

Lampido the Lacedemonian Lady is the only woman that euer was knowne to haue bene daughter to a King, a Kings wife, and mother to a King. Also *Pherenice* was known alone to be the daughter, sister, and mother to them that wan the victorie and carried away the best prise at the Olympian games. In one house and race of the *Curices* there were known three excellent Orators one after another by discent from the father to the son. The only family and line of the *Fabij* afforded three Presidents of the Senat in course, one immediatly vnder another, to wit, *M. Fabius Ambustus* the father, *Fabius Rullianus* the father, *Fabius Rullianus* the son, and *Q. Fabius Gurges* the nephew.

CHAP.

CHAP. XLII.

¶ Examples of Fortunes mutabilitie.

Infinite other examples we haue of the varietie and inconstancie of Fortune: for what great ioyes to speake of, gaue she euer, but vpon some mishap or other? Again, the greatest miseries and calamities that haue bin, haue they not ensued vpon the most ioyes and contents.

CHAP. XLIII.

¶ Of one twice outlawed and out of protection: as also of *Q. Metellus* and *L. Sylla*.

Fortune preferred for 36 yeares *M. Fidiustius* a Senator, outlawed by *Sylla*: yet hapned hee afterward to be outlawed the second time; for he out-liued *Sylla*, and continued vnto the time of *Marcus Antonius*: and for certain it is knowne, that by him hee was banished and outlawed againe, for no other reason but because he had been so before-time. So kind was Fortune to *P. Ventidius*, as that she would haue him to triumph alone ouer the Parthians: but shee had before time so good as played with him, when shee saw him led (being a boy) as prisoner in *Cn. Pompeius Strabo* his triumph for the defeature and ouerthrow of the Asulanes. Although *Massurius* testifieth, that he was so led in triumph as a slaue twice: *Cicero* saith, that hee was at first but a Mulitier, and draue mules laden with meale for the oven, to serue the campe. Many other asseme, that in his youth hee was a poore souldier, and serued as a footman in his single trouses and grieues. Moreouer, such good fortune had *Balbus Cornelius*, as to the senior Consull and declared Elef before his fellow: but before time he had bene in trouble, and iudicially accused, yea and a Iury was impanelled to go vpon him, so as he was in danger to be whipped, vpon their verdict. Well, this mans hap for all this was to be the first Roman Consull of Forreiners, and namely Islanders within the main Ocean: he (I say) attained to that honor, which *L. Fulvius* may go for one, who was Consull of the Tusculans when they reuolted and rebelled against the Romans: howbeit forsaking his owne citisens, and returning to Rome, was presently by the whole people aduanced to the same honour amongst them, and he was the man alone knowne to haue triumphed in Rome ouer them whose Consull he was, euen the same yere that he himselfe was as a Roman enemy in the field. *L. Sylla* was the only man vntill our time that challenged vnto himselfe the syname of *Felix*. But how was hee adopted as it were into this name, forsooth euen by shedding and spilling so much innocent bloud of Roman citisens, and by waging war against his native country? And whereupon I pray you grounded he this happinesse of his, and had so great an opinion thereof, if this were not it, that he was able to banish, that he was able to banish, confiscate, and put to death so many thousand citisens? O false and deceitfull interpretation, dangerous, unhappy, and pernicious euen to posteritie and the time to come! For were not they more blessed and happy, who then fortunated to lose their liues, (whose death at this day we pittie, and whom we take compassion of) than *Sylla*, whom all men at this day hateth and abhorreth? Moreouer, was not his end more cruell and horrible than the sorrow of all those that by him were outlawed, and their goods forfeit? for his owne wretched body did eat, gnaw, and consume it selfe, and bred daily and hourelly lothsome vermine to put the same to paine and torment. And say that he dissembled all this, and would not be knowne of it; and suppose we gaue credit that last dreame of his (wherein he lay as it were dead or in a trance) vpon which he gaue out this speech, that himselfe and none but he had the glory to surmount all enuy: yet in this one thing he plainly confessed that his felicitie came short & was defectiue, in that he had not time to consecrate the Capitoll Temple. *Q. Metellus* in that generall oration of his which he made in praise and commendation (as the manner was) of *L. Metellus* his father, gaue these laudable reports of him, that he had been the foueraigne Pontiffe or high-Priest of Rome, twice Consull, Dictator, Generall of the horse, one of the fifteen Quindecenvirs deputed for diuision of lands among the souldiers and Commons: and that in the first Punicke warre he shewed many Elephants in a triumph: moreouer he left in writing, that hee had accomplished ten of the greatest and best points belonging to this life: in the seeking whereof

whereof and in attaining thereunto, all the great Sages of the world spend their whole life: for (saith he) his desire was, and he thereto aimed, namely, to be a most doubty and hardy warrior, an excellent orator, a right valiant captaine and commander: also, to haue the conduct, charge, and execution of the greatest and most important affaires, to be in the highest place of honor, to be singular in wisdom, to be accounted the principall and chiefe in Senat, to come to great riches by good and lawfull means, to leaue much faire issue behind him: and to conclude, to be simply the best man of all other, and the principall person in the city. To these perfections he (and none but he since Rome was Rome) attained. Now to confute this were a long and needlesse piece of worke, considering that one only mischance checked these fauors of Fortune, and fully disproued all: for the very same *Metellus* became blinde in his old age, for hee lost his eyes in a skare-fire, at what time hee would haue saued and got away the *Palladium*, i. Image of *Minerva*, out of the temple of *Vesta*. His act I confesse was vertuous and memorabile, but the event was ill for him and miserable. In regard whereof I know not how he should be called happy and wretched: and yet I see not why he should be named happy and fortunate. This I must needs say in conclusion, that the people of Rome granted vnto him that priuiledge, that nener man in the world was knowne to haue, namely, to ride in his coach to the Senat house so oft as he sate at the counsell table. A great prerogatiue I confesse, and most statelly, but it was allowed him for want of his eyes.

CHAP. XLIV.

¶ Of another *Metellus*.

A Sonne likewise of this *Metellus*, who gaue out those commendations aforesaid of his father, may be put in the ranke of the most rare presidents of felicitie in this world: for besides the most honorable dignities and promotions hee was aduanced vnto in his life time, and the glorious addition and surname of *Macedonicus*, which he got in Macedonia; when he was dead, there attended vpon his dead corps at his funerals to inter him, foure of his sons; the one Pretor for the time being; the other three had been Consuls in their time: & of these three, two had triumphed in Rome, and the third had been Censor. These were points, I may tell you, of great note and regard, and few men are to be found in comparison, that can come to any one of them. And yet see! in the very prime and floure of all these honors, it fortuned that *Catinius Labio*, surnamed *Macerio*, a Tribune or protector of the Commons (whom he before by vertue of his Censorship had displaced out of the Senat) waited his time when he returned about noone from *Mars* field, and seeing no man stirring in the market place, nor about the Capitoll, tooke him away perforce to the cliffe *Tarpeius*, with a full purpose to pitch him downe headlong from thence and to breake his necke. A number came running about him, of that crue and company which was wont to salute him by the name of Father; but not so soone as such a case required, considering this so sudden an occurrent: and when they were come, went but slowly about any rescue, and kept a soft pace, as if they had waited vpon some corps to a buriall; and to make resistance and withstand perforce the Tribune, armed as he was with his sacrosanct and inuiolable authoritie, they had no warrant by Law: insomuch as hee was like to haue perished and come to a present mischiese, euen for his vertue, and faithfull execution of his Censorship, had there not been one Tribune of ten found, hardly and with much adoe to step between and oppose himselfe against his Colleague, and so by good hap rescued him out of his clutches, and saued him as it were at the very pits brinke, enen from the vtter point of death. And yet he liued afterwards of the courtesie and liberalitie of other men: for why, All his goods from that day forward were seised as forfeit and confiscate, by that Tribune whom before time he had condemned: as if hee had not suffered punishment and sorrow enough at his hands, yet haue his necke so wrythed by him, as that the bloud issued out at his very eares. Certes for mine owne part I would reckon this for one of his crosses and calamities, That hee was an enemy to the later *Africanus* *Emilianus*, euen by the testimonie and confession of *Macedonicus* himselfe: for after the death of the said *Africanus*, these were his words vnto his owne sonnes; Go your waies first and do honour to his Obsequies, for the funerall of a greater personage, and a better Citisen, shall you neuer see. And this spake he to them when as they had conquered *Creta* and the *Balearic* Islands, and thereof were surnamed *Creticus* and *Balearicus*, and

A and had worne the lawrell diadem in triumph; being himselfe already entituled with the stile of *Macedonicus*, for the conquest of Macedonia. But if we consider and weigh that onely wrong and iniurie offered him by the Tribune, who is it that can iustly deeme him happy, being exposed as he was to the pleasure, mercy, and force of his enemy, far inferior to *Africanus*, and so to come to confusion? What were all his victories to this one disgrace? what honors and triumphant chariots strooke not Fortune downe with her foot, and ouerturned all againe, or at least wife set not back again with this her violent course, suffering a Roman Censor to be haied and tugged in the very heart of the city (the only way indeed to bring him to his death) to be harried I say vp to that capitoll hill there to make his end, whither aforesaid hee ascended in triumph, but neuer committed that outrage vpon those prisoners and captiues whom hee lead in triumph, and for whose spoiles he triumphed, as to hale and pull them in that rude sort? And verily the greater was this outrage, and seemed the more heinous, in regard of the felicity that afterward ensued: considering, that this *Macedonicus* was in danger to haue lost so great an honor as he had in his solempne and statelly sepulture, namely when he was caried forth to his funerall fire by his triumphant children, as if he had triumphed once again at his buriall. In sum, that can be no sound and assured felicitie that is interrupted with any indignitie or disgrace wharsoeuer: much lesse by such an one as this was. To conclude, I wot not well whether there be more cause to glory for the modest cariage of men in those daies, or to grieue at the indignitie of the thing, in that among so many *Metelli* as there were, so audacious a villanie as this was of *Catinius* was neuer reuenged vnto this day.

CHAP. XLV.

¶ Of *Augustus* *Cesar* late Emperor.

As touching the late Emperor *Augustus*, whom all the world rangeth in this ranke of men fortunat: if we consider the whole course of his life we shal find the wheele to haue turned often, and perceiue many changes of variable fortune. First, his owne vnclie by the mothers side put him by the Generalship of the horse; and notwithstanding all his earnest suit preferred *Lepidus* to that place before him: secondly, he was noted and thought hardly of for those outlawries of Roman citizens, and thereby purchased himselfe much hatred and displeasure: tainted also he was for being one of those three in the Triumvirate, yoked and matched with wicked companions and most dangerous members to the weal publique: and this galled him the more, that in this fellowship, the Roman empire was not equally and indifferently parted among them three, but *Antonie* went away with the greatest share by odds. Also his ill fortune was in the battell before *Philippus* to fall sicke, to take his flight, and for three daies, diseased as he was, to lurke and lie hidden within a marish: whereupon (as *Agrippa* and *Mecenas* confesse) he grew into a kinde of dropsie, so as his belly and sides were puffed vp and swelled with a waterish humor, gotten and spread betwixt the flesh and the skin. Furthermore, he suffered shipwrecke in Sicily, and there likewise he was glad to skulk within a caue in the ground. What should I say, how when he was put to flight at sea, and the whole power of his enemies at his heeles, he besought *Proculus* in that great danger to rid him out of his life: how he was perplexed for the quarrels and contentions at *Perusium*: in what feare and agonie hee was in the battell of *Actium* (a towne of *Albanie*) as also for the issue of the Pannonian warre, for the fall of a bridge and a towne both. So many mutinies among his soldiers, so many dangerous diseases: the iealousie and suspicion that he had euermore of *Marcellus*: the reproch & shame he sustained for confining and banishing *Agrippa*: his life so many times laid for by poison and other secret traines: the death of his children, suspected to haue bin by indirect meanes: the double sorrow and grief of heart thereby, and nor altogether for his childelesse estate. The adulterie of his owne daughter, and her purpose of taking his life away, detected and published to the World: the reprochfull departure and slipping aside of *Nero* the sonne of his Wife: another adulterie committed by one of his owne Nieces.ouer and aboue all this, thus many more crosses and troubles comming one in the necke of another: namely, want of pay for his soldiery, the rebellion of *Sclauonia*, the mustering of slaues and bond seruants to make vp his army, for want of other able youths to leuy vnto the warres: Pestilence in Rome Citie: famine and drought vniuersally throughout Italy: and that which more is, a deliberat purpose

and resolution of his to famish and pine himselfe to death, hauing to that end fasted 4 dayes G
and 4 nights; and in that time receiued into his body the greater part of his owne death. Besides, the ouerthrow and rout of *Varus* his forces, the foule staine and blemish to the touch of his honor and maiestie very neere: the putting away of *Posthumus Agrippa* after his adoption, and the misse that he had of him after his banishment: then, the suspicion that hee conceiued of *Fabius* for disclosing his secrets: adde hereto the opinion and conceit he tooke of his owne wife and *Tiberius*, which surpassed all his other cares. To conclude, that god, and he who I wot not whether obtained heauen, or deserued it more, departed this life, and left behinde him as heire to the crowne his enemies sonne.

CHAP. XLVI.

¶ Whom the gods iudge most happy.

I Cannot ouerpasse in this discourse and consideration the Oracles of Delphos, deliuered from that heauenly god to chasteife and repress as it were the folly and vanitie of men: and two there be which giue answer to the point in question after this manner: First, that *Phedrus*, who but a while before died in the seruice of his countrey, was most happy. Moreouer, *Gyges* (the most puissant king in those daies of all the earth) sent a second time to know of the Oracle, who was the happiest man next him: and answer was made, That *Aglauus Psophidius* was happier than the former. Now this *Aglauus* was a good honest man well steeped in yeares, dwelling in a very narrow corner of Arcadia, where he had a little house and land of his own, sufficient with the yearely commodities thereof to maintaine him plentifully with ease, out of which hee neuer went, but employed himselfe in the tillage and husbandry thereof, to make the best benefit he could: in such sort that (as it appeared by that course of life) as he coueted least, so he felt as little trouble and aduersitie while he liued.

CHAP. XLVII.

¶ Who was canonised a god here vpon earth liuing.

BY the ordinance and appointment of the same Oracle, as also by the ascent and approbation of *Iupiter* the soueraigne god, *Euthymus* the famous wrestler (who alwaies wan the best prize at Olympia saue once) was reputed and consecrated a god while he liued, and knew thereof: born he was at Locri in Italy, where one statue of his, as also another at Olympia, were both in one day stricken with lightning: whereat I see *Callimachus* wondered, as if nothing else were worthy admiration, and gaue order that he should be sacrificed vnto as a god: which was performed accordingly both while he liued, and after hee was dead. A thing that I maruell more at than any thing else, That the gods were therewith contented, and would permit such a dishonour to their maiestie.

CHAP. XLVIII.

¶ Of the longest liues.

THE terme and length of mans life is vncertaine, not only by reason of the diuersity of climates, but also because Historians haue deliuered such varietie of mens ages, and euerie man by himselfe hath a seuerall time limited vnto him at the very day of his birth. *Hesiod* (the first writer, as I take it, who hath treated of this argument, and yet like a Poet) in his fabulous discourse touching the age of man saith forsooth, that a crow liues nine times as long as we; and harts or stags 4 times as long as hee, but Rauens thrice as long as they. As for his other reports touching the Nymphs and the bird Phoenix, they are more like poeticall tales, than true relations. *Anacreon* the Poet maketh mention, that *Arganthionus* king of the Tartessians, liued 150 yeares: and *Cynaras* likewise King of the Cyprians ten yeares longer. *Theopompus* affirmeth, that *Epimenides* the Gnosian died when he was 157 yeares old. *Hellanicus* hath written, That amongst the Epians in *Ætolia* there be some that continue full two hundred yeares: and with him accordeth *Damasus*: adding moreouer, that there was one *Pictoreus* among them, a man of exceeding stature, mighty and strong withall, who liued three hundred yeares *Ephorus*,

A *Ephorus* testifieth, that ordinarily the kings of Arcadia were 300 yeares older ere they died. *Alexander Cornelius* writeth of one *Dando* a Sclauonian, who liued 500 yeares. *Xenophon* in his treatise of old age, makes mention of a King of the Latines, or as some say, over a people vpon the sea coasts, who liued 600 yeares; and because he had not liued loud enough already, he goes on still and saith, that his son came to 800. All these strange reports proceed from the ignorance of the times past, and for want of knowledge how they made their account; for some reckoned the Summer for one yeare, and the Winter for another. There were againe that reckoned euery quarter for a yeare, as the Arcadians, whose yeare was but three moneths. Ye shall haue some, and namely the Egyptians, that count euery change or new Moon for a yeare: and therefore no maruell if some of them are said to liue 1000 yeares. But to passe from these vncertainties, to things confessed and doubtlesse. Held it is in maner for a certain truth, that *Arganthionus* King of Calis reigned full 80 yeares, and it is thought he was 40 yeares old when he came vnto the crowne. And as vndoubted true it is, that *Masanissa* ware the crown 60 yeares. As also that *Gorgias* the Sicilian liued vntill he was 108 yeares old. As for *Q. Fabius Maximus* (a Roman) hee continued Augure 63 yeares. *M. Perperna*, and of late daies *L. Volulus Saturninus*, out liued all those Senators which late in counsell with them when they were Consuls, and whose opinions they were wont to aske. As for *Perperna*, when hee died, hee left but 7 of those Senators aliue, whom he had either chosen or re-elected in his Censorship: and he liued himselfe 98 yeares. Where by the way one thing commeth into my mind worth the noting, That one Lustrum or 5 yeares space there was, and neuer but one, in which there died not a Roman Senator, and that was from the time that *Flaccus* and *Albinus* the Censors finished their suruey, & solemnly purged the city after the order, to the comming in of the next new Censors, being from the foundation of Rome 579 yeares. *M. Valerius Corvinus* liued 100 yeares complete: between his first and sixt Consulats were 46 yeares; he tooke his seat vpon the yuorie chaire of estate, and was created a magistrate Curule 21 times; and no man else so often. *Mecellus* the Pontife or soueraigne priest liued full as long as he.

To come now to women: *Linia* the wife of *Rutilius* liued 97 yeares with the better. *Statilia* a noble lady of Rome, in the time of *Claudius* the Emperor, was knowne to be 99 yeares of age. *Cicerones* wife *Terentia* out-liued her husband vntill she was 103 yeares old. *Clodia* wife to *Asinius*, went beyond her, and saw 115 yeares, & yet she had in her youth 15 children. *Luccia* a common vice in a play, followed the stage and acted thereupon 100 yeares. Such another vice that plaid the foole & made sport between whiles in interludes, named *Galaria Copiola*, was brought again roact her feats vpon the stage, when *Cn. Pompeius* and *Q. Sulpitius* were Consuls, at the solempne plaies vowed for the health of *Aug. Cesar* the Emperor, in the 104 yere of her age: the first time that euer she entred the stage, to shew prooffe of her skil in that profession, was 91 yeares before, and then she was brought thither by *M. Pomponius* an *Ædile* of the Commons, in the yere that *C. Marius* and *Cn. Carbo* were Consuls. And once again *Pompeius* the Great, at the solempne dedication of his stately Theatre, trained the old woman to the stage for to make a shew, to the wonder of the world. Moreouer, *Asconius Pedianus* is mine Author, that one *Samula* liued 110 yeares; and therefore I maruell the lesse, that one *Stephanio* (who was the first of the long robe that brought dancing and footing vpon the stage) plaid his part & danced in both the Secular plaies, as well those that were set out by *Augustus* late Emperor, as which *Claudius* exhibited in his 4 Consulats, considering that between the one and the other there were but 63 yeares: and yet liued *Stephanio* many a day after. *Mutianus* witnesse h, that in Tempis (for so is the crest or pitch of the mountain *Tmolus* called) folke liued ordinarily 150 yeares. At that age *T. Fullo*nius of Bononia entred his name into the Subsidie book, at the time that *Cl. Cesar* held the generall tax: and that he was so old indeed, appeared truly as wel vpon record in the registers of office, by conferring and laying together feuerall payments by him made from time to time, as also by certain things he had seen and known done in his life time (for the Emperor had a speciall care and regard, that way to find out the truth.)

CHAP. XLIX. Of diuers Horoscopes or Natiuities of men.

THIS point would require the conference and aduice of Astrologers: for *Epigenes* saith, it is not possible for a man to liue 122 yeares: and *Berosus* is of opinion, that one cannot passe 117. The proportion and reckoning holdeth still for good, which *Pesofirs* and *Nesepfos* calcula-

calculated and grounded vpon their Quadrant, which they call *Tetartemorion*, that is to say, the G
compasse in the Zodiaque of three signes: Orientall, which determine of the life or death of
men, according to which account it is euident, that in the tract or clymat of Italy men may
reach to 126 yeares. The aboue-named Astrologers affirmed, that a man could not possibly
passe the space of 90 degrees from the Ascendent or erection of his natiuitie (which they call
Anaphoras) and that euen this course through the degrees of three signes, is many times inter-
rupted and cut short, either by the opposition and encounter of some wicked planets, or by the
maligne aspects of them or by the Sun. On the other side, *Asclepiades* and his sect affirme, that the
length of our life proceedeth from the influence of the [fixed] stars: but as touching the vt-
most terme thereof they set downe nothing definitiuelly: many thus much they say, That the H
fewer sort of men liue any long time; for that the greatest number by far haue their natiuitie
incident and liable to the dangerous houres and time, either of the moones occurrence (as in
her Quadrature, Opposition, and Sextile aspect) or of daies according to the number of seuen
or nine (which are daily and nightly marked and obserued): whereupon ensueth the rule of the
dangerous graduall yeares, called Clymaticke: and such as are in that wise borne, lightly
liue not about 54 yeares. And here we may see by the doubtfulnessse and incertitude of this
science of Astrologie, how vncertain this whole matter is which we haue in hand. Moreover,
wee found the contrarie by experience and many examples; and namely in the last taxation,
the numbring, and review of the prouinces subiect to Rome within Italy, that was taken vnder the
Cæsars Vespasians, the father and the sonne, both Emperors and Censors. And here we need not I
to search euery corner, and to ransacke euery place very narrowly; we will onely giue instance
and set downe the examples of the one moiety thereof, namely that tract which lieth betweene
Apennine and the Po. At Parma three men were found that liued fixe score yeares: at Brixels,
one that liued 125 yeares: at Plaifance one elder by a yeare: at Faventia there was one woman
132 yeares old: at Bononie, *L. Terentius* the sonne of *Marcus*; and at Ariminum, *M. Aponius*,
reckoned each of them 150 yeares. *Tertulla* was knowne to be 137 yeares old. About Plaifance
there is a towne scituate vpon the hills, named Velleiacium, wherein six men brought a certifi-
cate, that they had liued an hundred yeares apiece: foure likewise came in with a note of an
hundred and twenty yeares: one, of an hundred and fourteene, namely *M. Mutius*, son of *Marcus*,
named *Galerius felix*. But because we will not dwell long in a matter so euident and common-
ly confessed: in the review taken of the eighth region of Italy, there were found in the rolle K
54 persons of an hundred yeares of age: 57 of an hundred and ten: two, of 125: foure of 130:
as many that were 135 or 137 yeares old: and last of all, three men of an hundred and fortie.
But let vs leaue these ages, and consider awhile another inconstant variety in the nature of
mortal men: *Homer* reporteth, that *Hector* and *Polydorus* were borne both in one night, men so
different in nature and qualitie. Whiles *C. Marius* was Consull and *Cn. Carbo* with him, who
had been twice before Consull, the fifth day before the calends of Iune, *M. Cæcilius Rufus* and
C. Licinius Calvus were borne vpon a day, and both of them verily proued great Orators: but
they sped not alike, but mightily differed one from another in the end. And this is a thing seen
daily to happen throughout the World, considering that in one houre kings and beggars are
borne, likewise lords and slaues.

CHAP. L.

¶ Sundry examples of diuers Diseases.

P *Pub. Cornelius Rufus*, who was Consul together with *M. Curius*, dreamed that he had lost his
fight, and it proued true indeed, for in his sleep he became blind & neuer saw again. Con-
trariwise *Phalerus*, [or *Iason Pherus*] being giuen ouer by the Physitions for an impostume M
he had in his chest, in dispaire of all health (purposing to kill himselfe for to be rid out of his
paine) stabbed his breast with a knife: but he found this deadly enemy to be his onely Physy-
tion. *Q. Fabius Maximus* being long sicke of a quartane Ague, strucke a battell with the Peo-
ple of Sauioy and Auvergne neere the riuer Isara, vpon the sixth day before the Ides of August,
wherein

A wherein he slew of his enemies 13000, and therewith was deliuered from his feuer, and neuer
had it after. Certes this gift of life that we haue from nature, be it more or lesse, is fraile & vn-
certain; and say that it be giuen to any in largest measure, it is but scant yet, and very short, yea
and of but small vse, if wee consider the whole course thereof from the beginning to the end.
For first, if we count our repose and sleep in the night season, a man can be truly said to liue but
halfe his life; for surely a good moiety and halfe deale thereof which is spent in sleeping, may
be likened well to death: and if he cannot sleep, it is a pain of all pains, and a very punishment.
I reckon not in this place the yeares of our infancie, which age is void of reason and sense; ne
yet of old age, which the longer it continueth, the more are they plagued that be in it. What
should I speake of so many kindes of dangers, so many diseases, so many feares, so many pensive
B cares, so many prayers for death, as that in maner we pray for nothing oftner? In which regards
how can a man be said to liue the while? and therefore Nature knoweth not what better thing
to giue a man than short life. First and foremost, the senses wax dull, the members and limmes
grow benumbed, the eye sight decayeth betimes, the hearing followeth soone after, then faile
the supporters, the teeth also and the very instruments that serue for our food and nourishment;
and yet forsooth all this time so full of grieve & infirmities is counted a part of our life. Here-
upon it is taken for a miraculous example, and that to which again we cannot find a fellow, that
Xenophilus the musitian liued 105 yeares, without any sickness or defect in all his body. For
all other men, beleaue me, are vexed at certain houres (like as no other creatures besides) with
the pestiferous heats and shaking colds of the feuer in euery ioynt, sinew, and muscle of the bo-
die, which go and come, keeping their times in their feuerall fits, not for certain houres in the
day only, but from one day to another, and from night to night; one while euery third day or
C night, otherwhiles euery fourth, yea and somtime a whole yeare together. Moreouer, what is it
but a very disease, to know the time and houre of a mans death, and so to die forsooth in wise-
dome? For maladies there be in which Nature hath set down certain rules and lawes: namely
a quartaine feuer neuer lightly begins in the shortest daies of the yeare, neither in the 3 mo-
neths of winter [to wit, December, Ianuarie, Februarie.] Some diseases are not incident to
those that are about 60 yeares of age: others againe do end and passe away when youths begin
to be undergrowne, and especially this is obserued in yong maidens. Moreouer, old folke of all
other are least subiect to take the plague. Furthermore, sicknesses there be that follow this re-
gion or that, assailing and infecting the inhabitants generally therein. There be some againe
D that surprise and take hold of seruants only, both all and some: others touch the best persons
alone of the highest calling, and so from degree to degree. But in this place obserued vsually it
is by experience, That a pestilence beginning in the South parts, goeth alwaies towards the
West, and neuer lightly but in winter, neither continueth it about three moneths.

CHAP. LI.

¶ Of the signes of death.

NOW let vs take a view of deadly tokens in sicknes: in rage and furious madnesse, to laugh
is a mortall signe: in frenzie, wherein men are bestraight of their right wits, to take care
of the skirts, fringes, and welts of their garments, that they be in good order; to keepe a
fumbling and pleiting of the bed-cloathes, the neglect of such things as would trouble them
in their sleepe, and breake it: the voluntarie letting go of their water; prognosticate death. A
man may see death also in the eyes and nose most certainly of all other parts: as also in the ma-
ner of lying, as namely when the patient lieth alwaies on his backe with his face vpward. We
gather signes also by the vneuen stroke of the arterie; as also when the pulse beateth so vnder
the physitians hand as if he felt an ant creeping vnder it. Other signes also there be, which *Hipo-
crates* the prince and chief of all Physitions hath very wel obserued and set down. Now where-
as there be an infinite number of signes that preface death; there is not one knowne than can
F assure a man certainly of life and health. For *Cato* that famous Censor, writing to his sonne as
touching this argument, hath deliuered, as it were out of an Oracle; That there is an observa-
tion of death to be collected euen in them that are in the most perfect health: for (saith hee)
youth resembling age, is a certaine signe of vntimely death or short life. As for diseases, they
are

ning the day of ones appearance in the court. *M. Terentius Corax*, whiles he was writing letters in the market place. No longer since than the very last yeare, a Knight of Rome, as hee was talking with another that had been Consul, and rounding him in the eare, fell downe starke dead. And this hapned before the yvorie statue of *Apollo*, which stands in the Forum of *Augustus*. But about all others it is strange, that *C. Julius* a Surgeon should die as he was dressing of a fore eie with a saue, and drawing his instrument along the eye. What should I say of *L. Mantius Torquatus*, a man who had bin sometime Consul, whose hap was to die sitting at supper, even in reaching for a cake or wafer vpon the boord. *L. Durus Valla* the phyfition died whiles he was drinking a potion of mede or sweet honied wine. *Appius Aufcius* being come out of the Baine, after he had drunk a draught of honied wine, as he was supping off a rere egge died. *P. Quintius Scapula* as he was at supper in *Aquillius Gallus* his house. *Decimus Sauscius* the Scribe, as he sate at dinner in his owne house. *Cornelius Gallus*, one who had bin Lord Pretor, and *T. Atherius* a Roman Knight, died both in the very act of *Venus*, whiles they lay vpon women. The like befell in our daies to two gentlemen of Rome, who died both as they were dealing contrary to nature with one and the same counterfeite Iester named *Mithycus*, a youth in those daies of surpassing beauty. But of all others, *M. Ofilius Hilarus*, an actor and plaier in comedies, as it is reported by antient writers, died most secure of death, & with the greatest circumstances about it: for after he had much delighted the people, & made them sport to their contentment on his birth day, he kept a feast at home in his house; and when supper was set forth vpon the table, he called for a messe of hot broth in a pottinger to drinke off; and withall casting his eye vpon the maske or visor he put on that day, fitted it for his visage, and tooke off the chaplet or garland from his bare head, and set it thereupon: in this habit, disguised as he sate, hee was starke dead and key cold before any man perceiued it: vntill he that leaned next vnto him at the boord put him in minde of his portage that it cooled, and making no answer, they found in what case he was.

These examples all be of happy deaths: but contrariwise there be an infinite number that are as miserable & vnfortunat. *L. Domitius*, a man descended of a most noble house and parentage, being vanquished by *Caesar* before Marseils, and taken prisoner at Corfinium by the same *Caesar*; for very irksomnesse of his tedious life, poisoned himselfe: but after he had drunke the poison, repented of that which he had done, and did all that euer hee could to liue still, but in vaine. We finde vpon record in the publique registers, that when *Felix* one of the carnation or flesh-coloured livery that ranne with chariots in the great cirque or shew-place was had forth dead to be burnt, one of his fauorits and consorts flung himselfe into his funerall fire for company. A friuolous and small matter it is to speak of; but they of the other part that sided with the aduerser faction of other liveries, because this act should not turne to the honor and credit of their concurrent the actiue Chariotier about named, gaue it out and said, that this his friend and wel-willer did not do it for any loue he bare him, but that his head was intoxicated with the strong fauor of the incense and odors that were in the fire, and so being beside himselfe, wist not what he did. Not long before this chanced, *M. Lepidus*, a gentleman of Rome descended of a most noble family, who (as is about said) died for thought and grieve of heart that hee had diuorced his wife, was by the violent force of the flame cast forth of the funerall fire; & because of the extreme heat thereof, no man could come neere to lay his corps again in the place where it was & should be: they were faine to make another fire hard by of dry vine cuttings, and such like sticks, and so he was burnt bare and naked as he was.

CHAP. LIIII.

¶ Of Buriall or Sepulture.

TO burne the bodies of the dead hath bin no antient custome among the Romans: the manner was in old time to inter them. But after they were giuen once to vnderstand, that the corpes of men slain in the wars afar off, and buried in those parts, were taken forth of the earth again, ordained it was to burne them. And yet many families kept them still to the old guise and ceremonie of committing their dead to the earth: as namely the house of the *Cornelii*, whereof there was nor one by report burned before *L. Sylla* the Dictator, and he willed it expressly, and provided for it before hand, for feare himselfe should be so serued as *C. Marius* was, whose corpes he caused to be digged vp after it was buried. Now in Latine he is said to be

A be *Sepultus*, that is bestowed or buried any way, it makes no matter how: but *humatus* properly, who is interred only, or committed to the earth.

CHAP. LV.

¶ Of the Ghosts, or spirits of men departed.

AFTER men are buried, great diuersitie there is in opinion, what is become of their souls & ghosts, wandering some this way, and others that. But this is generally held, that in what estate they were before men were born, in the same they remain when they are dead. For neither body nor soule hath any more sence after our dying day, than they had before the day of our natiuitie. But such is the folly & vanitie of men, that it extendeth stil euen to the future time; yea, and in the very time of death flattereth it selfe with fond imaginations, and dreaming of I know not what life after this: for some attribute immortality to the soule: others deuise a certain transfiguration therof: & there be again who suppose, that the ghosts sequestred from the body, haue sence; whereupon they do them honour and worship, making a god of him that is not so much as a man. As if the maner of mens breathing differed from that in other liuing creatures; or as if there were not to be found many other things in the World, that liue much longer than men, and yet no man iudgeth in them the like immortality. But shew me what is the substance and body as it were of the soule by it selfe? what kind of matter is it apart from the body? where lieth her cogitation that she hath? how is her seeing, how is her hearing performed? what toucheth she? nay, what doth she at all? How is she employed; or if there be in her none of all this, what goodnesse can there be without the same? But I would know where shee fetleth and hath her abiding place after her departure from the body: and what an infinit multitude of souls like shadows would there be, in so many ages, as well past as to come: how surely these be but fantasticall, foolish, and childish roies, deuised by men that would faine liue alwaies, and neuer make an end. The like foolery there is in preferring the bodies of dead men: & the vanity of *Democritus* is no lesse, who promised a resurrection thereof, and yet himselfe could neuer rise again. And what a folly is this of all follies to thinke (in a mischief) that death should be the way to a second life: what repose and rest should euer men haue that are borne of a woman, if their soules should remain in heauen about with sence, whiles their shadows tarried beneath among the infernall wights: Certes, these sweet inducements and pleasing persuasions, this foolish credulitie and light beliefe, marreth the benefit of the best gift of Nature, to wit, Death, it doubleth besides the paine of a man that is to die, if he happen to thinke and consider what shall betide him the time to come. For if it be sweet and pleasant to liue, what pleasure and contentment can one haue, that hath once liued, and now doth not. But how much more ease and greater securitie were it for each man to beleuee himselfe in this point, to gather reasons, and to ground his resolution and assurance vpon the experience that he had before hee was borne.

CHAP. LVI.

¶ The first inueners of diuers things.

BEFORE we depart from this discourse of mens nature, me thinks it were meet and conuenient to shew their sundry inuentions, and what each man hath deuised in this world. In the first place, prince *Bacchus* brought vp buying and selling: he it was also that deuised the diadem that royall ensigne and ornament, and the manner of triumph. Dame *Ceres* was the first that shewed the way of sowing corne, whereas before-time men liued of mast. She taught also how to grind corne, to knead dough, and make bread thereof, in the land of Attica, Italy, and Sicily; for which benefit to mankind, reputed she was a goddesse. She it was that beganne to make lawes, how soeuer others haue thought, that *Rhadamanthus* was the first law giuer. As for Letters, I am of opinion, that they were in Assyria from the beginning time out of mind; but some thinke, and namely *Gellius*, that they were deuised by *Mercurie* in Egypt: but others say they came first from Syria. True it is that *Cadmus* brought with him into Greece from Phoenice to the number of sixteen, vnto which, *Palamedes* in the time of the Troian war added foure more in these characters following, α β γ δ. And after him *Simonides Melicus* came with other foure,

four, to wit, *z. h. r. a.* the force of all which letters we acknowledge and see evidently expressed in our Latine Alphabet. *Aristotle* is rather of mind, that there were 18 letters in the Greeke Alphabet from the beginning, namely, *α β γ δ ε ζ η θ ι κ λ μ ν ο π ρ σ τ υ φ χ ψ ω*, and that the other two *ϕ* and *χ*, were set to by *Epicharmus*, and not by *Palamedes*. *Anticlide* writeth, That one in Egypt named *Menon*, was the inuentor of letters, fifteene yeares before the time of *Phoroneus*, the most antient king of Greece; and he goeth about to proue the same by antient records and monuments out of histories. Contrariwise, *Epigenes*, an author as renowned, and of as good credit as any other, sheweth, That among the Babylonians there were found Ephemerides containing the obseruation of the stars, for 720 yeares, written in bricks and tiles: and they that speake of least, to wit, *Berosus* and *Critodemus*, report the like for 480 yeares. Whereby it appeareth evidently, that letters were alwaies in vse, time out of mind. The first that brought the Alphabet into Latium or Italy, were the Pelasgians. *Euryalus* and *Hyperbius*, two brethren at Athens, caused the first bricke and tile-kils, yea, and houses thereof to be made: whereas before their time men dwelt in holes and caues within the ground. *Gellius* is of opinion, that *Doxius* the sonne of *Cælus*, deuised the first houses that were made of earth and cley: taking his patterne from Swallows and Martins nests. *Cecrops* founded the first towne that euer was, and called it after his owne name *Cecropia*: which at this day is the castle or citadell in Athens. Some will haue that Argos was built before it, by king *Phoroneus*. And others againe, that *Sycione* was before them both. And the Egyptians affirme, That long before that, their city *Diospolis* was founded. *Cinyra*, the sonne of *Agriops*, deuised tiling and slating of houses first, as also found out the brasse mines, both within the Isle Cyprus. He inuented also pinfers, hammers, yron crows, and the Anvil or Stiche. *Danaus* sunk the first pits for wels in Greece, which then was called Argos Dipson; & sailed out of Egypt thither, for that purpose. *Cadmus* at Thebes (or, as *Theophrast*, saith) in Phœnice, found out stone quarries first. *Thraso* was the first builder of towne wals: of towers & fortresses, the Cyclops, as *Aristotle* thinketh: but the Tyrrhians according to *Theophrast*. Weauing was the inuention of the Egyptians: and dying wool, of the Lydians in Sardis. *Coster* the son of *Arachne* taught the first making of the spindle for woollen yearne: and *Arachne* her selfe was the first spinner of flax thred, the weauer of linnen, and of nets. *Niceas* the Megarean deuised the fullers craft. *Boethius* shewed the art of sowing, as wel for tailors as Corviners and shoemakers. The Egyptians would haue the skill of physicke to haue bin first among them: but others affirme, That *Arabus* the son of *Babylon* & *Apollo*, was the author thereof. The first Herbarist and Apothecarie, renowned for the knowledge of simples, & composition of medicines, was *Chiron*, son of *Saturne* & *Phyllira*. *Aristotle* thinketh, that *Lydis* the Scythian taught the feat of casting and melting brasse, with the tempering also of the same: howbeit, *Theophrastus* saith it was *Delus* the Phrygian. As for the forges & furnaces of brasse, some think the Chalybes deuised, others attribute that to the Cyclopes. The discouery of the yron and steel mines, as also the working in them, was the inuention (as *Hesiodus* saith) of those in Crete, who were called *Dactyli Idæi*. Likewise of silver, *Erichthonius* the Athenian beareth the name, or (after some) *Acæus*. The gold mines, together with the melting and trying thereof, *Cadmus* the Phœnician first found out nere the mountain *Pangæus*: but there be that giue the praise hereof to *Thoas* & *Acæus* in Panchaia: or els to *Sol* the son of *Oceanus*, to whom *Gellius* attributeth the inuention of Physick, and making hony. *Midacritus* was the first man that brought lead out of the Island *Cassiteris*. And the Cyclopes inuented first the yron-smiths forge. *Corabus* the Athenian deuised the potters craft, shewing how to cast earthen vessels in moulds, & bake them in furnaces. And therein, *Anacharis* the Scythian, or after some, *Hyperbius* the Corinthian, inuented the cast of turning the roundel or globe. Carpenters art was the inuention of *Dedalus*, as also the tools thereto belonging, to wit, the saw, the chip-axe, and hatchet, the plumb line, the auger and wimble, the strong glew, as also fish-glew, and stone. Sautre. As for the rule & square, the leuell, the turners instrument, and the key, *Theodorus Samius* deuised them. *Phidon* the Argiue, or *Palamedes* as *Gellius* rather thinketh, found out measures and weights. *Pyrodes* the son of *Cilix*, deuised the way to strike fire first out of the flint; and *Prometheus*, the means to preserue & keep it in a stalke of *Ferula*, or Fennell gyant. The Phrygians inuented first the wagon & charriot with four wheelles. As for trafficke and merchandise, the Carthaginians had the first honour thereof. *Eumolpus* the Athenian was of name for planting, pruning, and cutting vines: also for setting and grassing trees. *Staphylus* the sonne of *Silenus* taught men how to delay wine with

A with water. *Aristeus* the Athenian inuented the making of oyle oliue, as also the presse & mill thereto belonging. The same man taught the cast of drawing hony out of the combs. *Buzges* the Athenian, or as others would haue it, *Tripolemus*, yoked oxen first for tillage of the ground; and deuised the plough. The Egyptians were the first of al men that were gouerned by the monarchy; and the Athenians, by a popular state. After the reigne of *Theseus*, the first king or tyrant was *Phalaris*, at Agrigentum in Sicily. The Lacedæmonians brought in bondage and slavery, first. The first iudgement that passed for life and death, was in the court *Ariopagus* at Athens. The first battell that euer was fought, was between the Africanes and Egyptians; & the same performed by bastons, clubs, & coulstaues, which they call *Phalangæ*. Shields, bucklers, and targets were deuised by *Prætus* and *Anisius*, when they warred one against the other: or els by *Calchus* the son of *Athamas*. *Midias* of Messene made the first cuirace. And the Lacedæmonians, the mourian, the sword, and the speare. The Cariâns deuised the grieues, the crests, and pennaches vpon heiments. *Scythes* the son of *Iupiter*, deuised bow & arrowes: although some say that *Perfès* the son of *Perfès* inuented arrows. The *Ætolians* inuented the lance and the pike: the dart with a loup, *Ætolus* the son of *Mars*, deuised. As for the light ianelins, and the Partui-fances, *Tyrreus* brought them first into vs: & *Penthesilea* the Amazon-queene, the gleiue, bill, battell-axe, and halbard. *Pisus* found out the bore-speare and chasing staffe. Among engines of artillery, the Cretes inuented the Scorpion or crosse-bow: the Syrians, the Catapult: the Phœnicians the balist or brake, and the sling. *Pysus* the Tyrrhenian brought vp the vse of the brazen trumpet: and *Artenon Clozomenius* of the pauois, mantlets, targuet-roofs, for the assault of cities. The engine to batter wals (called sometime the horse, and now is named the ram) was the deuise of *Epeus* at Troy. *Bellerophon* shewed first how to ride on horseback. *Peletbronius* inuented the saddle, bridle, and other furniture for the horse. The Thessalians called Centaures, inhabiting neere to the mountain Pelius, were the first that fought on horseback. The Phrygiâns deuised first to driue and draw a chariot with two horses; *Erichthonius*, with foure. *Palamedes* inuented (during the Trojan war) the manner of setting an army in battell array: also the giuing of signall, the priue watch-word, the *Corps de guard*, the watch and ward. In the time of the said war, *Simon* deuised the sentinels and watch-towers, as also the espiall. *Lycanor* was the first maker of truce. *Theseus* of leagues and alliances. *Car*, of whom Caria tooke the name, obserued first the flight and cry of birds, and thereby gaue presages and fore-tokens. *Orpheus* went farther in this skil, and tooke marks from other beasts. *Dolphus* pried into beasts inwards, and thereby foretold things to come. *Amphiaraus* was the first that had knowledge in Pyromancie, & gathered signs by speculation of fire: like as *Tyresias* the Thebane, by the feeding and gesture of birds. *Amphictyon* gaue the interpretation of strange and prodigious sights, as also of dreames. *Atlas* the son of *Libya* (or as some say, the Egyptians; & as others, the Assyrians) inuented Astrology: & in that science *Anaximander* deuised the Sphere. As for the knowledge & destination of the winds *Æolus* the son of *Hellen*, he professed it first. *Amphion* brought musike first into the world. The flute and the single pipe or recorder were the inuentions of *Pan*, the son of *Mercurie*. The crooked corner, *Midias* in Phrygia deuised. And in the same country, *Marsyas* inuented the double fluit. But *Amphion* taught first to sing and play to the Lydian measures: *Thamyras* the Thracian to the Dorian: and *Marsyas* of Phrygia to the Phrygian. *Amphion* likewise (or, as some say, *Orpheus*, and after others *Linus*) plaied first vpon the Citterne or the Lute. *Terpander* put seuen strings more vnto it: *Simonides* added thereto an eight: and *Timotheus* the ninth. *Thamyras* was the first that plaied vpon the stringed instrument, Lute Cittern, or harpe, without song: & *Amphion* sung withal, or according to some, *Linus*. *Terpander* was the first that set songs for the foresaid stringed instrument. And *Dardanus* the Træzenian began first vocall musike to the pipe. The Curets taught to daunce in armour; and *Pyrrhus* the Morisk, in order of battell: and both these were taken vp first in Crete. The heroick or hexametre verse we acknowledge to haue come first from the Oracle of *Pythius Apollo*. But about the original of Poemes & Poetry, there is a great question among authors. And it is probably gathered by histories, that there were Poets before the time of this Troiane war. *Pherecides* of Syros, in the daies of king *Cyrus*, inuented first the writing in prose. *Cadmus* the Mileian wrote Chronicles, and compiled the first history: *Lycan* bath the report of setting out the first publicke games, and prouing of masteries & feats of strength of activity, in Arcadia. To *Acastus* in Iolcum we are beholden for the first solemnities and games at funerals: and after him to *Theseus*, in the streights of Isthmus. *Hercules* instituted

instituted the exercise of wrestlers and champions at Olympia: and *Pythius* was the first plaier at tennise. *Gyges* the Lydian gaue the first prooue of painting and limning, in *Aegypt*: but in Greece, *Euchir* a cousin of *Dadalus* was the first painter, as *Aristotle* supposeth; but after *Theophrastus*, it was *Polygnatus* the Athenian. *Danaus* was the first that sailed with a ship, and so he passed the seas from *Egypt* to Greece; for before that time they vsed but troughs or flat planks, deuised by *K. Erythra* to crosse from one Island to another in the red sea. But we meet with some writers who affirme, that the Troians and Mysians were the first sailers, and deuised nauigation before them in *Helle*spont, when they set out a voiage against the Thracians. And euen at this day in the British ocean, there be made certaine wicker boats of twigs couered with lether and stitche round about: in Nilus, of paper, cane-reed and rushes. *Philostephanus* witnesseth, that *Iason* first vsed the long ship or gally: but *Egeas* saith, that it was *Paralus*: *Ctesias* attributes it to *Samyras*; *Saphanas* to *Semyramis*; and *Archimachus*, to *Aegeon*. *Damastes* testifieth, that the *Erythraians* made the Bireme or gally with two banks of oares. *Thucydides* writeth that *Aminocles* the Corinthian built the first Trireme with three rows of oars to a side. *Aristotle* saith, that the Carthaginians were the first that set to sea the Quadrireme with 4 ranks of oares to a side: and *Nesichthon* the Salaminian, set afoote the first Quinquereme with 5 course of oares on either side. *Zenagoras* of Syracusa brought vp those of six; and so from it to those of ten, *Mnesigeiton* was the inuenter. It is said, that *Alexander* the Great built gallies for 12 bankes to a side: and *Philostephanus* reporteth, that *Ptoleme* surnamed *Soter*, rose to fifteen: *Demetrius* the son of *Antigonus*, to thirty; *Ptoleme Philadelphus*, to forty: and *Ptoleme Philopator* surnamed *Tryphon*, to fifty. As for ships of burthen and merchandise, as hoyes, &c. *Hippus* Tyrius inuented them. The Cyrenians made fregates; the Phoenicians, the bark; the Rhodians, the Pinace and Brigantine: I and last of all the Cyprians made the hulke and great carrack. The Phoenicians were the first that in sailing, obserued the course of the stars. The Copeans deuised the oare: the Plateans inuented the broad and flat end thereof: *Icarus* the sailer: *Dadalus* the mast and the crosse saile-yard. The vessels for transporting of horses, were the inuention of the Samians, or else of *Pericles* the Athenien. The Thasij had the honour for framing the long ships couered with hatch: for before-time they fought only from out of the hin-decke in the poupe, and the fore-castle in the proe. Then came *Pisens* the Tyrrhene, and armed the stem and beake-head of the shippe with sharpe tines and pikes of brasse: *Eupalamus* deuised the anchor: *Anacharsis* made it first with two teeth or floukes: the grappling hookes and the yron hands were the deuise of *Pericles* the Athenien, and finally, *Typhis* inuented the help of the helme, for the Pylot to steere & rule the ship. The first that set out an Armada to the sea for fight was *Minos*. The first that killed beasts was *Hyperbius* the son of *Mars*: and *Promethus* ventured to slay an oxe or a Beuise.

CHAP. LVII.

¶ Wherein appeared first the generall agreement of all Nations.

THE secret consent of all countries was shewed first in this, That they should vniuersally in all places vse the Ionian letters.

CHAP. LVIII.

¶ Of Antique Letters.

THE old characters of Greeke letters, were the same in manner that the Latine be in these daies; and this appeareth sufficiently by an antique table of brasse which came from the temple at Delphos, the which at this day is in the great library of the Palatium dedicated to *Minerva*, by the liberality of the Emperors, with this or such like inscription vpon it, *Ναυσικράτης (the son) of Τιφάμενος an Athenien, caused this table to be made and set vp to the noble virgin Minerva.*

CHAP. LIX.

¶ When Barbers were first scene at Rome.

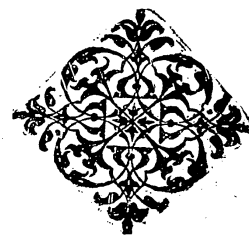
THE next thing that all people of the world agreed in, was to entertain Barbers, but it was late first ere they were in any request at Rome. The first that entered Italy came out of Sicilie, and it was in the 454 yeare after the foundation of Rome. Brought in they were by

A by *P. Ticinius Mena*, as *Varro* doth report; for before-time they neuer cut their haire. The first that was shauen euery day was *Scipio Africanus*; and after him commeth *Augustus* the Emperour, who euenmore vsed the rasor.

CHAP. LX.

¶ Of Horologies or Dials, when they were first deuised.

THE third vniuersal accord of all nations, was in the obseruation how the houres went; and this was a point grounded vpon good reason; but at what time, and by whom this was deuised in Greece, we haue declared in the second booke of this work; & long it was before this order came vp at Rome, as well as the vse of the Barber. In the 12 tables of Romane lawes, there is no mention at all made but of East and West; after certain yeres the noon-stead point in the South quarter also was obserued, and the Consuls bedle or crier pronounced noon, when standing at the hall or chamber of the counsell, he beheld the Sun in that wise betweene the pulpit called *Rostra*, and the *Grecoastasis* [which was a place where forein embassadours gaue their attendance:] but when that the same sun inclined downeward from the colunne named *Moenia*, to the common gaole or prison, then he gaue warning of the last quarter of the day, and so pronounced. But this obseruation would serue but vpon cleere daies, when the sun shined: and yet there was no other means to know how the day went, vntill the first Punicke war. *Fabius Vestalis* writeth, that *L. Papyrius Cursor*, 12 yeres before the war with *Pyrrhus*, was the first, that for to do the Romans a pleasure, set vp a sun-dyall to know what it was a clocke, vpon the temple of *Quirinus* at the dedication thereof, when his father had vowed it before him. Howbeit mine auctor sheweth not either the reason of the making of that diall, or the workman; ne yet from whence it was brought, nor in what writer he found it so written. *M. Varro* reporteth, that the first diall was set vp in the common market place, vpon a colunne neere the foresaid *Rostra*, in the time of the first Punicke war, by *M. Valerius Messala* the Consull, presently after the taking of Catana in Sicily; from whence it was brought; thirty yeaeres after the report that goeth of the foresaid quadrant and diall of *Papyrius*; namely, in the yeare after the foundation of the city 477. And albeit the strokes and lines of this Horologe or diall agreed not fit with the D houres, yet were the people ruled and went by it for a hundred yeaeres saue one, euen vntill *Q. Martius Philippus* (who together with *L. Paulus* was Censor) set another by it, framed & made more exquisitely according to Art. And this piece of work among other good acts done by the Censor during his office, was highly accepted of the people as a singular gift of his. Yet for all this, if it were a close and cloudy day wherein the Sun shone not out, men knew not what it was a clocke certainly; and thus it continued siue yeres more. Then at last, *Scipio Nasica* being Censor with *Lenas*, made the deuise first to diuide the houres both of day and night equally, by water, distilling and dropping out one vessell into another. And this manner of Horologe of water-clocke, he dedicated in the end within house, and that was in the 595 yere from the building of Rome. Thus you see how long it was, that the people of Rome could not certainly tell E how the day passed. Thus much concerning the Nature of man: let vs returne now to discourse of other liuing creatures; and first of land-beasts.



THE EIGHTH BOOKE OF
THE HISTORIE OF NATURE,
WRITTEN BY C. PLINIVS
SECVNDVS.

CHAP. I.

¶ *Of landbeasts. The praise of Elephants: their wit and understanding.*



Asse we now to treat of other liuing creatures, and first of land-beasts: among which, the Elephant is the greatest, and commeth neereſt in wit and capacitie, to men; for they vnderſtand the language of that country wherein they are bred, they do whatſoeuer they are commanded, they remember what duties they be taught, and withall take a pleaſure and delight both in loue and alſo in glory, nay more than all this, they embrace goodneſſe, honeſtie, prudence, and equitie (rare qualities I may tel you to be found in men) and withall haue in religious reuerence (with a kinde of deuotion) not only the ſtars and planets, but the ſun and moon they alſo worſhip. And in very truth, writers there be who report thus much of them, That when the new moon beginneth to appeare freſh and bright, they come downe by whole heards to a certaine riuer named Amelus, in the deſerts and foreſts of Mauritania, where after that they are waſhed and ſolemnly purified by ſprinckling and daſhing themſelues all ouer with the water, & haue ſaluted and adored after their manner that planet, they returne again into the woods & chafes, carrying before them their yong calves that be wearied and tired. Moreouer, they are thought to haue a ſenſe and vnderſtanding of religion & conſcience in others; for when they are to paſſe the ſeas into another country, they wil not embarke before they be induced thereto by an oath of their gouernors and rulers, That they ſhall returne again: and ſeene there haue bin diuers of them, being enfeebled by ſickeſſe (for as big and huge as they be, ſubject they are to grievous maladies) to lie vpon their backs, caſting and flinging herbes vp toward heauen, as if they had procured and ſet the earth to pray for them. Now for their docility and aptneſſe to learne any thing, the king they adore, they kneele before him, and offer vnto him garlands and chaplets of floures and green herbes. To conclude, the leſſer ſort of them, which they call Baſtards, ſerue the Indians in good ſtead to eare and plough their ground.

CHAP. II.

¶ *When Elephants were put to draw firſt.*

The firſt time that euer they were knowne to draw at Rome, was in the triumph of Pompey the Great, after he had ſubdued Africke, for then were two of them put in geeres to his triumphant chariot. But long before that, it is ſaid that Father Bacchus hauing conquered India, did the like when he triumphed for his conqueſt. Howbeit, in that triumph of Pompey, *Procilius* affirmeth, That coupled, as they were, two in one yoke, they could not poſſibly go in at the gates of Rome. In the late ſolemnity of tournois & ſword-fight at the ſharp, which *Germanicus Caſar* exhibited to gratifie the people, the elephants were ſeen to ſhew paſtime with leaping & keeping a ſtir, as if they danced, after a rude and diſorderly manner. A common thing it was

Plinies Naturall Hiſtory.

CHAP. III.

¶ *The docilitie of Elephants.*

This is knowne for certaine, that vpon a time there was an Elephant among the reſt, not ſo good of capacity, to take out his leſſons, and learn that which was taught him: and being beaten and beaten again for that blockiſh and dull head of his, was found ſtudyng and conning thoſe ſeats in the night, which he had bin learning in the day time. But one of the greateſt wonders of them was this, that they could mount vp and clime againſt a rope, but more wonderfull, that they ſhould ſlide downe again with their heads downward. *Mutianus*, a man who had in his time bin thrice Conſull, reporteth thus much of one of them, that he had learned to make the Greeke characters, and was wont to write in that language thus much, *Thus haue I written, and made an offering of the Cellick ſpoiles*. Likewise hee ſaith, that himſelfe ſaw at Puteoli, a certain ſhip diſcharged of Elephants embarked therein; and when they ſhould be ſet aſhore, and forced to go forth of the veſſel, to which purpoſe there was a bridge made for them to paſſe ouer, they were affrighted at the length thereof, bearing out ſo far from the land into the water: and therefore to deceiue themſelues, that the way might not ſeeme ſo long, went backward with their tails to the banke, and their heads toward the ſea. They are ware, & know full well that their only riches (for loue of which, men lay wait for them) lieth in their armes and weapons that Nature hath giuen them: king *Iuba* calleth them their hornes; but *Herodotus*, who wrote long before him, and the cuſtome of ſpeech, hath rearmed them much better, teeth. And therefore when they are ſhed and fallen off, either for age, or by ſome caſualtie, the Elephants themſelues hide them within the ground. And this in truth is the only yuory: for all the reſt, yea, and theſe teeth alſo ſo far as lay couered within the fleſh, is of no price, and taken for no better than bone. And yet of late daies, for great ſcarcitie & want of the right teeth, men haue bin glad to cut and ſaw their bones into plates, and make yuorie therof. For hardly can we now come by teeth of any bignes, vnleſſe we haue them out of India. For all the reſt that might be gotten in this part of the world between vs and them, hath bin imploied in ſuperfluities only, and ſerued for wanton toies. You may know yong Elephants by the whitenes of theſe teeth: and a ſpeciall care and regard haue theſe beaſts of them aboue all. They looke to one of them alwaies, that the point be ſharp, and therefore they forbear to occuſe it, leaſt it ſhould bee blunt againſt they come to fight: the other they vſe ordinarily, either to get vp roots out of the earth, or to caſt down any banks or mures that ſtand in their way. When they chance to be enuironed and compaſſed round about with hunters, they ſet formeſt in the rank to be ſeen, thoſe of the heard that haue the leaſt teeth: to the end, that their price might not be thought worth the hazard and venture in chaſe for them. But afterwards, when they ſee the hunters eager, and themſelues ouermatched and weary, they breake them with running againſt the hard trees, and leauing them behind, eſcape by this ranſome as it were, out of their hands.

CHAP. IIII.

¶ *The clemencie of Elephants: their forſight and knowledge of their owne dangers: alſo the fell fierceneſſe of the Tygre.*

A Wonder it is in many of theſe creatures, that they ſhould thus know wherefore they are hunted, and withall take heed & beware of all their dangers. It is ſaid, that if an elephant chance to meet with a man wandering ſimply out of his way in the wilderneſſe, hee will mildly and gently ſet him in the right way again. But if he perceiue a mans freſh footing, before he eſpie the man, he will quake and tremble for feare of being forelaid & ſurpriſed: he wil ſtay

The eighth Booke of

stay from farther following the sent, look about him every way, snuffe and puffe for very anger. Neither will he tread vpon the tract of a mans foot, but dig it out of the earth, and giue it the next Elephant vnto him, and he againe to him that followeth, and so from one to another passeth this intelligence and message as it were, to the vtmost rank behind. Then the whole heard makes a stand, and cast round about to returne backward, and withall put themselues in bartel array: so long continueth that strong virulent smel of mens feet, and runneth through them all, not withstanding for the most part they be not bare but shod. Semblably, the Tigresse also, how fierce and cruell she be to other wilde beasts, & careth not a whit for a very Elephant; if shee happen to haue a sight of a mans footing, presently, by report, carieth away her young whelpes, and is gon. But how commeth she to this knowledge of a man? where saw she him euer before, and is gon. But how commeth she to this knowledge of a man? where saw she him euer before, whom thus she feareth? for surely such wild woods & forests are not much trauelled & frequented by men. Set case, that they may wel wonder at the strange sight and nouelty of their tracts, which are so seldome seen, how know they that they are to be feared? Nay, what should be the reason, that they dread to see a man indeed, being as they are, far bigger, much stronger, and swifter by many degrees than a man? Certes, herein is to be seen the wonderfull worke of Nature, and her mightie power; that the greatest, the most fell and sauage beasts that be, hauing neuer seen that which they ought to feare, should incontinently haue the fence and conceit, why the same is to be feared.

CHAP. V.

¶ The vnderstanding and memorie of Elephants.

The Elephants march alwaies in troups. The eldest of them leadeth the vaward, like a capitaine: and the next to him in age, commeth behind with the conduct of the arrereguard. When they are to passe ouer any riuer, they put formost the least of al their company, for feare, that if the bigger should enter first, they would, as they trod in the channell, make the water to swell and rise, and so cause the fould to be more deepe. Antipater writeth, that K. Antiochus had two Elephants, which he vsed in his wars about all the rest; and famous they were for their surnames, which they knew well enough, and wist when any man called them thereby: and verily, Cato reciting in his Annals the names of the principall capitaine Elephants, hath left in writing, That the Elephant which fought most lustily in the point of the Punick war, had to name Surus, by the same token, that the one of his teeth was gone. When Antiochus on a time would haue founded the fould of a certaine riuer, by putting the Elephants before, Ajax refused to take the water, who otherwise at all times was wont to lead the way. Whereupon the king pronounced with a loud voice, That look which Elephant passed to the other side, he should be the captain and chiefe. Then Patroclus gaue the venture: & for his labor had a rich harnish and caparison giuen him, & was all trapped in siluer (a thing wherein they take most delight) and made besides the soueraigne of all the rest. But the other that was disgraced thus, and had lost his place, would neuer eat any meat after, but died for very shame of such a reprochfull ignominy. For among other qualities, maruellous bashfull they are: for if one of them be ouermatched & vanquished in fight, he wil neuer after abide the voice & braying of the conqueror, but in token of submission, giueth him a turfe of earth, with veruaine or grasse vpon it. Vpon a kind of shamefaced modesty, they neuer are seen to ingender together, but perform that act in some covert & secret corner. They go to rut, the male at 5 yeres of age, the femal not before she is 10 yeres old. And this they do every third yere: and they continue therein fise daies in the yere (as they say) and not aboute: for vpon the sixt day they all to wash themselues ouer in the running riuer: & before they be thus purified, return not to the heard. After they haue taken one to another once, they neuer change: neither fall they out and fight about their femalls, as other creatures do most deadly and mortally. And this is not for want of loue and hor affection that way: for reported it is of one Elephant, that he cast a fancy and was enamoured vpon a wench in Egypt that sold nosegayes & garlands of floures. And lest any man should thinke that hee had no reason thereto, it was no ordinary maiden, but so amiable, as that Aristophanes the excellent Grammmarian, was wonderfully in loue with her. Another there was, so kind and full of loue, that he fanstied a youth in the army of Ptolomeus, that scarce had neuer an haire vpon his face, and so entirely he loued him, that what day soeuer he saw him not, he would forbear his meat

Plinies Naturall History.

A meat, and eat nothing. K. Iuba likewise reporteth also of an Elephant that made court to another woman, who made and sold sweet ointments and perfumes. All these testified their loue and kindnes, by these tokens: joy they would at the sight of them, and looke pleasantly vpon them: make toward them they would (after their rude and homely manner) by all means of flatterie: and especially in this, that they would saue whatsoeuer people cast to them for to eat, and lay the same full kindly in their laps and bosomes. But no maruel it is that they should loue who are so good of memorie. For the same Iuba saith, That an Elephant tooke knowledge and acquaintance of one man in his old age, and after many a yere, who in his youth had bin his ruler and gouernor. He affirmeth also, that they haue by a secret diuine instinct, a certain fence of justice and righteous dealing. For when K. Bacchus meant to be reuenged of 30 Elephants, that he had caused to be bound vnto stakes, and set other 30 to run vpon them, appointing also certain men among to pricke and prouoke them thereto, yet for all that, could not one of them be brought for to execute this butcherie, nor be ministers of anothers crueltie.

CHAP. VI.

¶ When Elephants were first seen in Italy.

The first time that Elephants were seen in Italy, was during the war of K. Pyrrhus, & they called them by the name of *Lucæ boues*, i. Lucane oxen, because they had the first sight of them in the Lucans countrie, and it was in the 472 yere after the cities foundation. But in Rome it was seuen yeres after ere they were seen, and then they were shewed in a triumph. But in the yere 502, a number of them were seen at Rome by occasion of the victorie of L. Metellus Pontifex ouer the Carthaginians: which Elephants were taken in Sicilie. For 142 of them were conueied ouer vpon planks and flat bottomes, which were laied vpon ranks of great tuns, and pipes set thicke one by another. Ferrus saith, that they were caused to fight in the great cirque or shew place, and were killed there with shot of darts and ianelins for want of better counsel, and because they knew not well what to do with them: for neither were they willing to haue them kept and nourished, ne yet to be bestowed vpon any kings. L. Piso saith they were brought out only into the shew place or cirque aforesaid, and for to make them more contemptible were chased round about it by certaine fellows hired thereto, hauing for that purpose certain staues and perches, not pointed with iron, but headed with bals like foiles: But what became of them afterward, those Authours make no mention: who were of opinion that they were not killed.

CHAP. VII.

¶ Their fights and combats.

Much renowned is the fight of one Roman with an Elephant, at what time as Annibal forced those captiues whom he had taken of our men, to skirmish one against another to the vtterance. For the only Roman that remained vnslaine at that vnaturall conflict, he would needs match with an Elephant, and see the combat himseife, assuring him vpon his word, that if he could kil the beatt, he should be dismissed and sent home with life & liberty. So this prisoner entred into single fight with the Elephant, & to the great hearts griefe of the Carthaginians slew him out-right. Aquiball then sent him away indeed according to promise and couenant; but considering better the consequence of this matter; and namely, that if this combat were once by him bruted abroad, the beasts would be lesse regarded, and their seruice in the wars not esteemed; made after him certaine light horsemen to ouertake him vpon the way to cut his throat, so making him sure for telling tales. Their long snout or trunk which the Latins call *Proboscis*, may be easily cut off, as it appeared by experience in the wars against K. Pyrrhus. Penestella writeth, That the first fight of them in Rome, was exhibited in the grand Cirque, during the time that Claudius Pulcher was Edile Curule, when M. Antonius and A. Posthumus were Consuls: in the 650 yere after the citie of Rome was built. In like maner, 20 yeres after, when the Luculli were Ediles Curule, there was represented a combat between bulls and Elephants. Also in the second Consulship of C. Pompeius at the dedication of the temple to Venus Victoresse, 20 of them, or as some write, 17 fought in the great Cirque. In which solemnitie

the Gætulians were set to launce darts and jaelins against them. But among all the rest, one Elephant did wonders: for when his legs and feet were shot and sticke full of darts, he crept vp- on his knees, and neuer staied til he was gotten among the companies of the said Gætulians, where he caught from them their targets and bucklers perforce, flung them aloft into the aire, which as they fell, turned round, as if they had bin trundled by art, & not hurled & thrown with violence by the beasts in their furious anger: and this made a goodly sight, and did great pleasure to the beholders. And as strange a thing as that was, seen in another of them, whose fortune was to be killed out of hand with one shot: for the dart was so driuen, that it entered vnder the eie, and pierced as far as to the vitall parts of the head, euen the ventricles of the brain. Whereupon all the rest at once assaied to break forth and get away, not without a great hurly & trou- ble among the people, notwithstanding they were without the lists, and those set round about with yron grates and bars. [And for this cause *Cæsar* the Dictatour, when afterwards hec was to exhibit it the like shew before the people, cast a ditch round about the place, letting in the water and so made a mote thereof: which prince *Nero* afterwards stopped vp, for to make more room for the knights and men of armes.] But those Elephants of *Pompey* being past all hope of esca- ping and going cleere away, after a most pittifull manner and rufull plight that cannot bee ex- pressed, seemed to make mone vnto the multitude, crauing mercie and pittie, with grievous complaints and lamentations, bewailing their hard state and wofull case: in such sort, that the peo- ples hearts earned again at this piteous sight, and with tears in their eyes, for very compassion, rose vp all at once from beholding this pageant, without regard of the person of *Pompey* that great Generall and Commander, without respect of his magnificence and stately shew, of his munificence and liberality, where he thought to haue woon great applause and honor at their hands; but in lieu thereof fell to cursing of him, and wishing all those plagues and misfortunes to light vpon his head, which soon after infused accordingly. Moreover, *Cæsar* the Dictatour in his third Consulship exhibited another sight of them, and brought forth 20 to maintain skir- mish against 500 footmen: and a second time he set out 20 more, with wooden turrets vpon their backs, containing 60 defendants apiece: and he opposed against them 500 footmen, and as many horse. After all this, *Claudius* and *Nero* the Emperors brought them forth one by one into single fight, with approued, expert, and accomplished fencers, at the end of al the other so- lemnie when they had done their prizes. This beast, by report of all writers, is so gentle to all others that are but weak, and not so strong as himselfe, that if he passe through a flock or heard of smaller cattell, it will with the nose or trunk which ferueth in stead of his hand, remoue and turn aside whatsoeuer beast commeth in his way, for feare he should go ouer them, and so crush and tread vnder his foot any of them, ere it were aware. And neuer do they any hurt, vnlesse they be prouoked thereto. Alwaies walke they by troups together, and worst of all other can they away with wandring alone, but loue company exceeding well. If it fortune that they be inuiro- ned with horfmen, look how many of their fellows be feeble, weary, or wounded, those they take into the mids of their Squadron: and as if there were marshalled and ordered by a Serjeant of a band, or heard the direction of some Generall, so skilfully and as it were with guidance of reason, do they maintain fight by turns, and succeed one after another in their course. The wild sort of them, after they be taken, are sooneft brought to be tame and gentle, with the iuice or decoction of husked barley.

CHAP. VIII.

¶ The manner of taking Elephants:

The Indians are wont to take Elephants in this manner: the gouernor driueth one of them that are tame, into the chafe and forrests, and when he can meet with one of them alone, or single him from the heard, he all to beate the wilde beast till he hath made him wearie, and then he mounteth vpon him & ruleth him as well as the former. In Affrick they catch them in great ditches which they make for that purpose: into which, if one of them chance to wan- der astray from his fellowes, all the rest immediatly come to succour him; they heape together a deale of boughs, they rol down blocks & stones, and whatsoeuer may serue to raise a banke, and with all that euer they can do, labor to plucke him out. Before-time, when they meant to make them tractable, their manner was, by a troupe of horfmen to driue or train them by little & little a long

A a long way in a certain lawn or vally, made by mans hand for the nones, ere they were aware, and when they were inclosed within ditches or bankes, there they would keep them from meat so long, vntil for very hunger they would be glad to come to hand for food: & by this they might know, they were gentle and tame enough to be taken, if they would meekly take a branch of a bow presented and offered vnto them. But now adaies, since they seek after them for their teeths sake, they make no more ado but shoot at their legges, which otherwise naturally are tender e- nough and the softest part of their whole body. The Troglodites, a people bounding vpon Æ- thiopia, who liue only vpon the venison of Elephants flesh, vse to clime trees that be near their walk, and there take a stand: from thence (letting all the heard to passe quietly vnder the trees) they leap down vpon the buttocks of the hinmost: then he that doth this feat, with his left hand laieth fast hold vpon his taile, and sets his feet and legs fast in the flanke of the left side, and so hanging and bending backward with his body, he cutteth the ham-strings of one of his legges with a good keen bil or hatchet that he hath of purpose in his right hand: which done, the Ele- phant beginneth to slack his pace, by reason that one of his legs is wounded: the man then maketh shift to get away and alighteth on foot, and for a farwell he hougheth the sinews likewise of the other ham, and all this doth he in a trice with wonderful agility and nimblenes. Others haue a safer way than this, but it is more subtil and deceitfull: they set or stick in the ground a great way off, mighty great bows ready bent, to hold these fast, they chuse certain tall lusty, and strong fellows, and as many others as sufficient as they, to draw with all their might and maine the said bowes against the other, and so they let flie against the poore Elephants as they passe by, jaelins and bore-spears, as if they shot shafts, and stick them therewith, and so follow them by their bloud. Of these beasts, the femals are much more fearfull than the male kind.

CHAP. IX.

¶ The manner of taming Elephants.

AS furious and raging mad as they be sometime, they are tamed with hunger and stripes: but men had need to haue the help of other Elephants that are tame already, to restraine the vnruely beast with strong chains: of all times, when they go to rut they are most out of order and starke wood; down go the Indian stables and beast stals then, which they ouer- turne with their teeth; and therefore they keepe them from entering into that fit, and separate the femals apart from the males, making their parks and enclosures asunder, as they doe by other beasts. The tamed sort of them serue in the wars, and carry little castles or turrets with armed souldiers, to enter the squadrons and battalions of the enemies: and for the most part, all the seruice in the wars of the East, is performed by them, and they especially determine the quar- rel: these be they that breake the ranks, beare down armed men that are in the way, and stampe them vnder foot. These terrible beasts (as outrageous otherwise as they seeme) are frightened with the least grunting that is of a swine: be they wounded at any time or put into a fright, backe- ward alwaies they go, and do as much mischief to their own side that way, as to their enemies. The African Elephants are afraid of the Indian, and dare not look vpon them; for in truth the Indian Elephants be far bigger.

CHAP. X.

¶ How they breed and bring forth their young: and of their nature otherwise.

THE common sort of men thinke, that they go with young ten yeres: but *Aristotle* saith that they go but two yeares, and that they breed but once and no more in their life, and bring not about one at a time: also that they liue commonly by course of nature 200 yeres, and some of them 300. Their youthful time and strength of age beginneth when they be 60 yeres old: they loue riuers about all things, and lightly ye shall haue them euermore wan- dring about waters; and yet by reason otherwise of their big and vnwealdie bodies, swim they cannot. Of all things they can worst away with cold, and that is it they are most subiect vnto, and feeble greatest inconuenience by: troubled they be also with the collick, and ventosities, as also with the flux of the belly: other maladies they feele not. I find it written in histories, that if they

they drinke oile, the arrows and darts which stick in their bodies wil come forth and fall off : G
but the more that they sweat, the sooner wil they take hold and abide in stil the faster. The eating of earth breedes the consumption in them, vnlesse they feed and chew often therof: they deuoure stones also. As for the trunks and bodies of trees, it is the best meat they haue, & therein take they most delight. If the date trees be too high that they cannot reach the fruit, they will ouerturn them with their forehead, and when they lie along, eat the dates. They chew and eat their meat with their mouth: but they breath, drink, and smell, with their trunk, which not improperly is called their hand. Of all other liuing creatures, they cannot abide a mouse or a rat, and if they perceiue that their prouander lying in the manger, tast and sent neuer so little of them, they refuse it and wil not touch it. They are mightily tormented with paine, if they chance in their drinking to swallow down an horleeche (which worm, I obserue, they begin now to cal, a bloud-sucker:) for so soon as the horleeche hath settled fast in his wind-pipe, he putteth him to intollerable pains. Their hide or skin of their back is most tough & hard; but in the belly, soft & tender: couered their skin is neither with haire nor bristle, no not so much as in their tail, which might serue them in good stead to driue away the busse & troublesome flie (for as vast & huge a beast as he is, the flie hanteth & stingeth him) but ful their skin is of crosse wrinkles lattisewise, & besides that, the smell thereof is able to draw and allure such vermin to it: & therefore when they are laid stretched along, and perceiue the flies by whole swarms settled on their skin, suddenly they draw those cranies and creuises together close, and so crush them all to death. This serues them in stead of taile, main, and long haire. Their teeth beare a very high price, and they yeeld the matter of greatest request, and most commendable, for to make the statues and images of the gods: but such is the superfluity and excesse of men, that they haue deuised another thing in them to commend, for they find forsooth a special dainty tast in the hard callous substance of that which they cal their hand: for no other reason (I beleue) but because they haue a conceit that they eat yuorie, when they chew this gristle of their trunk. In temples are to be seen Elephants teeth of the greatest size: howbeit in the marches of Africke where it confineth vpon Æthiopia, they make of yuory the very principals and corner posts of their houses: also with the Elephants tooth they make mounds & pales both to inclose their grounds, and also to keep in their beasts within park, if it be true that *Polybius* reporteth, from the testimony of king *Guluffa*.

CHAP. XI.

¶ Where the Elephants are bred: how the Dragons and they disagree.

Elephants breed in that part of Africke which lieth beyond the desarts and wildernesse of the Syrtes: also in Mauritania: they are found also amongst the Æthyopians and Troglodytes, as hath beene said: but India bringeth forth the biggest: as also the dragons that are continually at variance with them, & euermore fighting, and those of such greatnesse, that they can easily clasp and wind round about the Elephants, and withall tye them fast with a knot. In this conflict they die, both the one and the other: the Elephant he falls downe dead as conquered, and with his heavy weight crusheth and squeaseth the dragon that is wound and wretched about him.

CHAP. XII.

¶ The wittinesse and policie in these creatures.

Underfall is the wit and subtilty that dumbe creatures haue, and how they shift for themselves and annoy their enemies, which is the only difficulty that they haue to arise & grow to so great an heighth and excesse bignes. The dragon therefore espying the Elephant when he goeth to reliefe, assaileth him from an high tree and launceth himselfe vpon him; but the Elephant knowing well enough he is not able to withstand his windings & knittings about him, seeketh to come close to some trees or hard rocks, and so for to crush and squise the dragon between him and them: the dragons ware hereof, entangle and snarle his feet & legs first with their taile: the Elephants on the other side, vndo those knots with their trunk as with a hand: but to preuent that againe, the Dragons put in their heads into their snout, and so

A so stop their wind, and withall fret and gnaw the tenderest parts they find there. Now in case these two mortall enemies chance to re-incounter on the way, they bristle & bridle one against another, and addresse themselves to fight; but the chiefe thing the dragons make at is the eye, whereby it comes to passe, that many times the Elephants are found blinde, pined for hunger, and worne away, and after much languishing, for very anguish and sorrow die of their venome. What reason should a man alledge of this so mortall warre betweene them, if it be not a very sport of Nature, and pleasure that she takes, in matching these two so great enemies together, and so euen and equall in each respect? But some report this mutuall war between them after another sort, and that the occasion thereof ariseth from a naturall cause: for (say they) the Elephants blood is exceeding cold, and therefore the dragons be wonderful desirous thereof to refresh and coole themselves therewith during the parching hot season of the yeare. And to this purpose they ly vnder the water, waiting their time to take the Elephants at a vantage when they are drinking; where they catch fast hold first of their trunk, and they haue not so soone clasped and intangled it with their taile, but they set their venomous teeth in the Elephants eare (the onely part of all their body which they cannot reach vnto with their trunk) and so bite it hard: now these dragons are so big withall, that they are able to receiue all the elephants blood: thus are they sucked dry vntill they fall down dead: and the dragons also, drunke with their blood, are squeesed vnder them, and so dy together.

CHAP. XIII.

¶ Of Dragons.

C IN Æthiopia there be as great dragons bred as in India, namely 20 cubits long: but I maruell much at this one thing, that king *Tuba* should think they are crested. They are bred most in a country of Æthiopia where the *Asachai* inhabit. It is reported, that vpon their coast they are inwrapped foure or fise of them one within another, like to a hurdle or lattise worke, and thus passe the seas to find out better pasturage in Arabia, cutting the waues, and bearing their heads aloft, which serue them in stead of sailes.

CHAP. XIV.

¶ Of monstrous great Serpents, and namely of those called Boæ.

D M *Egasthes* writeth, that there be serpents among the Indians growne to that bignesse, that they are able to swallow stags or bulls all whole. *Metrodorus* saith, that about the riuer *Rhyndacus* in Pontus, there be serpents that catch and deuoure the fowles of the aire, be they neuer so swift winged, and soare they neuer so high. Well knowne it is, that *Attilius Regulus*, Generall vnder the Romans during the wars against the Carthaginians, assailed a Serpent neere the riuer *Bagrada*, which caried in length 120 foot; and before hee could conquer him was driuen to discharge vpon him arrowes, quarrels, stones, bullets, and such like shot, out of brakes, flings, and other engins of artillery, as if he had giuen the assault to some strong warlike towne: the prooffe whereof was to be seen by the marks remaining in his skin and chawes, which vntill the war of *Numantia* remained in a temple or conspicuous place of Rome. And this is the more credible, for that we see in Italy other serpents named Boæ, so big and huge, that in the daies of the Emperor *Claudius* there was one of them killed in the Vatican, within the belly whereof there was found an infant all whole. This serpent liueth at the first of kins milk, and then of takes the name Boæ. As for other beasts which ordinarily of late are brought from all parts into Italy, and oftentimes haue there been seen, needlesse it is for me to describe their formes in particular curiously.

CHAP. XV.

¶ Of Scythian beasts, and those which are bred in the North parts.

V Ery few sauge beasts are ingendred in Scythia for want of trees & pasturage. Few likewise in Germany bordering vpon it. Howbeit that country brings forth certaine kindes of goodly great wild beests: to wit, the *Bifontes*, mained with a collar like Lions: and the *Vri*,

he beateth the ground with his taile: when he groweth into greater heats, he flappeth and jerketh his flanks and sides withall, as it were to quicken himselfe, and stir vp his angry humour. His maine strength lieth in his brest: hee maketh not a wound (whether it be by lash of taile, scratch of claw, or print of tooth) but the blood that followeth is black. When his belly is full all his anger is past, and he doth no more harme. His generositie and magnanimitie he shewes most in his dangers: which courage of his appeareth not only herein, that he seems to despise all shot of darts against him, defending himselfe a long time onely with the terrible aspect of his countenance, protesting as it were that he is vnwilling to deale, vnlesse he be forced thereto in his owne defence, *i. se defendendo*, and at length maketh head again, not as compelled or driven thereto for any perill that hee feeth, but angered at their folly that assaile or set vpon him: but herein also is seen rather his noble heart and courage, That be there neuer so many hounds and hunters following after him, so long as he is in the open plains where he may be scene, hee maketh semblance as though he contemned both dog and man, dismarching and retiring with honour, and otherwhiles seeming in his retreat to turne again and make head: but hauing gained the thickets and woods, and gotten into the forrests out of sight, then he skuds away, then he runneth amain for life, as knowing full well, that the trees and bushes hide him, that his shamefull dislodging and flight is not then espied. When hee chafeth and followeth after other beasts he goeth alwaies saltant or rampant; which he neuer vseth to do when he is chased in fight, but is only passant. If he chance to be wounded, he hath a marvellous eye to mark the party that did it, and be the hunters neuer so many in number, vpon him he runneth only. As for him that hath let fly a dart at him, and yet missed his marke and done no hurt to him, if he chance to catch him, he all to touzeth, shaketh, tosseth, and turneth him lying along at his feet, but doth him no harme besides. When the Lionesse fighteth for her yong whelps, by report, she setteth her eyes wistly and entirely vpon the ground, because shee would not be affrighted at the sight of the chafing stauies of the hunters. Lions are nothing at all crafty and fraudulent, neither be they suspicious: they neuer look askew, but alwaies cast their eye directly forward, and they loue not that any man should in that sort looke side-long vpon them. It is constantly beleueed, that when they ly a dying they bite the earth, & in their very death shed teares. This creature, so noble as hee is, and withall so cruell and fell, trembleth and quaketh to heare the noise of cart-wheeles, or to see them turne about; nay hee cannot abide of all things Chariots when they be void and empty: frighted hee is with the cockes combe, and his crowing much more, but most of all with the sight of fire. The Lion is neuer sicke but of the peeuishnesse of his stomacke, loathing all meat: and then the way to cure him is to ty vnto him certaine shee Apes, which with their wanton mocking and making mowes at him, may moue his patience, and driue him for the very indignitie of their malapert fauincesse, into a fit of madnesse; and then so soone as he hath tasted their blood he is perfectly wel again: and this is the only help.

Scævola the son of *Publius* was the first at Rome that in his Curule *Ædileship* exhibited a fight and combat of many Lions together, to delight the people: but *L. Sylla*, who was afterward Dictator, was the first of all others that in his Pretorship represented a shew of 100 lions with maines and collars of haire: and after him, *Pompey* the Great shewed 600 of them fighting in the grand Cirque, whereof 315 were male Lions with mane. And *Cæsar* Dictator brought 400 into the shew-place. The taking of them in old time was a very hard piece of worke, and that was commonly in pit-falls: but in the Emperor *Claudius* his daies it chanced, that a shepherd or heardsmen who came out of *Gætulia* taught the manner of catching them: a thing otherwise that would haue bene thought incredible, and altogether vnbeleeving the name and honour of so goodly a beast. This *Getulian*, I say, fortun'd to encounter a Lion, and when he was violently assailed by him, made no more ado but threw his mandilion or cassocke full vpon his eyes. This feat or cast of his was soone after practised in the open shew-place, in such sort that a man would hardly haue beleueed but hee that saw it, that so furious a beast should so easily be quailed, and daunted so soone as euer hee felt his head couered, were the things neuer so light, making no resistance, but suffering one to do what hee would with him, euen to binde him fast, as if in very truth all his vigour and spirit rested in his eyes. Lesse therefore is it to be maruelled at, that *Lyfsmachus* strangled a Lion, when as by the commandement of *Alexander* the Great he was shut vp alone together with him. The first man that euer yoked them a Rome, and made them to draw in a chariot, was *M. Antonius*. And verily it was in the

- A the time of ciuill warre, after the battell fought in the plaines of *Pharsalia*; a shrewd and vnhappy presage of the future euent, and namely for men of an high spirit & braue mind in those daies, to whom this prodigious sight did prognosticate the yoke of subiection: for what should I say how *Anthony* rode in that wife with the Courtesan *Cytheris* a common Adresse in Interludes vpon the stage? To see such a sight was a monstrous spectacle, that passed all the calamities of that time. It is reported that *Hanno* (one of the noblest Carthaginians that euer were) was the first man that durst handle a Lion with his bare hand, and shew him gentle and tame, to follow him all the city ouer in a slippe like a dog. But this deuice and trick of his turned to his great damage and vtter vndoing: for the Carthaginians hereupon laid this ground, that *Hanno*, a man of such a gift, so witty and inuentiue of all deuises, would be able to persuaade the people to whatsoeuer his minde stood; and that it was a dangerous and ticklish point, to put the liberty of so great a state as Carthage was, into the hands and managing of him who could handle and tame the furious violence of so sauage a beast, and thereupon condemned and banished him. Moreouer we find in histories many examples also of their clemencie and gentleness, seen vpon diuers casuall occasions. *Mentor* the Syracusan fortun'd in Syria to meet with a Lion, who after an humble maner in token of obedience and submission, seemed to tumble and wallow before him: he astonied for feare started backe and began to fly; but the wild beast followed him still, and was ready at euery turne to present himselfe before him, licking the very tracks of his foot-steps as he went, in flattering manner, as if he would make loue vnto him. *Mentor* at length was ware that the Lion had a wound in his foot, and that it swelled therewith: whereupon he gently plucked out the spill of wood that had gotten into it, and so eased the beast of his paine. This accident is for a memoriall represented in a picture at *Syracusa*. Semblably, *Elpis* a Samian being arriued and landed in *Africk*, chanced to espy neer the shore a Lion gaping wide, and seeming afar off to whet his teeth at him in menacing wise: he fled apace to take a tree, calling vpon god *Bacchus* to help him (for then commonly wee fall to our prayers when we see little or no hope of other helpe:) but the Lion stopt him not in his flight, albeit he could haue crossed the way well enough, but laying himselfe downe at the tree root, with that open mouth of his wherewith he had skared the man, made signes to moue pittie and compassion. Now so it was, that the beast hauing lately fed greedily, had gotten a sharp bone within his teeth, that put him to exceeding paine: besides that, hee was almost famished: and he looking pittifully vp to the man, shewed how he was punished himselfe among those verie weapons wherewith he was wont to anoy others, and after a sort with dumb and mute prayers besought his help. *Elpis* auied him well a pretty while; and besides that hee was not very forward to venture vpon the wilde beast, he staid the longer and made the lesse hast, while he considered rather this strange and miraculous accident, than otherwise greatly feared. At last he comes downe from the tree and plucks out the bone, while the Lion held his mouth handfomly to him, and exposed himselfe to his helpfull hand as fitly as he possibly could. In requitall of which good turne, it is said, that so long as this ship of his lay there at anchor, the Lion furnished him and his company with good store of venison ready killed to his hand. And vpon this occasion *Elpis* after his returne dedicated a temple to *Bacchus*: which vpon this reason the Greeks called *ἑλπίδος ἱερὸν*, *i. of gaping Bacchus*: or *παρθενίου ἱερὸν*, *i. the chappell of Bacchus the Sauour*. Can we maruell any more from henceforth, that wild beasts should marke and know the footing of a man, seeing that in their extremities and necessities they haue recourse to him alone for hope of succour? Why went not they to other creatures? or who taught them that the hand of man was able to cure them? vnlesse this be the reason, that grieve, anguish, and extreme perill forceth euen sauage beasts to seeke all means of help and reliefe.

CHAP. XVII.

Of Panthers.

- D**emetrius the philosopher, so wel seen into the speculation of Natures works, & the causes thereof, makes mention of as memorable a case as the former, touching a Panther: for as he saith there was a Panther desirous to meet with a man, & therefore lay in the midst of an high-way vntill some passenger should come by, and suddenly was espied by the father of

of *Philinus* the Philosopher, who traualled that way. The man (for feare) began to retire and go backe againe, but the wild beast kept a tumbling and vauring all about him; doubtlesse and by all apparance after a flattering sort, as if it would haue had somewhat; and such a tossing and tormenting of it selfe she made, so piteously, that it might soone be seene in what griefe and pain the Panther was. The poore beast had but lately kindled, and her young whelps were salne into a ditch, as farre off: well, the first point that the man shewed of pittie and commiseration was, not to be affraid; and the next was, to haue regard and care of her: follow he did the Panther, as she seemed to train and draw him by his garment (which with her claws shee tooke hold of daintily) vntill they were come to the pit or ditch aboue said. So soon then as he knew the cause of her griefe and sorrow, and withall what might be the reward of his courtesie, euen as much as his life came to, he drew forth her little ones that were fallen into the said pit: which don, she and her whelps together leaping and shewing gambols for ioy, accompanied him, and through the wilderness directed him vntill he was gotten forth. So as it appeared in her, that shee was thankfull vnto him, and requited his kindnesse, albeit there passed no couenant nor promise between them of any such recompence: a rare example to be found euen among men. This story and such like giue great colour of truth to that which *Democritus* reporteth, namely, that *Thos* in Arcadia saued his life by means of a dragon. This *Thos* being but a very childe, had loued this dragon when he was but yong, very well, and nourished him: but at last, being somewhat fearfull of his nature, and not well knowing his qualities, and fearing withall the bignes that now he was growne vnto, had carried him into the mountains and detarts: wherein it fortuneth that he was afterward set vpon and inuironed by thees: whereupon he cried out, and the dragon knowing his voice, came forth and rescued him. As for babes and infants cast forth to perish, and sustained by the milke of wilde beasts, like as *Romulus* and *Remus* our first founders, who were suckled by a she wolfe; such things in mine opinion are in all reason to be attributed more to fortune and fatall destinies, than to the nature of those beasts. The Panthers and Tygers are in a maner the only beasts (for the varietie of spotted skins and * fures which they yeeld) in great request, and commendable: for other beasts haue each one a proper colour of their owne, according to their kind: Lions there be all blacke, but they are found in Syria only. The ground of the Panthers skin is white, beset all ouer with little black spots like eies. It is said, that all foure-footed beasts are wonderfully delighted and enticed by the smell of Panthers; but their hideous looke and crabbed countenance, which they bewray by shewing their heads, skareth them as much againe: wherefore their maner is to hide their heads, and hauing trained other beasts within their reach by their sweet saour, they fly vpon them and worrie them. Some report, that they haue one marke on their shoulder resembling the Moone, growing and decreasing as she doth, sometime shewing a full compasse, and otherwhiles hollowed and pointed with tips like hornes. In all this kind and race of wild beasts now adaies they call the male * *Varie* and *Pardi*, and great abundance there is of them in Africke and Syria. Some there be againe that make no other difference betweene the *Luzernes* and *Leopards*, and these Panthers, but only this, that the Panthers are white: and as yet I know no other marks to descry them by. There passed an old Act and Ordinance of the Senate, forbidding expresly that any Panthers of Africke should be brought into Italy. Against this edict, *Cn. Aufidius* a Tribune of the commons put vp another bill vnto the people; and granted it was, That for the solemnitie of the games *Circenses* they might be brought ouer. *Scaurus* was the first man who in his Edileship exhibited a shew vnto the people of 150 *Luzernes* together. After him *Pompey* the Great brought forth 410. The Emperor *Augustus* 420: who also in the yere that *Q. Tubero* and *Fabius Maximus* were Consuls together (vpon the 4 day before the Nones of May, at the dedication of the Theatre of *Marcellus*) was the first of all others that shewed a tame Tyger within a cage: but the Emperor *Claudius* foure at once.

CHAP. XVIII.

¶ Of the Tyger and his nature: of Camels, Chamelopardales, and when they were first seen at Rome.

Tygers are bred in Hircania and India: this beast is most dreadfull for incomparable swiftnesse, and most of all seen it is in the taking of her yong: for her litter (whereof there is a great

*1. The Luzernes or Libards.

*2. Luzernes or Libards.

A great number) by the hunters is stolne and caried away at once, vpon a most swift horse for the purpose; lying in wait to espy when the dam is abroad: and shiffteth this booty from one fresh horse to another, riding away vpon the spur as hard as they can. But when the Tygresse comes and finds her den & nest empty (for the male Tygre hath no care nor regard at all of the yong) she runs on end after her yong ones, following those that caried them away, by the sent of their horse footing. They perceiuing the Tygresse to approach, by the noise she maketh, let fall or cast from them one of her whelps: vp she taketh it in her mouth, and away she runneth toward her den, swifter for the burthen that she carrieth. And presently she setteth out again, followeth the quest after her fawnes, and ouertaketh the Hunter that had them away. Thus runneth she to and fro, vntill she see that they be imbarqued and gone; and then for very anger that she hath not sped of her purpose, shee rageth vpon the shore and the sands for the losse of her fawnes.

As for Camels, they are nourished in the Levant or East parts among other heardes of great cattell: two kindes there be of them, the *Bactrians* and the *Arabick*: differing herein, that the *Bactrians* haue two bunches vpon their backs; the other but one apiece there, but they haue another in their brest, wherupon they rest and ly. Both sorts want the vpper row of teeth in their mouthes, like as bulls and kine. In those parts from whence they come they serue all to carry packs like labouring horses, and are put to seruice also in the wars, and are backed of horsemen: their swiftnesse is comparable to that of horses; they grow to a iust measure, and exceed not a certaine ordinary strength. The Camell in his traueilling will not goe a iot farther than his ordinary journey; nether will hee carry more than his accustomed and vsuall load. Naturally they doe hate horses. They can abide to be foure daies together without drinke: and when they drinke or meet with water, they fill their skin full enough to serue both for the time past and to come: but before they drinke they must trample with their feet to raise mud and sand, and so trouble the water, otherwise they take no pleasure in drinking. They liue commonly fifty yeares, and some of them an hundred. These creatures also otherwhile fall to be mad, so much as it is. Moreouer, they haue a deuice to splay euen the very females, to make them fit for the warres; for if they be not couered they become the stronger and more courageous.

Two other kinds of beasts there be that resemble in some sort the Camels: the one is called of the *Aethiopians*, the *Nabis*, necked like an horse, for leg and hooft not vnlike the *boeuf*, headed directly like a Camell, beset with white spots vpon a red ground, wherupon it taketh the name of *Camelopardalus*: and the first time that it was seen at Rome, was in the games *Circenses*, set out by *Cesar* Dictator. Since which time he comes now and then to Rome, to be looked vpon more for sight, than for any wild nature that hee hath: wherupon some call her the sauage Sheepe.

CHAP. XIX.

¶ Of the Chaus and Cephus.

THE *Hinde*-wolfe, which some call *Chaus*, and the *Gaules* were wont to name *Rhaphius*, resembling in some sort a Wolfe with *Leopards* spots, were shewed first in the solemnities of the games and plaies exhibited by *Cn. Pompeius* the Great. He also brought out of *Aethyopia* other beasts named *Cephi*, *i. Semivulpes*, whose forefeet were like to mens hands, and the hinde feet and legs like those of a man. He was neuer seen afterward at Rome.

CHAP. XX.

¶ Of the Rhinoceros.

IN the same solemnities of *Pompey*, as many times else was shewed a *Rhinoceros*, with one horne and no more, and the same in his snout or muzzle. This is a second enemy by nature the Elephant: hee flieth that horne of his against hard stones, making it sharpe against he should fight; and in his conflict with the Elephant he layes principally at his belly, knowing it to be more tender than the rest. He is full as long as he, his legs are much shorter, and of the box colour.

T

CHAP.

¶ *Lyces or Onces, and Marmozets or Apes, called Sphinges : of Crocutes, Monkeys, English banes, Leocrocutes, Eale : Ethiopian bulls, the Mantichore and Lycornes : of the serpents called Catoblepes, and the Basiliske.*

ONces are common, so are Marmozets, with a browne dusky haire, hauing dugs in their brest. Ethiopia breedeth them, like as many other monstrous beasts, to wit, horses with wings, and armed with hornes, which they call Pegasi. Also the Crocutes [a kind of mawg] ingendred betwixt a dog and a Wolfe: these are able to craue with their teeth all fine dogs] ingendred betwixt a dog and a Wolfe: these are able to craue with their teeth all they can come by: and a thing is no sooner downe their swallow, and got into their stomacke, but presently they digest it. Moreouer, the Cercopitheci, i. Monkeys with black heads, otherwise haired like Affes, differing from other Apes in their cry. The Indians haue certain boeufs with one horne, and others with 3. Also the Leocrocutes, a most swift beast, as big almost as an he Ass, legged like an Hart, with a necke, taile, and brest of a Lion, headed like these grayes or Badgers, with a clouen foot in twaine: the slit of his mouth reacheth to his eares, in stead of teeth an entire whole bone. They report that this beast feigneth a mans voice. They haue also among them another beast named Eale, for bignes equall to the riuier-horse, tailed like an Elephant, either black or reddish tawny of colour: his mandibles or chawes resemble those of the Bore, he hath hornes aboue a cubit long, which he can stir or moue as he list: for being in fight he can set them both or one of them as he will himselfe, altering them euery way, one while streight forward to offend, otherwhiles bending byas, as he hath reason to nort or push toward, or auoid anemie. But the most fell and cruell of all others of that country be the wilde bulls of the Forrest, greater than our common field bulls, most swift, of colour brended, their eies gray or blewish, their haire growing contrary, their mouth wide and reaching to their eares: their hornes likewise hard by, moueable; their hide as hard as a flint, checking the dent of any weapon whatsoeuer, and cannot be pierced: all other wilde beasts they chase and hunt, themselves cannot be taken but in pit-falls: in this their wildnesse and rage they dy, & neuer become tame. *Ctesias* writeth, that in Ethiopia likewise there is a beast, which he calls Mantichora, hauing three ranks of teeth, which when they meet together, are let in one within another like the teeth of combs, with the face and eares of a man, with red eies, of colour sanguine, bodied like a Lion, and hauing a taile armed with a sting like a Scorpion: his voice resembles the noise of a flute and trumpet sounded together: very swift he is, and mans flesh of all other he chiefly desireth. In India there be found boeufs whole hoofed, with single hornes; also a wilde beast named Axis [as some thinke a muske cat] with a skin like a sawne or hind-calf, howbeit marked with more and whiter spots. This beast is consecrated to *Bacchus*, and vnder his protection. The Orsians of India hunt Apes, and take a number of them white all ouer. But the most fell and furious beast of all other is the Licorne or Monoceros: his body resembles a horse, his head a stag, his feet an Elephant, his taile a bore; he lowereth after an hideous manner, one black horne he hath in the mids of his forehead, bearing out two cubits in length: by report, this wilde beast cannot possibly be caught aliue. Among the Hesperian Ethiopians there is a fountain named Nigris, the head (as many haue thought) of the riuier Nilus, and good reason there is for it, alleged by vs before: neere which spring keepeth a wilde beast called Catoblepes, little of body otherwise, heauy also and slow in all his limnes besides, but his head only is so great that his body is hardly able to beare it, he alwaies carrieth it downe to the earth, for if hee did not so, hee were able to kill all mankind; for there is not one that looketh vpon his eies, but he dies presently. The like propertie hath the serpent called a Basiliske: bred it is in the prouince Cyrenaica, and is not aboue twelue fingers bredth long: a white spot like a starre it carrieth on the head, and sets it out like a coronet or diadem: if he but hisse once, no other serpents dare come neere: hee creepeth not winding and crawling byas as other serpents doe, with one part of the body driuing, the other forward, but goeth vpright and aloft from the ground with one halfe part of his body: he killeth all trees and shrubs not onely that he toucheth, but also that hee breatheth vpon: as for grasse and herbes, those he findgeth and burneth vp, yea, and breaketh stones in sunder: so venomous and deadly he is. It is receiued for a truth, that one of them on a time

A time was killed with a launce by an horsman from his horse back, but the poison was so strong that went from his body along the staffe, as it killed both horse and man: and yet a silly weazle hath a deadly power to kill this monstrous serpent, as pernicious as it is [for many kings haue been desirous to see the experience thereof, and the manner how he is killed.] See how Nature hath delighted to match euery thing in the world with a concurrent. The manner is, to cast these weazles into the hole and canies where they lye, (and easie they be to know by the stinking sent of the place about them:) they are not so soone within, but they overcome them with their strong smell, but they die themselves withall; and so Nature for her pleasure hath the combat dispatched.

IT is commonly thought likewise in Italy, that the eye sight of wolues is hurtful; in so much, as if they see a man before hee espy him, they cause him to lose his voice for the time. They that be bred in Affrick and Egypt, are but little, and withal nothing lively, but without spirit. In the colder clime, they be more cruell and eger. That men may be transformed into wolues, and restored againe to their former shape, we must confidently beleene to be a lowd lie, or else giue credit to all those tales which we haue for so many ages found to be meere fables. But how this opinion grew first, & is come to be so firmly settled, that when we would giue men the most opprobrious words of defiance that we can, we terme them **Versipelles*, I thinke it not much amisse in a word to shew. *Euanthes* (a writer among the Greekes, of good account and authority) reporteth, that he found among the records of the Arcadians, That in Arcadia there was a certaine house and race of the *Anai*, out of which one euermore must needs be transformed into a wolfe: and when they of that family haue cast lots who it shall be, they vse to accompany the party vpon whom the lot is fallne, to a certaine meere or poole in that country: when he is thither come, they turne him naked out of all his clothes, which they hang vpon an oke thereby: then he swimmeth ouer the said lake to the other side, and being entered into the wilderness, is presently transfigured and turned into a wolfe, and so keepeth company with his like of that kind for nine yeeres space: during which time, (if he forbear all the while to eat mans flesh) he returneth againe to the same poole or pond, and being swomme over it, receiueh his former shape againe of a man, saue only that he shall look nine yeeres elder than before. *Fabius* addeth one thing more and saith, That he findeth againe the same apparell that was hung vp in the oake aforesaid. A wonder it is to see, to what passe these Greekes are come in their credulity: there is not so shamelesse a lye, but it findeth one or other of them to uphold and maintaine it. And therefore *Agriopas*, who wrote the *Olympionica*, telleth a tale of one *Damianetus Parrhasius*, That he vpon a time at a certain solemn sacrifice (which the Arcadians celebrated in the honour of *Iupiter Lycaeus*) tasted of the inwards of a child that was killed for a sacrifice, according to the manner of the Arcadians (which euen was to shed mans blood in their diuine seruice) and so was turned into a wolfe: and the same man ten yeeres after, became a man againe, was present at the exercise of publick games, wrestled, did his deuoir, and went away with victory home againe from Olympia.ouer and besides, it is commonly thought and verily beleened, that in the taile of this beast, there is a little string or haire that is effectually to procure loue, and that when he is taken at any time, he casteth it away from him, for that it is of no force and vertue vlesse it be taken from him whiles he liues. He goeth to rut in the whole yere not aboue twelue dayes. When he is very hungry and can get no other prey, he feedeth vpon the earth. In the case of presages and fore-tokens of things to come, this is obserued. That if men see a wolfe abroad, cut his way and turne to their right hand, it is good; but if his mouth be full when he doth so, there is not a better signe or more lucky in the world againe.

F There be of this kind that are called Hart-wolues, such as we said that *Pompey* shewed in the grand Cirque, brought out of Fraunce. This beast (they say) be he neuer so hungry when hee is eating, if he chauce to look backe, forgetteth his meat, flinketh away, and seeketh for some other prey.

CHAP. XXIII.

¶ Of Serpents.

AS touching serpents we see it ordinary, that for the most part they are of the colour of the earth, wherein they lie hid: and an infinite number of sorts there be of them. The serpent Ceraſtes hath many times foure small hornes, ſtanding out double; with mouing whereof he amuſeth the birds, and traineth them vnto her for to catch them, hiding all the reſt of her body.

Amphisbæna hath two heads as it were, namely one at the taile; as if ſhe were not hurtfull enough to caſt her poyſon at one mouth only. Some are ſcaled, others ſpotted and painted, but generally the venom of them all is deadly. There be of them that from the boughes of trees ſhoot and launce themſelues: in ſuch manner, as that we are not onely to take heed of ſerpents as they go and glide vpon the ground, but alſo to looke vnto them that fly as a dart or arrow ſent out of an engin. The Aſpides ſwell about the necke when they purpoſe to ſting: and no remedie is there for them that are ſtung and bitten by them, vnleſſe the wounded parts be cut off preſently. This peſtilent creature, as venomous as he is, hath one point yet of vnderſtanding or affection rather; you ſhall not ſee them wandering abroad but two and two together, male and female, as if they were yoked together: and unneeth or not at all can they liue alone without their mate, ſo that if one of them be killed, it is incredible how the other ſeeks to be reuenged: it purſueth the murderer, and knoweth him again among a number of people, be they neuer ſo many: him it courſeth, and layeth for his life; norwithſtanding what difficulties ſoeuer he breaketh through all, be it neuer ſo far thither, and nothing may impeach this reuenging humor, vnleſſe ſome riuer be between to keep it backe, or that the party make ſpeed to eſcape away in great haſte. And I aſſure you, I am not able to ſay, whether Nature hath bin more free and prodigall in ſending among vs ſuch noiſome things, or giuing vs remedies againe for them. For to begin withall, ſhe hath afforded to this creature but a darke ſight, and dim eyes, and thoſe not placed in the forepart of the head, to ſee forward and directly, but ſet in the very temples. And hereof it is, that theſe ſerpents are raiſed oftner by their hearing than ſight.

CHAP. XXIV.

¶ Of the Rat of India called Ichneumon.

BEſides the foreſaid infirmities, there is mortall war between them and the Ichneumones or Rats of India. A beaſt this is well knowne to the Aſpis, in this regard eſpecially, that it is bred likewiſe in the ſame Egypt. The manner of this Ichneumon is, to wallow oft times within the mud, and then to dry it ſelfe againſt the Sun: and when he hath thus armed himſelf as it were with many coats hardned in this manner, he goeth forth to combat with the Aſpis. In fight he ſets vp his taile, and whips about turning his taile to the enemy, and therein latheth and receiueth all the ſtrokes of the Aſpis, and taketh no harme thereby: and ſo long he maintaineth a deſenſive battell, vntill he eſpy a time, turning his head a ſide, that hee may catch the Aſpis by the throat, and throttle it. And not content thus to haue vanquiſhed this enemy, he addreſſeth himſelfe to the conflict with another, as hurtfull euery way & dangerous as the former.

CHAP. XXV.

¶ Of the Crocodile, Scinke, and Riuer-Horſe.

THe riuer Nilus nourisheth the Crocodile; a venomous creature, foure footed, as dangerous on water as land. This beaſt alone, of all other that keepe the land, hath no uſe of a tongue; he only moueth the vpper jaw or mandible, wherewith he biteth hard: and otherwiſe terrible he is, by reaſon of the courſe and ranke of his teeth, which cloſe one within another, as if two combs grew together. Ordinarily he is aboute eightene cubits in length. The female layeth eggs as big as geefe do, and ſitteth euer vpon them out of the water: for a certaine naturall foreknowledge ſhe hath, how far the riuer Nilus will that yeare riſe when he is at the higheſt,

A higheſt and without it will ſhee be ſure to ſit. There is not another creature againe in the world, that of a ſmaller beginning, groweth to a bigger quantity. His feet be armed with claws for offence, and his ſkin ſo hard, that it will abide any injury whatſoeuer, and not be pierced. All the day time the Crocodile keepeth vpon the land, but he paſſeth the night in the water: and in good regard of the ſeaſon he doth the one and the other. When he hath filled his belly with fiſhes, he lieth to ſleep vpon the ſands in the ſhore: and for that he is a great and greedie deuourer, ſomewhat of the meat ſticketh euermore between his teeth. In regard whereof cometh the wren, a little bird called there Trochilos, and the king of birds in Italy: and ſhee for her viſuals ſake, hoppeth firſt about his mouth, falleth to pecking or picking it with her little neb or bill, and ſo forward to the teeth, which he cleaſeth, and all to make him gap. Then getteth ſhee within his mouth, which he openeth the wider, by reaſon that he taketh ſo great delight in this her ſcraping and ſcouring of his teeth and chaws. Now when he is lulled as it were faſt aſleep with this pleaſure and contentment of his: the rat of India, or Ichneumon aboueſaid ſpieth his vantage, and ſeeing him lye thus broad gaping, whippeth into his mouth, and ſhooteth himſelfe downe his throat as quicke as an arrow, and then gnaweth his bowels, eateth an hole through his belly, and ſo killeth him.

Within the riuer Nilus there breeds another Serpent called Scincos, like in forme and proportion ſomewhat to the Crocodile, but not ſo big as the Ichneumon: the fleſh whereof ſerueth for a ſingular Antidote or countre-poilon; as alſo for to prouoke the heat of luſt in men.

CBut to returne againe to the Crocodile: the miſchiefe that he doth is ſo great, that Nature is not content to haue giuen him one mortal enemy & no more; & therefore the dolphins alſo enter the riuer Nilus in deſpight of the Crocodiles, that take themſelues for kings there, as if this riuer were their peculiar kingdome: but ſeeing they be otherwiſe inferior to the Crocodiles in ſtrength, who alwaies driue them away from preiding or feeding there, they deuife to ouermatch him in ſlie craft and ſubtilty, and ſo kill him. And in truth they haue certain fins or wings as it were vpon their backe, as trenchant & keene as kniues, properly made as it were, for this porpoſe. For ſurely all creatures are herein naturally very ſkilfull and cunning, to know not only their owne good, and what is for them, but alſo what may hurt and annoy their enemies. Ware they be what offenſiue weapons they haue, and of what force they are: they are not ignorant of ſit occasions and opportunities to take their vantage, ne yet of the weak parts of their occurrents, by which they may aſſaile and conquer them the ſooner. Thus the Dolphins knowing full well, that the ſkin of the Crocodiles belly is thin and ſoft, make as though they were afraid of them as he comes, and ſo diue vnder the water, vntill he be gotten vnder his belly, & then punch and cut it with the foreſaid ſharp-pointed finnes. Moreover, there is a kind of people that cary a deadly hatred to the Crocodile, and they be called Tentyrites, of a certaine Iſle euen within Nilus, which they inhabite. The men are but ſmall of ſtature, but in this quarrell againſt the Crocodiles, they haue hearts of Lions, and it is wondrous to ſee how reſolute and courageous they are in this behalfe. Indeed, this Crocodile is a terrible beaſt to them that ſlie from him: but contrary, let men purſue him or make head againe, he runnes away moſt cowardly. Now, theſe Iſlanders be the only men that dare encountre him aſſront.ouer and beſides, they will take the riuer, and ſwim after them, nay they will mount vpon their backs, and ſet them like horſemen: and as they turne their heads, with their mouth wide open to bite or deuour them they will thruſt a club or great cudgell into it croſſe ouerthwart, and ſo holding hard with both hands each end thereof, the one with the right, and the other with the left, and ruling them perforce (as it were) with a bit and bridle, bring them to land like priſoners: when they haue them there, they will ſo fright them only with their words and ſpeech, that they compel them to caſt vp and vomit thoſe bodies againe to be entered, which they had ſwallowed but newly before. And therefore it is, that this is the only Iſle which the Crocodiles wil not ſwim to: for the very ſmell and ſent of theſe Tentyrites is able to driue them away, like as the Pſelli with their ſauour put Serpents to flight. By report, this beaſt ſeeth but badly in the water: but be they once without, they are moſt quick ſighted. All the 4 winter months they liue in a cave, and eat nothing at all. Some are of opinion, that this creature alone groweth all his life: and ſurely a great time he liueth.

The ſame riuer Nilus bringeth forth another beaſt called Hippopotamus, a Riuer-horſe. Taller he is from the ground than the Crocodile: he hath a clouen foot like a boue: the back, maine,

maine and haire of an horse, and he hath his neyng also. His muzzle or snout turneth vp: his taile twineth like the Bores, and his teeth likewise are crooked and bending downward as the Bores tusks, but not so hurtfull: the skin or hide of his backe vnpenetrable [whereof are made targuets and head-pieces of doubtie proof that now upon wil pierce] vnlesse it be socked in water or some liquor. He catcheth downe the standing corne in the field: and folke say that he setteth downe beforehand where he will pasture and feed day by day: and when hee sets forward to any field for his reliefe hee goeth alwaies backward, and his tracks are seene leading from thence, to the end that against his return he should not be forelaid nor followed by his footing

CHAP. XXVI.

¶ *Who first shewed the riuer-Horse and Crocodiles at Rome. Also the medicinable means found out by the said dumbe creatures.*

Marcus Scaurus was the first man, who in his plaies and games that he set out in his Edileship, made a shew of one water-Horse and foure Crocodiles, swimming in a poole or mote made for the time during those solemnities.

The riuer-Horse hath taught physitions one deuice in that part of their profession called Surgerie: for he finding himself ouer-grosse & fat by reason of his high feeding so continually, gets forth of the water to the shore, hauing spied afore where the reeds and rushes haue bin newly cut: and where he seeth the sharpest cane and best pointed, hee sets his body hard vnto it, to pricke a certaine veine in one of his legs, and thus by letting himselfe bloud maketh euacuation: whereby his body, otherwise inclining to diseases and maladies, is well eased of the superfluous humor: and hauing thus done, hee stoppeth the orifice againe with mud, and so stancheth the bloud, and healerth the wound.

CHAP. XXVII.

¶ *What physick Herbes certaine creatures haue shewed vs, to wit, the harts and stags, the Lizards, Swallowes, Tortois, the Weasell, the Storke, the Bore, the Snake, Dragon, Panther, Elephant, Beares, stocke-Dones, house Dones, Cranes, and Rauens.*

The like deuice to this, namely of clisters, we learned first of a Fowle in the same Egypt, called Iors [or the blacke Storke.] This bird hauing a crooked and hooked bill, vseth it in stead of a syringe or pipe to squirt water into that part, whereby it is most kinde and wholsome to auoid the doung and excrements of meat, and so purgeth and clenseth her body. Neither hath dumbe creatures directed vs to these feats onely practised by the hand, which might serue for our vse, to the preservation of our health, and cure of diseases: for the hart first shewed vs the vertue of the herbe Dictamnus or Dittanie, to draw arrowes forth of the bodie. Perceiuing themselves shot with a shaft, they haue recourse presently to that herbe, and with eating thereof it is driuen out again. Moreover, being stung with the Phalangium, a kinde of spider, or some such venomous vermin, they cure themselves with eating Crai-fishes, or fresh water crabs.

There is a certain herbe called Calaminth, most soueraigne and singular against the biting of serpents: wherewith the Lizards, whensoever they haue fought with them, cure their wounds by applying it thereto.

Celandine [the greater] a most wholsome herbe for the eie sight, Swallowes taught vs how to vse, for with it they helpe their yong ones when their eies be sore and put them to grieve.

The land Tortoise by eating of a kinde of Sauorie or Marjerome, called *Cunila bubula*, armes himselfe against poyson when he should fight with serpents.

The Weasell vseth Rue as a preseruatiue when hee purposeth to hunt for Rats, in case hee should fight with any of them.

The Storke feeling himselfe amisse, goeth to the herbe Organ for remedy. And the Bore when he is sicke is his owne physition, by eating iuy and crab fishes, such especially as the sea casteth vp to shore.

The Snake by restinesse and lying still all Winter, hath a certain membrane or filme grow-

A ing ouer her whole body, but hauing recourse to Fennel, with the iuice thereof she casteth that old coat that cloggeth her, and appeareth fresh, slick, and yong again. Now the manner of this her vncaising, is this, she beginneth first at the head, and turneth the skin ouer it, and thus she is a whole day and a night a folding it backward, before the inside of that membrane can be turned outward, and so she is clean rid of it. Moreover, when by lying still & keeping close all the Winter time, her sight is become dim and dark, she rubbeth and scoureth her self with the said herbe Fennel, and therewith annointeth and comforteth her eies. But if the scales that are ouergrowne her skin be hard and stiffe, nor willing to part and be remoued, she maketh no more ado, but scratcheth them with sharp juniper pricks.

The Dragon finding a certain lothing of meat, and ouerturning of her stomach in the spring time, cureth and helps the same with the iuice of the wild Le&uce.

B The barbarous people when they hunt the Panthers, rub the gobbers of flesh, which they lay as a bait for them, with Aconitum (a kind of poison-ful herbe.) The beasts haue no sooner touched the flesh, but presently their throat swelleth, and they are ready to be stifled and choked: whereupon some haue called this venomous herbe Pardalianches, i. Libard baine, or choke Libard. But the wilde beast hath a remedy against this, namely, the ordure and excrements of a man: yea, and at other times also, when he is not thus poisoned, so eager he is thereof, that when the shepheards for the nonce haue hanged them vp aloft in some vessell about their reach, although they leap vp at them, he is ready to faint with mounting on high, & straining to get the same, and in the end killeth himselfe therewith, & lieth dead on the ground. And yet otherwise he is too vntoward for to be killed, and so long it is ere he will die, that when he is pached, and his very guts come forth of his belly, he will liue still, and fight.

The Elephant if he chance to let the [Lizard] Chameleon go, downe his throat amongst other herbes or leaues (which this Lizard alwaies is like vnto in colour) he goeth straightwaies to the wild Olive, the only remedy he hath of this poison.

Beares, when they haue eaten Mandrage apples, licke vp pismires to cure themselves withall.

The Stag and Hind feeling themselves poisoned with some venomous weed among grasse where they pasture, go by and by to the Artichoke, and therewith cure themselves.

The Stock-doues, the Iais, Merles, Blackbirds, Oufels, recouer their appetite to meat, which once in a yeare they lose, with eating Bay-leaues that purge their stomach. Partridges, House-doues, Turtledoues, and all Pullet, as Hens, Cocks, and Capons, do the like with Parietarie of the wall. Ducks, Geese, and other water fowls purge with the herb Endiue or Cichory. Cranes and such like help themselves that way with the Marsh reed.

The Rauens when he hath killed the Chameleon, and yet perceiuing that he is hurt and poisoned by him, flieth for remedy to the Laurell, and with it represseth and extinguisheth the venom that he is infected withall.

CHAP. XXVIII.

¶ *The Prognostication of weather, taken by the obseruation of dumbe creatures.*

Moreouer, the same vniuersall Nature hath giuen a thousand properties besides vnto beasts: and namely, hath endued very many of them with the knowledge and obseruation of the aire aboue, giuing vs good meanes by them diuers waies, to fore-see what weather we shall haue, what winds, what raine, what tempest will follow: which to decipher in particular, it is not possible, no more than to discourse throughly of their other qualities they haue respectiue to the society with every man. For they aduertise & warn vs before-hand of dangers to come, not only by their fibres and bowels (about the skill and presage wherof, the most part of the world is amased) but also by other manner of tokens and significations. When an house is readie to tumble downe, the mice goe out of it before: and first of all, the spiders with their webs fall down. As for the flight of birds & their fore-tokening, called Augurie, there is an Art of it, and the knowledge thereof is reduced into a method; in so much as at Rome there was a college of Augurus instituted: by which it may appear in what account & regard that sacerdotal dignitie and profession was. In Thracia, which is a cold and frozen countrie, the Fox al-

by his eare, and otherwise it is a beast most quicke of hearing. And obserued it is, that men neuer venture thereupon, but when he goes to reliefe, or returneth from thence, and then he layes his eare close to the yce, and guesseth thereby how thicke the water is frozen.

CHAP. XXIX.

¶ *What cities and nations haue been utterly destroyed by little beasts.*

Nothing is more certain and notorious than this, that much hurt and dammage hath been known to come from small contemptible creatures, which otherwise are of no reckoning and account. *M. Varro* writes, That there was a towne in Spaine vndermined by Connies: and another likewise in Theffalie, by the Moldwarpes. In France the inhabitants of one citie were driuen out and forced to leaue it, by Frogs. Also in Affricke the people were compelled by Locusts to void their habitations: and out of Gyaros an Island, one of the Cyclades, the Islanders were forced by Rats and Mice to flee away. Moreouer, in Italie the citie Amycle was destroyed by serpents. In Æthiopia, on this side the Cynamolgi, there is a great country lieth wast and desert, by reason that it was dispeopled sometime by Scorpions, and a kinde of Pismires called Solpugæ. And if it be true that *Theophrastus* reporteth, the Trieriens were chased by certaine wormes called Scolopendres. But now let vs returne to other kinds of wild beasts.

CHAP. XXX.

¶ *Of the Hyæna, Crocuta, Mantichora, Bieuers, and Otters.*

As touching Hyænes, it is commonly beleued, that they haue two natures, and that euery second yeere they change their sexe, being this yeere males, and the next yeere females. Howbeit, *Aristotle* denieth it. Their necke and the mane therewith, together with the backe, are one entire bone without any ioint at all, so as they cannot bend their necke without turning the whole body about. Many strange mattes are reported of this beast, and about all one of them forth, whose name he hath learned, and when he hath him without, al to worrie and teare him in peeces. Also it is said that he will vomit like a man, thereby to train dogs to come vnto him, and then will deuoure them. Also, this beast alone of all others, will search for mens bodies within their graues and sepulchres, and take them forth. The female is seldome taken. He changeth his eies into 1000 diuers colours. Moreouer, if a dog come within his shadow, he presently loseth his barking and is quite dumbe. Again by a kind of magicall charme or enchantment, if he goe round about any other liuing creature but three times, it shall not haue the power to stir a foot and remooue out of the place. The Lionesses of Æthiopia, if they be covered with any of this kinde, bring forth another beast called Leocrocuta, which likewise knowes how to counterfeit the voice both of man, and of other beasts. He sees continually with both eies: he hath one entire bone in stead of teeth in either iaw (and no gombs at all) wherewith he cuts as with a knife. Now these bones, because they should not wax dul and blunt with continual grating one against the other, they are enclosed each of them within a case or sheath.

Iuba reports that the Mantichora also in Æthiopia resembles mens language. Great store of Hyænes be found in Affricke: which also yeelds a multitude of wild Asses. And one of the males is able to rule and leade a whole flocke of the female asses. This beast is so iecalous, that they looke narrowly to the females great with young: for so soone as they haue foled, they bite off the cods of the little ones that be males, and so gueld them. But contrariwise, the shee asses when they be big, seeke corners, and keepe out of their way, that they might bring forth their young secretly without the knowledge of the Stallions: for desirous they are to haue many males: so lecherous they be, and glad euermore to be couered.

The Bieuers in Pontus gueld themselves, when they see how neer they are driuen, and be in danger of the hunters: as knowing full well, that chased they be for their genetoires: and these their stones, Physitians call *Castoreum*. And otherwise, this is a dangerous and terrible beast with his teeth. For verily, he will bite down the trees growing by the riuer sides, as if they were cut with an axe. Looke where he catcheth hold of a man once, he neuer leaues nor lets loose vntill he haue knapped the bone in sunder, and heard it cracke againe. Tailed hee is like a fish, otherwise

A otherwise he resembleth the Otter. Both these beasts liue in the water altogether, and cary an haire softer than any plume or downe of feathers.

CHAP. XXXI.

¶ *Of Frogs, Sea-calues, and star-Lifards called Stelliones.*

The venomous frogs and todes called Rubetæ, which liue both on land, and also in the water, yeeld many good things medicinable. It is said, that their manner is to let goe & cast from them all that is good within them, reseruing only to themselves all the poison: and when they haue bin at their food, take the same vp againe. The sea calfe likewise liueth both in the sea, and vpon the land: and hath the same nature and qualitie that the beiuier is, for hee casteth vp his gall, which is good for many medicines: & so he doth the runnet in his maw, which is a singular remedy for the falling sicknes: for wel he is ware, that men seek after him for these two things. *Theophrastus* writeth, That the Lifards called Stelliones, cast their old coat, like as Snakes do; but when they haue so done, they eat it vp againe, and so preuent men of the helpe thereby for the said falling euill. He reporteth besides, that their stings and bitings in Greece be venomous and deadly: but in Sicily harmlesse.

CHAP. XXXII.

¶ *Of red and fallow Deere.*

The Bucke or Stag, albeit that he be the most gentle and mild beast in the world, yet is he as enuious as the rest, & loth to part with that which is good for others. Howbeit, if he chance to be ouerlaid with hounds, then gently of himselfe hee hath recourse to a man. Likewise, the Hinds when they are to calue, chuse rather some place neere to the pathes and waies that are beaten with many steps, than secret corners: for feare of other wilde beasts. They begin to goe to rut after the rising of the star Arcturus, which is much about the 5 of September: they goe 8 months: and otherwhiles bring 2 calues at once. Finding themselves that they are sped, they part companie with the Stags. But they againe seeing themselves forsaken, fall into a kinde of rage for heate of lust, and dig pits in the ground where they lie hidden. Then begin their muzzles to looke blacke, and so continue, vntill such time as some raine wash away that colour. The Hinds before they calue, purge themselves with the herbe Sefelis or Siler-montaine, whereby they haue lesse paine in their bearing, and more speedy and easie deliuerance. After they are lightened of their burden, they know where two herbes be, which they haue presently recourse vnto, Wake-Robin, and the foresaid Siler-mountain. When they haue eaten well thereof, they return presently to their yong. And (for what secret reason in Nature, God knowes) their first milke must haue a taste & talang of those two herbes. Their little ones they practise and exercise to vse their legs from the very beginning so soon as they be come into the world: teaching them euen then how they should run away and flie. To high and steepe cragged rockes they bring them and there shew them how to leape, and withall acquaint them with their dens and places of harborough. And now by this time, the stags being past the heat of the rut, feed apace. But so soone as they be growne very fat, they seeke lurking places, and there abide, confessing as it were how heauie and vnweldie they be for fatnesse, and how vncommodious it is vnto them. At other times they vse in their flight to make staies, and take their breath, and as they stand still, to looke behinde them. But when they espie once the hounds and hunters to be neere vnto them then they fall to running afresh. And this they doe for a pain that they haue in their guts, which are so weak & tender, that with a small blow or stripe giuen vnto them they will burst within their bellies. When they perceiue the hunt is vp, & heare the hounds crie, they presently run but euer downe the winde, to the end that the sent of their feet should passe away with them. They take much pleasure & delight in the sound of shepheards pipes, and their song withall. When they set vp their eares, they are most quicke of hearing: when they let them hang downe, they be as deafe. Moreouer, they are very simple and foolish creatures: amused, yea, and amased they will be at euery thing, and keepe a wondering at it, inso-much, as if an horse, a cow, or an haifer approach neere vnto them, they will stand gazing at it, and neuer regard the hunters neere by: or if they happen to spie him, they will looke at his

his very bow, and sheiue of arrows, as at strange and wondrous things. They passe the seas, swimming by flocks and whole heards in a long row, each one resting his head vpon the buttockes of his fellow next before him: and this they do in course, so as the foremost retireth behinde to the hindmost, by turnes one after another: and this is ordinarily obserued by those saylers that passe from Cilicia to Cypres. And yet in their swimming they desery no land by the eye, but only by their smelling haue an aime thereat. The males of this kind are horned, and they (about all other liuing creatures) cast them euery yeare once, at a certaine time of the Spring: and to that purpose a little before the very day of their mewing, they seek the most secret corners and most out of the way, in the whole Forrest. When they are pollards, they keep close hidden, as if they were disarmed: and all this they do, as if they eniued that men should haue good of any thing that they had. And in very truth, the right horn (they say) can neuer be found, as if it had some rare and singular vertue in Physicke. A strange and maruellous thing, considering that in the parks they change them euery yeare, in so much as it is thought verily, that they hide them within the earth. But burne whether of them ye will, the left as well as the right, this is certain, That the smell and perfume thereof driueth serpents away, and discouereth them that are subiect to the fits of the falling disease. A man may also know their age by their heads, for euery yeare they haue one knag or branch more in their horns than before, vntill they come to six: after which time, they come new euer alike; so as their age cannot be discerned any more by the head, but the marke is taken by their mouth and teeth; for as they grow in age, they haue few or no teeth at all, ne yet grow the branches out at the root, whereas all the while they were younger, they vsed to haue them breake forth and standing out at the very forehead. After they be gueldd once, neither cast they their hornes which they had before, neither grow there any if they had none when they were libbed. At the first when they breake out againe, like they be to the glandules or kernels of dry skin, that new put forth: then grow they with tender stalks, into certain round and long knobs of the reed mace, couered all ouer with a certaine soft plume downe like veluet. So long as they be destitute of their hornes, and perceiue their heads naked, they go forth to reliefe by night; and as they grow bigger and bigger, they harden them in the hot sun, eftssoons making prooffe of them against trees; and when they perceiue once that they be tough and strong enough, then they go abroad boldly. And certainly some of them haue been taken with green Iuie sticking fast and growing in their hornes, remaining there since the time that they ran them (when they were but tender) against some trees, for triall whether they were good or no, and so chanced to race the Iuie from the wood of the tree. You shall haue them sometime white of colour, and such an one was the hind that *Q. Sertorius* had about, which he perswaded the people of Spaine to be his Sooth-sayer, & to tel him of things to come. This kind of Deere maintaine fight with serpents, and are their mortall enemies: they will follow them to their very holes, and there (by the strength of drawing and snuffing vp their wind at the nostrils) force them out whether they wil or no: and therefore there is not so good a thing again to chase away serpents, as is the smoke and smel of an Harts horn burnt. But against their sting or biting, there is a singular remedy, with the runnet in the maw of a fawne or Hind-calse killed in the dams belly. It is generally held and confessed, that the Stag or hind liues long: for an hundred yerres after *Alexander* the great, some were taken with golden collars about their necks, ouergrowne now with haire and growne within the skin: which collars, the said king had done vpon them. This creature of all diseases is not subiect to the feuer, but he is good to cure it. I haue known great ladies and dames of state, vse euery morning to eat the venison of red Deere, and thereby to haue liued a great age and neuer had the ague: but it is thought this is a certain remedy and neuer faileth, in case the stag be stricken starke dead at once with one wound and no more.

CHAP. XXXIII.

¶ Of the shag-haired and bearded Stagge like to a Goat:
as also of the Chamæleon.

OF the same kind is the Goat hart, and differing only in the beard and long shag about the shoulders, which they call Tragelaphis: and this breedeth no where but about the riuer Phasis. Africke in a manner is the onely countrey that breedeth no stags and hinds: but contrari-

A contrariwise, it bringeth Chamæleons, although India hath them ordinarily in greater number. In shape and quantitie it is made like a Lizard, but that it standeth higher and streighter than the Lizards do, vpon his legs. The sides, flank, and belly, meet together, as in fishes: it hath likewise sharp prickles, bearing out vpon the back as they haue: snouted it is, for the bignesse not vnlike to a swine, with a very long taile thin and pointed at the end, winding round and entangled like to vipers: hooked clawes it hath, and goeth slow, as doth the Tortoise: his body and skin is rough and scaly, as the crocodiles: his eies standing hollow within his head, & those be exceeding great, one neere vnto the other, with a very small portion betweene, of the same colour that the rest of the body is: he is alwaies open eied, and neuer closeth them: he looketh about him not by mouing the ball of his eie, but by turning the whole body thereof: he gapes euermore aloft into the aire, and is the onely creature aliue that feedeth neither of meat nor drinke, but hath his nourishment of aire onely: about wilde fig-trees he is fell and dangerous, otherwise harmlesse. But his colour naturally is very strange and wonderful, for euer and anon he changeth it, as well in his eie, as taile and whole body besides: and looke what colour he toucheth next, the same alwaies he resembleth, vnlesse it be red and white. When he is dead, hee looketh pale and wan: very little flesh he hath in head and chawes, and about the ioint where his taile is graffed to his rump; but in all the body besides, none at all. All his bloud is in his heart, and about his eies: among other his bowels, he is without a spleen. Hidden hee lieth all winter long, as Lizards do.

CHAP. XXXIII.

¶ Of the Buffe, or Tarandus: the Lycaon, and the Thos.

C IN Scythia there is a beast called Tarandus, which changeth likewise colour as the Chamæleon: and no other creature bearing haire doth the same, vnlesse it be the Lycaon of India, which (by report) hath a maned necke. As for the Thoes (which are a kinde of wolues somewhat longer than the other common wolues, and shorter legged, quicke and swift in leaping, liuing altogether of the venison that they hunt & take, without doing any harme at all to men) they may be said, not so much to change their hew, as their habit and apparell: for all winter time they be shag-haired, but in summer bare and naked. The Tarandus is as big as an oxe, with an head not vnlike to a stags, but that it is greater, namely carrying branched hornes: clouen D hoofed, and his haire as deep as is the Beares. The hide of his backe is so tough and hard, that thereof they make brest-plates. He taketh the colour of all trees, shrubs, plants, floures, and places wherein he lieth when he retireth for feare; and therefore seldome is he caught. But when he list to looke like himselfe and be in his owne colour, he resembleth an Asse. To conclude, strange it is that the bare body of a beast should alter into so many colours: but much more strange it is and wonderfull, that the haire also should so change.

CHAP. XXXV.

¶ Of the Pork-pen.

E THE Porkpens come out of India and Africke: a kind of Vrchin or hedge-hog they be: armed with prickles they be both; but the Porkpen hath the longer sharp pointed quilles, and those, when he stretcheth his skin, he sendeth and shooteth from him: when the hounds presseth hard vpon him, he flieth from their mouthes, and then takes vantage to launce at them somewhat farther off. In the Winter he lieth hidden, as the nature is of many beasts to doe, and the Beares about the rest.

CHAP. XXXVI.

¶ Of the Beares, and how they breed and bring forth their young.

F HEY ingender in the beginning of winter, not after the common manner of other four-footed beasts, but lying both along, clasping and embracing one another: then they goe apart into their dennes and caues, where the she beare thirtie daies after is discharged of her burden; and bringeth forth commonly fve whelps at a time. At the first, they seem to be a lump

lump of white flesh without all form, little bigger than rattons, without eies, & wanting haire: only there is some shew and apparance of claws that put forth. This rude lumpe, with licking G they fashion by little & little into some shape; & nothing is more rare to be seen in the world, than a she beare bringing forth her yong; and this is one cause that the male beares are not to be seen in 40 daies, nor the femall for 4 moneths. If they haue no holes and dens for the purpose, they build themselves cabbins of wood, gathering together a deale of boughes & bushes, which they couch and lay artificially together, to beare off any shower, so as no raime is able to enter; and those they strew vpon the floore with as soft leaues as they can meet withall. For the first 14 daies (after they haue taken vp their lodging in this manner) they sleep so soundly, that they cannot possibly be wakened, if a man should lay on and wound them. In this drowiness of theirs, they grow wondrous fat. This their grease and fat thus gotten, is it that is so medicine- H able, and good for those that shed their haire. These 14 days once past, they sit vpon their rump or buttocks, and fall to sucking of their fore-feet, and this is all their food wherof they liue for the time. Their yong whelpes, when they are starke and stiffe for cold, they huggle in their bosom and keep close to their warm breast, much like to birds that sit vpon their eggs. A strange and wonderful thing it is to be told, and yet *Theophrastus* beleueth it, That if a man take bears flesh during those daies, and seeth or bake the same, if it be set vp and kept safe it will grow neuertheless. All this time they dung not, neither doth there appeare any token or excrement of meat that they haue eaten: and very little water or aquositie it found within their belly. As for bloud, some few small drops lie about the heart only, and none at all in the whole body, besides I Now when spring is come, forth they go out of their den, but by that time the males are exceeding ouergrown with fat: and the reason therof cannot be readily rendred: for as we said before, they had no more but that fortnights sleep to fat them withall. Being now gotten abroad, the first thing that they do, is to deuoure a certain herbe named *Aron*. Wake-robin, and that they do to open their guts, which otherwise were clunged and grown together: and for to prepare their mouths and teeth again to eat, they whet and set the edge of them with the yong shoors and tendrons of the briers and brambles. Subiect they are many times to dimnesse of sight: for which cause especially they seek after hony combs, that the bees might fertle vpon them, and with their stings make them bleed about the head, and by that means discharge them of that heauinesse which troubleth their eies. The Lions are not so strong in the head, but beares bee as weak and tender there: and therefore when they be chafed hard by hunters, & put to a plunge, K ready to cast themselves headlong from a rocke, they couer and arme their heads with their fore-feet and pawes, as it were with hands, and so jump downe: yea and many times, when they are baited in the open shew-place, we haue known them laid streaking for dead with one cuffe or box of the eare giuen them with a mans fist. In Spain it is held for certain, that in their brain there is a venomous qualitie; and if it be taken in drinke, driueth men into a kind of madnesse, so as they will rage as if they were beares: in token whereof, whensoever any of them be killed with baiting, they make surework and burn their heads all whole. When they list, they wil go on their two hinder feet vp right; they creep down from trees backward: when they fight with bulls, their manner is to hang with all their foure feet, about their head and hornes, and so with the very weight of their bodies wearie them. There is not a liuing creature more craftie and L foolish withall, when it doth a shrewd turne. We finde it recorded in the *Annales* of the Romans, that when *M. Piso* and *M. Messala* were Consuls, *Domitius Aenobarbus* an *Aedile Curule*, vpon the 14 day before the Calends of October, exhibited 100 Numidian beares to be baited & chafed in the great Cirque, and as many *Ethiopian* hunters. And I maruell much, that the Chronicle nameth Numidian, since it is certain, that no beares come out of *Africke*.

CHAP. XXXVII.

¶ Of the Rats of Pontus, and the Alps: also of Vrchins and Hedge-hogs.

THE Rats of Pontus, which be onely white, come not abroad all winter: they haue a most fine and exquisit taste in their feeding; but I wonder how the authours that haue written this, should come to the knowledge of so much. Those of the Alps likewise, *i. Marmot-* tans, which are as bigge as Brocks or Badgers, keepe in, during winter: but they are provided of

A of viuals before hand which they gather together and carry into their holes. And some say, when the male or female is laden with grasse and herbs, as much as it can comprehend within all the foure legges, it lieth vpon the backe with the said prouision vpon their bellies, and then commeth the other, and taketh hold by the taile with the mouth, and draweth the fellow into the earth: thus doe they one by the other in turnes: and hereupon it is, that all that time their backs are bare and the haire worne off. Such like *Marmotaines* there be in *Egypt*; and in the same manner they sit ordinarily vpon their buttocks, and vpon their two hinder feet they goe, vsing their fore-feet in stead of hands.

Hedgehogs also make their prouision before-hand of meat for winter, in this wise. They wal- low and roll themselves vpon apples and such fruit lying vnder foot, and so catch them vp with their prickles, & one more besides they take in their mouth, & so carry them into hollow trees. B By stopping one or other of their holes, men know when the wind turneth, and is changed from North to South. When they perceiue one hunting of them, they draw their mouth and feet close together with all their belly part, where the skin hath a thin downe and no pricks at all to do harme, and so roll themselves as round as a foot-ball, that neither dog nor man can come by any thing but their sharpe-pointed prickles. So soon as they see themselves past all hope to escape, they let their water go & pisse vpon themselves. Now this vrine of theirs hath a poisonous qualitie to rot their skin and prickles, for which they know well enough that they be chased and taken. And therefore it is a secret and speciall policie, not to hunt them before they haue let their vrine go; and then their skin is very good, for which chiefly they are hunted: otherwise it is nought euer after, and so rotten, that it will not hang together, but fall in pieces: C all the prickles shed off, as being putrified, yea although they should escape away from the dogs and liue still: and this is the cause that they neuer bepisse and drench themselves with this pestilent excrement, but in extremitie & vtter despaire: for they cannot abide themselves their owne vrine, of so venomous a qualitie it is, & so hurtfull to their own body; and do what they can to spare themselves, attending the vtmost time of extremitie, inso much as they are ready to be taken before they do it. When the Vrchin is caught alieue, the deuise to make him open again in length, is to besprinkle him with hot water, and then by hanging at one of their hinder feet without meat they die with famine: otherwise it is not possible to kill them and saue their case or skin. There be writers who bath not to say, That this kinde of beast (where not those D prickles) is good for nothing, and may well be missed of men: and that the soft fleece of wooll that sheepe bear, but for these prickles were superfluous & to no purpose bestowed vpon mankind: for which the rough skin of these Vrchins, are brushies & rubbers made to brush & make cleane our garments. And in very truth, many haue gotten great gain & profit by this commodity & merchandise, and namely, with their crafty deuise of monopolies, that all might passe through their hands only: notwithstanding there hath not bin any one disorder more repressed and reformation sought by sundry edicts and acts of the Senate in that behalfe: euery prince hath been continually troubled hereabout with grieuous complaints out of all prouinces.

CHAP. XXXVIII.

¶ Of the *Leontophone*, the *Onces*, *Badgers*, and *Squirrels*.

TWO other kinds there be of beasts, whose vrine worketh strange and wonderfull effects. The one is called *Leontophonus*, and he breeds in no country but where there be lions: a little creature it is, but so venomous, that the lion (king of beasts, before whom all others tremble) for all his might and puissance, dieth presently if he taste neuer so little thereof. And therefore they that chase the lion, get all the *Leontophones* that they can come by, burne their bodies, and with the powder of them bestrew & season as it were the pieces of other flesh that they lay for a bait in the Forrest, and thus with the very ashes (I say) of his enemy, kill him: and deadly and pernicious is it to the lion. No marueile therefore if the lion abhor & hate him, for so soon as he espieth him, he crushes him with his pawes, and so killeth him without setting tooth to his body. The *Leontophone* for his part againe, is as ready to bedrench him with his vrine, knowing right well that his pisse is a very poison to the Lion.

In those countries were the *Onces* breed, their urine (after it is made) congealeth into a certain ycie substance, & waxes drie, & so it comes to be a certain pretious stone like a carbuncle, V. glit-

Or rather in-
stead of razels
that share-
men vse.

glittering and shining as red as fire, and called it is *Lyncurium*. And vpon this occasion many haue written, that Amber is ingendred after the same maner. The Onces knowing thus much, for very spight and enuie, couer their vrine with mold or earth, and this maketh it so much the sooner to harden and congeale.

The Grayes, Polcats, or Brocks, haue a cast by themselves, when they be affraid of hunters: for they will draw in their breath so hard, that their skin being stretched and puffed vp withall, they will auoid the biting of the hounds tooth, and checke the wounding of the hunter; so as neither the one nor the other can take hold of them.

The Squirrels also foresee a tempest comming, and where the wind will blow: for looke in what corner the wind is like to stand, on that side they stop vp the mouth of their holes, and make an ouerture on the other side against it. Moreouer, a goodly broad bush taile they haue, wherewith they couer their whole body. Thus you see how some creatures prouide victuals against winter, others battle and feed with sleepe onely.

CHAP. XXXIX.

¶ Of the Viper, Land-winkles or Snailles, and Lizards.

Of all other serpents, it is said, that the Viper alone lies hidden in the ground during winter, whereas the rest keepe within cranies and cliffs of trees, or else in the hollow chinkes of stones: and otherwise they are able to endure hunger a whole yeere, so they be kept from extreame cold: All the while during their retreat and lying close within, they sleepe as if they were dead and deprived of their power to poysen.

In like manner do Perwinkles and Snailles; but not only in the winter season, but in Summer againe they lie still, cleauing so hard to rocks & stones, that although by force they be plucked off and turned with their bellies vpward, yet they will not out of their shell. In the Balear Islands there be a kinde of them called *Cauatica*, which neuer creepe out of their holes within the ground, neither liue they of any grasse or greene herbe, but hang together like clusters of grapes. Another sort there is of them, but not so common, hiding themselves within the couer of their shell, sticking euer fast vnto them: these lie alwaies vnder the ground, and were in times past digged vp onely about the Alpes, along the maritime coasts: but now of late they be discovered in Veliternum also, where men begin to get them out of the earth. But the best of them all and most commendable, are those in the Island *Astyrelæa*.

As touching Lizards (deadly enemies to the Snailles or Winkles aboue-named) men say they liue not aboue six moneths. In Arabia, the Lizards be a cubit in length: and in the mountain Nisa of India, they be foure and twenty foot long; some tawnie, some light red, and others blew of colour.

CHAP. XL.

¶ Of Dogges.

Among those domesticall creatures that conuerse with vs, there be many things worth the knowledge: and namely, as touching dogges (the most faithfull and trustie companions of all others to a man) and also horses. And in very truth, I haue heard it credibly reported, of a dogge, that in defence of his master, fought hard against theues robbing by the highway side: & albeit he were fore wounded euen to death, yet would he not abandon the dead body of his master, but draue away both wild foule and sauage beast, from seizing of his carcase. Also of another in Epirus, who in a great assembly of people knowing the man that had murdered his Master vpon him with open mouth, barking and snapping at him so furiously, that he was ready to take him by the throat, vntill he at length confessed the fact that should cause the dog thus to rage and some against him. There was a king of the Garamants exiled, and re- conuered his royall state againe by the meanes of 200 dogges that fought for him against all those that made resistance, and brought him home maugre his enemies. The Colophonians and Catabalæans, maintained certain squadrons of mastiue dogs, for their war seruice: and those were put in the vaward to make the head and front of the battell, and were neuer knowne to draw back and refuse fight. These were their trustiest auxiliaries and aid-soldiers, and neuer so needy

as to call for pay. In a battell when the Cimbrians were defeated and put all to the sword, their dogges defended the baggage, yea, and their houses (such as they were) carried ordinarily vpon charriots. *Iason* the Lycian had a dogge, who after his master was slaine, would neuer eat meat, but pined himselfe to death. *Duris* maketh mention of another dogge, which he named *Hircanus*, that so soone as the funerall fire of king *Lyfimachus* his master was set a burning, leapt into the flame. And so did another at the funerals of king *Hiero*. Moreouer, *Phylistus* reporteth as strange a story of king *Pyrhus* his dogge: as also of another belonging to the tyrant *Gelo*. The Chronicles report of a dog that *Nicomedes* king of Numidia kept, which flew vpon the queene *Consingis* his wife, & al to mangled and worried her, for toying and dallying ouerwantonly with the king her husband. And to goe no farther for examples, euen with vs here at Rome, *Volcatius* a noble gentleman (who taught *Cecilius* the ciuile law) as he returned home one euening late, riding vpon an hackney from a village neere the citie, was assailed by a theeefe on the high way, but he had a dog with him that saued him out of his hands. *Celcius* likewise, a Senator of Rome, lying sicke at Plaisance, chanced to be assailed by his enemies, well appointed and armed; but they were not able to hurt and wound him, by reason of a dog that he had about him, vntill such time as they had killed the said dog. But this passeth al, which happened in our time, and standeth vpon record in the publicke registers, namely, in the yeere that *Appius Iunius* and *P. Silua* were Consuls, at what time as *T. Sabinius* and his seruants were executed for an outrage committed vpon the person of *Nero*, sonne of *Germanicus*: one of them that died had a dog which could not be kept from the prison dore, and when his master was throwne down the staires (called *Scala Gemonie*) would not depart from his dead corps, but kept a most pitteous howling and lamentation about it, in the sight of a great multitude of Romanes that stood round about to see the execution and the manner of it: and when one of the companie threw the dogge a piece of meat, he straightwaies carried to the mouth of his master lying dead. Moreouer, when the carcase was thrown into the riuer *Tiberis*, the same dog swam after, & made all the means he could to beare it vp afore that it should not sink: and to the sight of this spectacle and fidelitie of the poore dogge to his master, a number of people ran forth by heapes out of the citie to the water side. They be the onely beasts of all others that know their masters; and let a stranger vnknown be come neuer so suddenly, they are ware of his coming, and will giue warning. They alone know their owne names, and all those of the house by their speech. Be the way neuer so long, and the place from whence they came neuer so farre, they remember it, and can go thither againe. And surely, setting man aside, I know not what creature hath a better memorie. As furious and raging as they be otherwhiles, yet appeased they will be and quieted, by a man sitting down vpon the ground. Certes, the longer we liue, the more things we obserue & marke still in these dogges. As for hunting there is not a beast so subtle, so quick, & so fine of sent, as is the hound: he hunterh and followeth the best by the foot, training the hunter that leads him by the collar and leash, to the very place where the beast lieth. Having once gotten an eie of his game, how silent & secret are they notwithstanding; and yet how significant is their discouerie of the beast vnto the hunter: first with wagging their taile, and afterwards with their nose and snout, snuffing as they doe. And therefore it is no maruell, if when hounds or beagles be ouer old, wearie, and blind, men carry them in their armes to hunt, for to wind the beast, and by the verie sent of the nose to shew and declare where the beast is at harbour. The Indians take great pleasure to haue their salt bitches to be lined with tygres: and for this purpose, when they goe proud, they couple and tie them together, and to leaue them in the woods for the male tygres: howbeit they rene neither the first nor second litter of them, supposing that the dogs thus bred, will be too fierce and eger, but the third they nourish and bring vp. Semblably, thus doe the Gauls by their dogges that are ingendred of wolues: and in euerie chace and Forrest there be whole flocks of them thus ingendred, that haue for their guide, leader, and captain, one dogge or other: him they accompanie when they hunt, him they obey and are directed by: for surely, they keepe an order among themselves, of gouernment and mastership. This is knowne for certaine, that the dogges which be neere vnto Nilus, lap of the riuer, running still and neuer stay while they are drinking, because they will giue no vantage at all to be a prey vnto the greedie Crocodiles. In the ioiage that *Alexander* the Great made into India, the king of Albania gaue him a dogge of an huge and extraordinarie bignesse. And *Alexander* taking great delight and contentment to see so goodly and so faire a dogge, let loose vnto him first Beares, afterwards

had stood still in his place, and conducted them; and there fetcht three turnes round about the temple of *Iupiter*. But the greatest of all was this which I shall now tell, That the horses of *Ratumenus*, who had woon the price in the horse-running at *Veij*, threw their *M^o*. down; and came from thence, even out of *Tuscane*, as far as to the foresaid *Capitoll*, carrying thither the *Palme* branch and chaplet of *Victory* woon by *Ratumenus* their *M^o*. of whom the gate *Ratumena* took afterwards the name at *Rome*. The *Sarmatians* minding to take a great iournie, prepare their horses two daies before, and giue them no meat at all, only a little drinke they allow them, and thus they will ride them gallop 150 miles an end, and neuer draw bridle. Horses liue many of them 50 yeres, but the mares not so long. In five yeres they come to their full growth, whereas stone horses grow one yere longer. The making of good horses indeed, and their beautie, such as a man will chuse for the best, hath bin most elegantly and absolutely described by the Poet *Virgill*. And somewhat also haue I written of that argument, in my booke which I lately put forth, as touching *Tournois* and shooting from horsebacke: and in those points required, and there set downe, I see all writers in manner to agree. But for horses that must be trained to run the race, some considerations are to be had and obserued, different from horses of other vse and seruice. For whereas to other affaires and imployments they may be brought when they are two yeres old colts, and not vward; to the *Litts* they must not be brought to enter into any maistries there, before they be full five yeres of age. The female in this kind go eleuen months compleat with young, and in the twelfth they sole: commonly the stallion and the mare are put together, when both of them are full two yeres old: and that about the Spring Equinoctiall, all that is to say, in mid-March: but if they be kept asunder vntill they are full 3 yeres of age, they breed stronger colts. The Stallion is able to get colts vntill he be three and thirtie yers old, for commonly when they haue serued in the race, and run full twenty yeres, they are discharged from thence, & let go abroad for to serue mares. And men say that they will hold to 40 yeres with a little helpe put to the forepart of his body, that he may be lifted vp handsomly to couer the mare. Few beasts besides are lesse able to ingender and leape the female often, nor sooner haue enough of them. For which cause they be allowed some space between every time that they do their kind. And in one yeere the most that the Stallion is able to do that way, is to couer 15 mares, and that is somewhat with the ofteneft. If ye would coole the courage, & quench the lust of a mare, share and clip her mane. And yet are mares sufficient to beare every yeere, vntill they came to fortie. It is reported that an horse hath liued 75 yeres. Mares only of all other females, are deliuered of their foles, standing on their feet: but loue them more than any other doe their young. These foles verily, by report, haue growing on their forehead, when they be newly come into the world, a little blacke thing of the bignesse of a fig, called *Hippomanes*, & it is thought to haue an effectuall vertue to procure and win loue. The dam hath not so soon foled, but she bites it off, and eats it her selfe: and if it chance that any bodie prevents her of it, and catcheth it from her, she will neuer let the sole sucke her. The verie smell and sent thereof, if it be stollen away, will driue them into a fit of rage and madnesse. If peradventure a young sole lose the damme, the other mares of the common heard that are milch nurses, giue their teates to this poore orphan, and reare it vp in common. They say that for 3 daies after they be newly foled, the yong colts cannot lay their mouth to the ground, and touch it. Moreover, the hotter stomacked that a horse is, the deeper he thrusteth his nose into the water as he drinks. The *Scythians* chuse rather to vse their mares in war-seruice than their stone-horses: the reason is this, that their staling is no hinderance to their pace in running their carriere, as it doth the horse, who must needs then stand still. In *Portugall*, along the riuier *Tagus*, & about *Lisbon*, certaine it is, that when the west-wind blowes, the mares set vp their tails, and turne them full against it, and so conceiue that genitall aire in steed of naturall seed: in such sort, as they become great withall, and quicken in their time, & bring forth foles as swift as the wind, but they liue not above three yeres. Out of the same *Spain*, from the parts called *Gallicia* and *Asturia*, certaine ambliug iennets or nags are bred, which wee call *Thieldones*: and others of lesse stature & proportion every way, named *Asturcones*. These horses haue a pleasant pace by themselves differing from others. For albeit they be put to their full pace, a man shall see them set one foot before another so deftly and roundly in order by turnes, that it would do one good to see it: and hereupon horse-breakers (masters) haue an art by cords to bring a horse to the like amble. A horse is subiect to the same diseases in maner that a man is: & besides, to the running

A of the bladder: like as all other beasts that labour either in draught or carriage.

CHAP. XLIII.

¶ Of Asses.

V *Arro* writes, That *Q. Axius* a Roman Senator bought an Ass which bought him 400000 Sesterces, a price in my conceit about the worth of any beast whatsoever: & yet (doubtlesse) he was able to do wondrous good seruice in carrying burdens, plowing of ground, and principally in getting of mules. The chapmen that vse to buy these Asses haue a speciall regard to the place from whence they come, and where they be bred: for in *Achaia* or *Greece* those of *Arcadia* be in greatest request: and in *Italy* those of *Reate*. This creature of all things can worst away with cold; which is the cause that none of them are bred in *Pontus*. Neither do they ingender as other such like beasts, in the Spring Equinoctiall, about mid-March, but in mid-Iune, about the time of the Sun-stead, when daies be at the longest. He Asses, the more you spare them in their worke, the worse they are for it. The females are at the least 30 months or two yeres and halfe old before they bring any yong; but 3 yeres is the ordinarie and due time indeed. They go as long as mares, and iust so many moneths, and after the same maner do they sole. But after they be couered, they must be forced to run presently, with beating & laying on them, or else they will let go their seed again, so slippery is their wombe, and so vnapt to keep that which once it hath conceiued. They are seldome seene to bring forth two at once. C The she Ass when she is about to sole seeketh some secret blinde corner to hide her selfe, that she might not be seen of any man. She breeds all her life time, which commonly is vntill shee be 30 yeres old. They loue their yong foles exceeding well, but as ill or rather worse can they abide any water. To their little ones they will go through fire, but if there be the least brooke or rill between, they are so afraid of it, that they dare not once dip their feet therein. And verily drinke they will not, but of their accustomed fountaines within the pastures where they vse to go: but they will be sure to chuse their way, and go dry-foot to their drinke, and not wet their hoofs: neither will they go ouer any bridges, where the planks are not so close drawn together and ioyned, but that they may see the water through vnder their feet; or the railles of each side so open that the riuier is seene. A strange nature they haue by themselves. Thirsty they are: but be they neuer so dry, if you change their watering place (as in traouelling vpon the way) they must be forced to drinke with cudgels, or else vnloaden of their burdens. Wherefoeuer they be stabled, they loue to lie at large and haue roome enough. For in their sleep they dream, & haue a thousand phantasies appearing to them; inso much as they sling about them with their heeles every way: now if they were not at libertie, and had not void space enough, but should beat against some hard thing in their way, they would soone be lame and halt withall. They be very gainfull and profitable to their masters, yeelding more commoditie than the reuenues of good farme. It is well knowne, that in *Celtiberia* a she Ass ordinarily with very breeding may be worth vnto them 400000 Sesterces. For the soling and bringing forth of the mules, the chief thing to be regarded in the she Ass, is the haire about the eares and eie lids. For howsoeuer the whole body besides be of one and the same colour, yet shall the mules foled haue as many colours as were there, all ouer the skin. *Mecunas* was the first, that at feasts made a daintie dish of yong Ass foles, and preferred their flesh in his time before the venison of wild Asses. But he being dead, they were not thought so good meat, nor accepted at all. If an Ass be seene to die, looke soon after that the whole race and kind of them will follow to the very last.

CHAP. XLIV.

¶ Of Mules.

B etween the he Ass and a Mare is a Mule ingendred, and foled in the 12 moneth; a beast of exceeding strength to beare out all labor and trauell. For breeding of such Mules, Mares are chosen that are not vnder foure yeres old, nor about ten. Men say, that they will driue away one another in both kinds, and not accompany together, vnlesse they tasted the milk and sucked the damme when they were yong, of that kinde which they would couer. And for this purpose

IN Egypt also they had an Oxe which the people of that country adored and worshipped as a god, vnder the name of *Apis*. This beast was marked in this manner; with a white spot on his right side, like to the horns or tips of the new moon croissant; a knot or bunch vnder the tongue, which they called *Cantharus*: by their religion it was not lawfull to suffer him to liue about a certain number of yerres, at the end of which term they drown him in a certain Wel or fountain of their priests, and so shorten his life: and then with great sorrow fall to seek another to substitute in his place; vntil they find him they mourne and waile, and in token of grief and sorrow, they shauē their heads. But long they neuer are before they meet with another, & when they haue him, he is by the priests brought to Memphis, where he hath 2 Temples, which they call *Thalami*, bed-chambers; out of which all the people of Egypt, as from an Oracle, are informed truely of things to come. For if this Oxe enter into the one of them it is a good luckie signe; but if he go into the other, then it portendeth great mishap and infortunitie. And these be generall prefaces to the whole nation: As for priuat persons, he foretellet them of things to come by the maner of taking meat at their hands, who come to know what fortune they shal haue. He turned away his head from the hand of *Germanicus Caesar*, and would eat no meat when he offered it him; but he died for it, and that not long after. He is kept secrete and close for the most part; but if at any time he get forth and come abroad to be seen of the multitude of people, he goeth with a gard of tip-staues to make way for him, and then a company of prety boies kerth heed to what they sing, and is well pleased and contented thus to be worshipped. Now these Choristers before said presently fall into a kinde of furious rage, and withall are inspired with the gift of prophesie, and so foretell what will ensue. Once a yeare there is presented vnto him a Cow, which hath marks likewise as he hath, but differing from his: and alwaies on what day this cow is found, the same day, by report, it dies. At Memphis there is a place within Nidus, which the inhabitants name *Phiola*, because it is made in fashion of a pot or boll; & there in duly euery yere the Egyptians drowne two cups, one of siluer, another of gold, during seuen daies, dedicated to solemnise the natiuitie of their god *Apis*. And this is one thing to be wondered at, that in that seuen-night space there is not one that taketh hurt by Crocodiles: but let the eighth day come once, within six houres they returne to their former mischieuous cruelty

Sheepe likewise are in great request, both in regard they serue as sacrifices to pacifie the gods; and also by reason their fleece yeelds so profitable an vse: for euen as men are beholden to the bœuse for their principall food and nourishment which they labour for, so they must acknowledge, that they haue their cloathing and couerture for their bodies from the poore sheep. The ram and ewe both are fit for generation from two yerres of age vpwārd, vntill they come to nine, and some also vntill they be ten yerres old. The lambs they yeane first are but little ones. They go all generally to rut about the setting of *Arcturus*, viz. vpon the third day before the Ides of May; and their heat lasteth vnto the full of the *Egle* starre, namely the tenth day before the Calends of August. They be with yong 150 daies: if any take the Ram after that time, the fruit they beare comes to no good, but proues weake. And such lambs as fall after that season they called in old time *Cordos*, i. later lambs. Many men do preferre these winter lambs before those that come in spring: the reason is, because it is much better they should be strong before the heat of summer and the long daies, than against the cold of winter and the shortest daies: and they think that this creature only taketh good by being yeaned in the midst of winter. It is kinde and naturall for Rams to make no account of young Hogrels, but to loath them: for they had rather follow after old ewes. Himselfe also is better when he is old, and more lusty to leape the Ewes. To make him more milde and gentle they vse to bore

A bore his horne about the root neere vnto his eares. If his right cullion or stone be tied vp, hee getteth ewe lambs; but if the left be taken vp, he getteth ramme lambs. If ewes be alone by themselves without the flocke when it thundreth, they cast their lambs. The only remedie is to gather them together, that by company and fellowship they may haue help. They say, that if the North winds blow when they take the ram, they will bring forth males; but if the South winds be vp, females. Moreouer, great regard there is had in this kind, to the mouthes of the rams: for look what colour the veines be vnder their tongue, of the same will the fleece be of the lambs, that is to say, of sundrie colours, in case the veines were diuers coloured. Also the change of water and drinke maketh them to alter their hew. In summe, two principall kinds there be of sheep, that is to say, the one reared within house, and the other abroad in the field: the first is the tenderer, but the other more pleasant meat and delicat in tast; for those within-house feed vpon briars and brambles. The clothes and coverings made of the Arabick wooll, are chiefe of all.

The best wooll of all other, is that of *Apulia*: then, that which in Italy is named the Greek sheepe wooll, but in other countries is named Italian. In the third ranke, the Milesian sheepe and their wooll, carrie the prize. The wooll of *Apulia* is of a short staple, and specially in request for cloaks and mantles, and nothing else. About *Tarentum* and *Canusium*, the richest of this kind are found: as also at *Laodicea* in Asia. As for whitenesse, there is none better than that which groweth along the Po, namely, about *Piemount* and *Lombardie*: and yet neuer to this day, a pound of it hath exceeded the price of an hundred sesterces. In all places they vse not to sheare sheepe: for the manner of plucking their fells continueth still in some countries. Sundry sorts of colours there be in wooll, and so many, that we are not able to giue seuerall names so much as to those that we call *Natiue*, i. growing vpon the sheeps backe. For black fleeces, *Spaine* is chiefe, *Pollentia* for white; and grey, the tract of *Piemont* neere to the Alpes: Asia for red hath no fellow, and such kind of wools are called *Erythrae*, in *Boetia* likewise, that is to say, in the kingdome of *Granade* and *Andalusia*, the same colour is to be found. Neere to *Canusia*, the sheepe be deepe yellow or tawne: and about *Tarentum*, they are of a browne and dusky colour. Generally, all kind of wools newly shorne or plucked, ynwash and greasy still, be good and medicinable. About *Istria* and *Liburnia*, the sheeps fleece resembleth haire rather than wooll, nothing at all good for to make frized clothes with a high nap: but serueth only for the Artizan or workman in *Portugall*, whose artificial weauing in net or scutcheon work with squares, commends this wooll. The like wooll is common about *Pissenæ* in the province *Narbonensis*, i. *Languedoc* in *Fraunce*: and such is found in *Egypt*: the cloth made thereof, after it is worne bare, is then died and serueth new againe, and will weare still and last a mans life. The course rough wooll with the round great haire, hath been of ancient time highly commended and accounted of in tapestrie worke: for euen *Homer* himselfe witnesseth, that they of the old world vsed the same much, and tooke great delight therein. But this tapestry is set out with colours in *Fraunce*, after one sort, and among the *Parthians* after another. Moreouer, wooll of it selfe driuen together into a felt without spinning or weauing, serueth to make garments with: and if vinegre be vsed in the working of it, such felts are of good proof to bear off the edge and point of the sword, yea and more than that, they will check the force of the fire. And the last clesing and refuse thereof (when it is taken out of the coppers and leads of those that haue the fulling and dressing thereof) serues for flock worke and to stufte mattresses: an inuention (as I suppose) which came first out of *France*: for surely these flocks and quilted mattresses, are at this day distinguished and knowne one from another by *French* names. But I am not able easily to set downe at what time first this workmanship began: for certaine it is that in old time men made them pallers and beds of straw, or else lay vpon bare mats, like as now adays souldiers in the camp make shift with hairy rugges. As for our mantles, frized deep both without and within, they were inuented & came to vse first, no longer since than in my fathers daies: as also these hairy counterpoints and carpets. For the studded cassocks that Senatours and noble men of *Rome* do weare, begin but now for to be woven after the manner of deep frize rugges. Wooll that is blacke, will take no other hew, nor be dyed into any colour.

As touching the manner how to die other woolls, we wil speake in conuenient place, namely, G when we shall treat of the purples and sea shell fishes, and of certain hearbs good for that purpose. *M. Varro* writeth, That within the temple of *Sanguis*, there continued vnto the time that he wrote his booke, the wooll that ladie *Tanaquil*, otherwise named *Cata Cacia*, spun: together with her distaffe and spindle: as also, within the chappell of Fortune, the very roiall robe or mantle of Estate, made with her owne hands after the manner of water-chamlot in waue worke, which *Servius Tullus* vsed to weare. And from hence came the fashion & custome at Rome, that when maidens were to be wedded, their attended vpon them a distaffe, drest and trimmed with kemberd wool, as also a spindle and yeare vpon it. The said *Tanaquil* was the first that made the coat or cassock wouen right out all thorough, such as new beginners (namely, young souldiers, barristers, & fresh brides) put on vnder their white plaine gownes, without any guard of purple. H The waued water Chamelot, was from the beginning esteemed the richest and brauest wearing. And from thence came the branched damaske in broad workes. *Fenestella* writeth, That in the latter time of *Augustus Caesar* they began at Rome to vse their gownes of cloth shorne, as also with a curled nap. As for those robes which are called *Crebra* and *Papaerata*, wrought thick with floure worke, resembling poppies, or pressed euen and smooth; they be of greater antiquitie: for euen in the time of *Lucilius* the Poet, *Torquatus* was noted and reprooued for wearing them. The long robes embrodered before, called *Prætextæ*, were deuised first by the Tuscanes. The *Trabeæ* were roiall robes, and I find that kings & princes only ware them. In *Homer's* time also they vsed garments embrodered with imagerie and floure worke: & from thence came the triumphant robes. As for embroderie it selfe and needle-work, it was the Phrygians inuention: I and hereupon embroderers be called in Latine *Phrygiones*. And in the same Asia, king *Attalus* was the first that deuised cloth of gold: and thence come such clothes to be called *Attalica*. In Babylon they vsed much to weaue their cloth of diuers colours, and this was a great wearing among them, & clothes so wrought were called *Babylonica*. To weaue cloth of tissue with twisted threds both in woofe and warp, and the same of sundry colours, was the inuention of *Alexandria*, and such clothes and garments were named *Polymita*. But France deuised the scutcheon, square, or lozenge damask worke. *Metellus Scipio*, among other challenges and imputations laid against *Capito*, reproched and accused him for this, That his hanging s and furniture of his dining chamber, being Babylonian worke or cloth of Arras, were sold for 800000 sesterces: and such like of late daies stood prince *Nero* in 400 hundred thousand sesterces, i. 40 millions. The K embrodered long robes of *Servius Tullus*, wherewith he couered and arrayed all ouer the Image of *Fortune*, by him dedicated, remained whole and sound vnto the end of *Scianns*. And a wonder it was, that they neither fell from the image, nor were moth-eaten in 560 yeares. I haue my selfe seen the sheeps fleeces vpon their backs while they be aliue, died with purple, with scarlet in grain, and the violet liquor of the fish *Murex*: by the means of certaine barks of a foot and a halfe long dipped in these colors, and so imprinted and set vpon their fleeces: as if riotous wantonnes and superfluitie should force Nature's work, and make wooll to grow of that colour. As for the sheep it selfe, she is knowne to be kindly enough by these marks, If she be short legged, and wel woollled vnder the bellie, for such as were naked there and pilled, they condemned and held for naught, and those they called *Apicæ*. In Syria, sheep haue taires a cubit long, and they beare most wooll there. To lib lambs before they be fve moneths old, it is thought to be with the soonest, and daungerous.

CHAP. XLIX.

¶ Of a beast called *Musmon*.

There is in Spaine, but especially in the Isle *Corfica*, a kind of *Musmones*, not altogether unlike to sheep, hauing a shag more like the haire of goats, than a fleece with sheeps wooll. That kind which is engendred between them and sheepe, they called in old time *Vmbri*. This beast hath a most tender head, and therefore in his pasture he is forced to feed with his taile to the sunne. Of all liuing creatures, those that bare wooll are most foolish: for take but one of them by the horne and lead him any whither, all the rest will follow, though otherwise they were afraid to go that way. The longest that they liue in those parts, is 9 yeares; wherwise they were afraid to go that way. The longest that they liue in those parts, is 9 yeares; howsoeuer in *Æthiopia* they come to 13. In which country, goats also liue 11 yeares, whereas in other

A other countries of the world, for the most part, they passe not eight. And both sorts, as well the one as the other, be sped within foure leapings.

CHAP. L.

¶ Of Goats, and their breeding.

G Oats bring forth foure kids otherwhiles, but that is very seldome. They goe with young fve months as ewes do. Shee goats waxe barren with fatnesse. When they be come once to be three yeares old, they are not so good to breed: ne yet when they be elder, and namely, being past foure yeares of age. They begin at the seuenth month, euen whiles they sucke their dammes. And as well the bucke as the Doe are held the better for breed, if they be nott, and haue no hornes. The first time that the shee goats are leaped, they stand not to it: the second leaping speedeth better, and so forward. They chuse willingly to take the buck in the month of November, that they might bring kids in March following, when all shrubs put forth and begin to sprout and bud, for them to brouze. And this is sometime when they be a yeare old, but they neuer faile at two yeares: yea and when they be full three, they are not vtterly decayed and done, but are good still: for they beare 8 yeares. Subject they be in cold weather, to cast their young and yeane vntimely. The Doe, when she perceiueth her eies dimme and ouer-cast either with pin and web or catarract, pricketh them with the sharp point of some bulrush, and so leteeth them blood: but the bucke goeth to the brier and doth the like. *Mutianus* reporteth, that he had occasion vpon a time to mark the wit of this creature: It happened, that vpon a narrow thinne plank that lay for a bridge, that one goat met another coming both from diuers parts: now by reason that the place was so narrow that they could not passe by nor turne about, ne yet retire backwards blindly, considering how long the plank was & so slender withall, moreover, the water that ran vnderneath ran with a swift streame, and threatned present death if they failed and went besides: *Mutianus* (I say) affirmeth, that he saw one of them to lie flat down, and the other to goe ouer his backe. As for the male goats, they are held for the best which are most camoise or snout nosed, haue long eares, and the same slit in, with great store of shag haire about their shoulders. But the mark to know the kindest female is this, they haue two lappets, locks, or plaits as it were of haire, hanging downe along their bodie on either side from their necks. They haue not al of them hornes, but some are nott; but in those which are horned, a man may know their age by the number of the knots therein more or lesse: and in very truth the nort shee goats are more free of milke. *Archelaus* writeth, that they take their breath at the eares, and not at the nostrils: also that they be neuer cleare of the ague. And this haply is the cause, that they are hotter mouthed, and haue a stronger breath than sheepe, and more egre in their rut. Men say moreover, that they see by night as well as by day: therefore they that when euening is come see nothing at all, recouer their perfect sight again by eating ordinarily the liuer of goats. In *Cilicia* and about the *Syrtes*, the people clad themselues with goats haire, for there they shere them as sheep. Furthermore it is said, that goats toward the Sun-setting, cannot in their pasture see directly one another, but by turning taile to taile: as for other houres of the day, they keep head to head, & range together with the rest of their fellows. They haue all of them a tuft of haire like a beard hanging vnder their chin, which they call *Aruncus*. If a man take one of them by this beard and draw it forth of the stock, all the rest will stand still gazing thereat, as if they were astonied, and so wil they doe if any of them chance to bite of a certaine hearb. Their teeth kill trees. As for an oliue tree, if they doe but lick it, they spoile it for euer bearing after: and for this cause they be not killed in sacrifice to *Minerus*.

CHAP. LI.

¶ Of Swine, and their natures.

S Wine goe a brimming from the time that the Westerne wind *Fautonius* beginnes to blow; vntill the spring *Æquinoctiall*: and they take the bore when they be eight months old: yea in some places at the fourth month of their age, and continue breeding vnto the seuenth yeare. They farrow commonly twice a yeare: they be with pig foure months. One sow may bring at one farrow twenty pigges, but reare so many she cannot. *Nigidius* saith, that those pigs which

which are farrowed ten daies vnder or ten daies ouer the shortest day in the yeare, when the sun G
entreteth into Capricorn, haue teeth immediatly. They stand lightly to the first brimming, but
by reason that they are subiect to cast their pigs, they had need to be brimmed a second time.
Howbeit the best way to prevent that they doe not slip their young, is to keepe the bore from
them at their first grunting and seeking after him, nor to let them be brimmed before their ears
hang downe. Bores be not good to brim swine after they be three yeres old. Sows when they be
wearie for age that they cannot stand, take the bore lying along. That a sow should eat her own
pigs, it is no prodigious wonder. A pig is pure & good for sacrifice, 5 daies after it is farrowed;
a lamb, when it hath been yeaned 8 daies; and a calfe, being 30 daies old. But *Gornucanus* saith,
That all beasts for sacrifice which chew cud, are not pure and right for that purpose, vntill they H
haue teeth. Swine hauing lost on eie, are not thought to liue long after; otherwise they may
continue vntill they be fifteen yeares old, yea & some to twenty. But they grow to be wood and
raging otherwhiles: and besides are subiect to many maladies more, & most of all to the squi-
nancie, and wen or swelling of the kernels in the neck. Will ye know when a swine is sick or vn-
sound, pluck a bristle from the back and it will be bloudie at the root: also he will cary his neck
at one side as he goeth. A sow, if she be ouer-fat, soone wanteth milke; and at her first farrow
bringeth fewest pigs. All the kind of them loue to wallow in dirt and mire. They wrinkle their
taile, wherein this also is obserued, that they be more likely to appease the gods in sacrifice, that
rather writh & turn their tails to the right hand, than the left. Swine wil be fat and wel larded
in sixtie daies; and the rather, if before you begin to frantk them vp, they be kept altogether from I
meat three daies. Of all other beasts, they are most brutish; inso much as there goes a pleasant
by-word of them, and fitteth them well, *That their life is giuen them in stead of salt*. This is known
for a truth, that when certaine theues had stolne and driuen away a companie of them, the
swinheard hauing followed them to the water side (for by that time were the theues imbarged
with them) cried aloud vnto the swine, as his manner was: whereupon they knowing his voice,
learned all to one side of the vessel, turned it ouer and sunke it, tooke the water, and so swam a-
gaine to land vnto their keeper. Moreouer, the hogs that vse to lead and goe before the heard,
are so well trained, that they wil of themselves goe to the swine-market place within the citie,
& from thence home againe to their maisters, without any guid to direct them. The wild bores
in this kind, haue the wit to couer their tracks with mire, and for the nones to run ouer marsh
ground where the prints of their footing will not be sene; yea and to be more light in running, K
to void their vrine first. Sows also are splayed as well as camels, but two daies before, they be
kept from meat: then hang they by the fore-legs, for to make incision into their matrice, and to
take forth their stones: and by this means they will sooner grow to be fat. There is an Art also
in cookerie, to make the liuer of a sow, as also of a goose, more daintie (and it was the deuise of
M. Apicius) namely, to feed them with drie figges, and when they haue eaten till they bee full,
presently to giue them mead or honied wine to drink, vntill they die with being ouercharged.
There is not the flesh of any other liuing creature, that yeeldeth more store of dishes to the
maintenance of gluttonie, than this; for fittie sundrie sorts of tastes it affordeth, whereas other
haue but one a peece. From hence came so many edicts and proclamations published by the
Censors, forbidding and prohibiting to serue vp at any feast or supper, the belly and paps of a L
sow, the kernels about the neck, the brizen, the stones, the womb, and the fore-part of the bores
head: and yet for all that, *Publius* the Poet and maker of wanton songs, after that he was come
to his freedom, neuer (by report) had supper without an hogs belly with the paps: who also to
that dish gaue the name, and called it *Sumen*. Moreouer, the flesh of wild bores came to be in
great request and was much set by: in such sort, as *Cato* the Censor in his inuectiue orations,
challenged men for brawne. And yet when they made three kinds of meat of the wild bore, the
loine was alwaies serued vp in the mids. The first Romane that brought to the table a whole
bore at once was *P. Sernilius Rullus*, father of that *Rullus*, who in the time that *Cicero* was Con-
sull, published the law *Agraria*, as touching the diuision of lands. See how little while ago it is M
since these superfluities began, which now are taken vp so ordinarily euerie day. And yet the
thing was noted and recorded in the Annals, as strange and rare; no doubt for this intent. To re-
presse these inordinate enormities. One supper then or feast was taxed and reprooued therein
at the beginning: but now, two and three bores at a time are serued vp whole and eaten to-
gether.

CHAP. LII.

¶ Of Parks for wild beasts.

THE first man of the long robe that deuised parks as well for these bores, as for other deere
and sauage beasts, was *Fulvius Lippinus*, who in the territorie of *Tarquinius* began to keepe
and feed wild beasts for his game. And long it was not but others followed his steps, to
wit, *L. Lucellus* and *Q. Hortensius*. Sows of the wild kind bring forth pigs but once a yere; and
the bores in briming time are exceeding fierce and fel: then they fight one with another, they
harden their sides, rubbing them against the bodies of trees, and all to wallow themselves in
the mire, coating their backs with dirt. But they are not so raging then, but the sows in their
B farrowing are much worse, and lightly it is so in all other kind of beasts. Wild bores are not fit
for generation before they be a yere old. The wild bores of India haue two bowing fangs or
rucks of a cubit length, growing out of their mouth, and as many out of their foreheads like to
calues horns. The bristly haire of the wild sort is like to brasse: but of others black. In Arabia
swine will not liue.

CHAP. LIII.

¶ Of Beasts halfe sauage.

THEre is no creature ingenders so soon with wild of the kind, as doth swine: & verily such
hogs in old time they called Hybrides, as a man would say, halfe wild; inso much as this
terme by a translation hath bin attributed to mankind. For so was *C. Antonius*, colleague
with *Cicero* in the Consulship, nicknamed. And not in swine onely, but also in all other liuing
creatures, looke where there be any tame and domestical, you may find also wild and sauage of
the same kind: seeing that euen of wild men there be also many sorts in diuers places, as wee
haue before said. As for the goats kind, how many & how sundry resemblances are to be found
in them of other beasts: for among them you shall haue the roe bucke, the shamois, the wilde
goat called the Eveck, wonderfull swift, albeit his head be loden with huge hornes like sword
scabberds: by these they hang and poise themselves from rockes, namely, when they minde to
D leap from one to another, for by swinging to and fro they skip and jump the more nimble,
and fetch a jerk out to what place they list, as it were forth of an engin. Of this kind be the Origes,
the only beasts, as some thinke, of all others, that are said to haue their haire growing contrari-
wise and turning toward the head. To these belong the Does, and a kinde of fallow Deere cal-
led Pygargi, as also those that are named Strepticerotes, and many other not far vnlike. As for
the former sort they come out of the Alps. These last rehearsed are sent from other parts be-
yond-sea.

CHAP. LIV.

¶ Of Apes and Monkeys.

ALL the kinde of these Apes approach neere of all beasts to the resemblance of a mans
shape: but they differ one from another in the taile. Maruellous crafty and subtil they
be to beguile themselves: for by report, as they see hunters doe before them, they will
imitate them in euery point, euen to besmeare themselves with glew & birdlime, & shoo their
feet within grins and snares, and by that means are caught. *Mtians* saith, that he hath seene
Apes play at cheffe and table: and that at first sight they could know nuts made of waxe from
others. He affirmes also, that when the moon is in the wain, the monkeys & Marmosets (which
in this kinde haue tails) are sad and heauy, but the new moone they adore and ioy at, which
they testifie by hopping and dancing. As for the eclipse of Sun or Moone, all other foure foo-
F ted beasts also do greatly dread and feare. The she Apes of all sorts are wondrous fond of their
little ones: and such as are made tame within house will carry them in their armes all about so
soone as they haue brought them into the world, keepe a shewing of them to euery bodie, and
they take pleasure to haue them dandled by others, as if thereby they tooke knowledge that
folke ioyed for their safe deliuerance: but such a culling and hugging of them they keep, that
in

in the end with very claspings and clipping they kill them many times. Apes that be headed and long snouted like dogs, and thereof called Cynocephali, are of all other most curst, shrewd and unhappy: like as the Marmozets and Monkeys called Sphinges & Satyri, are gentlest and most familiar: as for those called Callitriches, they be clean of another form & shape all over in a manner; they haue a beard on their visage, & the forepart of their taile spreadeth broad. But this creature is said to liue in no other climat but Æthiopia, where it breedeth.

CHAP. LV.

¶ Of Hares and Connies.

OF Hares also there be many sorts: vpon the Alps & such high mountains they be white of colour so long as the snow lieth; and it is verily thought, that all Winter long they liue with eating of snow: for surely when it is thawed and melted, all the yere after they be brown and reddish as before: and a creature it is otherwise bred in extreme and intolerable cold. Of the Hares kind are they also which in Spain they call Connies, which are exceeding fruitfull, and of wonderfull increase: in so much, as hauing deuoured all the corn in the field before haruest, in the Balear Islands, they brought thereby a famine vpon the people. There is a most daintie dish serued vp at the table, made of Leuerets or rabbits, either cut out of the dams bellies, or taken from them when they are suckers, without cleansing them at all of the garbage, and such the Latines call Laurices. It is know for certain, that the Islanders of Majorca & Minorca made means to the Emperor *Augustus Caesar*, for a power of soldiers to destroy the infinit increase of Connies among them. Ferrets are in great account for chasing and hunting these Connies: the manner is to put them into their earths, which within the ground haue many waies and holes like mines, and thereupon these creatures are called *Cuniculi*: and when they are within, they so course the poore Connies out of their earth, that they are soon taken aboue ground at the mouth of their holes. *Archebius* writes, that looke how many receptacles & waies of passage the Hare hath for his dung and excrements, so many yeares old he is iust. And verily some haue more than others. The same writer is of opinion, that euery hare is both male and female, and that any of them can breed without the bucke. Certes herein Nature hath shewed her bounty and goodnesse, in that she hath giuen this creature (so good to eat, and so harmlesse otherwise) the gift of fertilitie and fruitfull wombe. The Hare, naturally exposed to be a prey and game for all men, is the only creature, vnles it be the Connie again called *Dasipus*, which after it be once with yong, conceiue again vpon it: in so much as at one time shee hath some Leuerets sucking of her, others in her belly; and those not of the same forwardnesse, for some of them are couered with haire, others are naked without any downe; and there be againe of them that as yet are not shapen at all, but without all forme. Moreouer, men haue assaied to make cloath of Hares and Connies haire: but in the hand they are not so soft as is the fur vpon the skin or case: neither will they last, by reason that the haire is short and will soon shed.

CHAP. LVI.

¶ Of Beasts half tame.

AS for Hares, seldome be they made tame and to come to hand; and yet iustly they cannot be simply called wild: for many other such creatures there be besides, that neither are savage, nor tame and gentle, but of a middle nature betwixt both: as namely among flying fowles in the aire, the Swallow: likewise the Bee: and among fishes the Dolphin in the sea.

CHAP. LVII.

¶ Of Mice and Rats, Dormice, Reer-mice, and Bats.

IN the rank of those that be neither tame nor wild, many haue ranged the Mice and rats that haunt our houses. A creature this is of no smal reckoning for presaging somewhat to a state, by some strange and prodigious tokens. By gnawing the siluer shields & bucklers at Lavinium, they portended and foresheued the Marston war. Vnto *Carbo* the L. Generall, by eating of his hose garters and shooe-strings at Clusium they prognosticated his death. Many sorts there

A there be of them in the country of Cyrene, some with a broad flat forehead, others with a sharp pointed: and there be of them seen to haue sharp prickles like to vrchins or hedge-hogs. *Theophrastus* reporteth, that these vermin hauing dispeopled the Isle Gyarus, and driuen away the inhabitants, gnawed and deuoured euery thing they could meet withal, euen to their very iron. And surely it seemes that is their nature so to doe: for euen amongst the Chalybes they serue them so, in eating their iron and Steele within their very forges: yea, & in gold mines they play the like part: & therefore being caught, their bellies be ript by the pioners in the mine, where they euermore find their stolen gold again. See what delight this creature takes in the eating. We read in the Chronicles, that whiles *Annibal* lay in siege before the towne Castilinum, a rat was sold within the town for 200 Sesterces: the man who bought it at that price liued; but the party who sold it through greedines of money died for hunger. By the learning of Soothsayers obserued it is, that if there be store of white ones bred, it is a good signe and presageth prosperitie. And in truth our stories are full of the like examples, and namely, that if rats be heard to cry or squeak in the time of ceremoniall taking the Auspices and signes of birds, all is marred, and that businesse clean dasht. *Nigidius* saith, that rats lie close hidden all winter, like as Dormice. By the Edicts of the Censors, and principally by an Act of *M. Scaurus* in his Consulship, provided it was, & streight order taken, that no Rats, Mice, or Dormice should be serued vp to the table at their great suppers and feasts: like as all shell fish or fowle set out of forreine countries far remote. Counted are Dormice betwene tame and wilde: and verily he that first denised to keepe wilde bores in parkes, found means also to nourish and feed these creatures in great tuns, pipes, and drifts. In the experiment and triall whereof this hath bin found & obserued, That willingly these little creatures will not sort together vnlesse they were countmen as it were, and bred in one & the same Forrest: and if it chance that there be intermingled among them any strangers, to wit, such as had either some riuer or mountain between the places where they were bred, they kil one another with fighting. The yong Dormice are exceeding kind and louing to their sires that begat them; for when they be old and feeble, full tenderly will they feed and nourish them. They renew their age euery yere by sleeping all winter; for they lie by it close snug all the while, and are not to be seen: but come the sommer once they be yong and fresh againe. And thus the field mice likewise take their rest, and do the same.

D

CHAP. LVIII.

¶ What Creatures liue not but in certaine places.

A Wonderfull thing it is to see, that Nature hath not only brought forth diuers creatures in fundrie Countries, but also in one region vnder the same climate hath denied some of them to liue in euery corner thereof. And namely in the Forrest of Moesia in Italie, these Dormice are found but only in one part thereof. And in Lycia, the wild goats, roe-bucks, and Does neuer passe the mountaines that confine vpon the Syrians: no more than the wilde Asses transmount that hil which diuides Cappadocia from Cilicia. Within Hellepont the Stags and Hinds neuer go forth and enter into the marches of other countries: and those about *Arginussa* passe not the mountaine *Elatus*: which may be knowne by this, that all vpon that hill haue their eares marked and slit. In the Island *Poroselenum* the weezels will not crosse ouer the highway. And about *Lebadia* in Boeotia, those moldwarps or warts that are brought thither from other parts, will not abide the very soile, but flie from it; which neere-by in *Orchomenus*, vndermine and hollow all their corn fields: and such store there is of them, that I haue seen all the hangings, carpets, counterpoints, and couerlets of chambers made of their skinnies. See how men for no religion and feare of the gods will be kept from taking their pleasures and making their delights of these creatures, otherwise prodigious & portending things to come. The strange Hares that be brought into *Ithaca* will not liue there, but seeking to escape, are found dead vpon the very banks of the sea side. In the Island *Ebusus* be no Connies at all: and yet in Spain and the Balear Isles there are so many, that they pester the whole country. Frogs were euer in *Cyrene* naturally mute, and would not cry: but brought there were thither out of the continent such as would crie in the water: and that whole kind still remaineth vocal. In the Island *Seriphos* you shall not yet heare a Frogge to cry: let the same be carried forth to other

other places, they will keep a singing as well as the rest. And (by report) the like hapned in a lake of Theffaly named Sicendus. In Italy the hardy shrews are venomous in their biting: but passe ouer the Apennine once there are no more such to be found. In what country soeuer they be, let them go ouer the tract of a cart wheele they die presently. In Olympus a mountaine of Macedony there are no wolues, ne yet in the Isle of Candy: and there verily are to be found no Foxes nor Beares, and in one word, no hurtfull or noisome beast, vnlesse it be a kinde of spider called *Phalangium*, whereof we will speake more in due time and place. And that which is more wonderfull, in the same Isle there are no stags or hinds, saue only in the region and quarter of the Cydoniates: no wild bores likewise, nor the fowle called the Godwit or Attogene, ne yet Vrchins. To conclude, in Africk ye shall find no wild bores, no Stags and Hinds, no roe-bucks and Does, ne yet Beares.

CHAP. LIX.

¶ *What Creatures are hurtfull to strangers.*

Now, some liuing creatures there be that do no harm at all to the inhabitants of the same countries, but kill all strangers. Namely, certain serpents in Tirinthe, which are supposed to breed of themselves out of the very earth. Semblably, in Syria there be snakes, and specially along the banks of Euphrates, that will not touch the Sirians lying along asleep: nay, if a man that leans vpon them be stung or bitten by them, he shall find no hurt or mischief thereby. But to men of all other nations whatsoeuer they are most spightfully bent, them they will with great greedinesse eagerly assaile and fly vpon, yea, and kill them with extreme paine and anguish: and therefore it is that the Sirians destroy them not. Contrariwise *Aristotle* reporteth, That in Lamos (a mountain in Caria) the Scorpions will do no harm to strangers, marie the inhabitants of the same country they will sting to death. Now let vs proceed to other liuing creatures besides those of the land, and discourse of their sundry sorts and kinds.



THE NINTH BOOKE OF THE HISTORIE OF NATVRE,

WRITTEN BY C. PLINIVS
SECVNDVS.

CHAP. I.

¶ *The nature of water Creatures.*



Haue thus shewed the nature of those beasts that liue vpon the land, and therein haue some societie & fellowship with men. And considering, that of all others besides in the world, they that flie be the least, we will first treat of those fish that keep in the sea, not forgetting those also either in running fresh riuers or standing lakes.

CHAP. II.

¶ *What the reason is why the sea should breed the greatest liuing creatures.*

The waters bring forth more store of liuing creatures, and the same greater than the land. The cause whereof is euident, euen the excessiue abundance of moisture. As for the fowls & birds, who liue hanging, as it were, & howering in the aire, their case is otherwise. Now

A in the sea, being so wide, so large and open, readie to receiue from heauen about the genitall seeds and causes of generation, being so soft and pliable, so proper & fit to yeeld nourishment and encrease; assisted also by Nature, which is neuer idle, but alwaies framing one new creature or other: no maruell it is if there are found so many strange and monstrous things as there be. For the seeds and vniuersall elements of the world are so interlaced sundry waies, and mingled one within another, partly by the blowing of the winds, and partly with the rolling and agation of the waues, insomuch as it may truly be said, according to the vulgar opinion, that whatsoeuer is engendred and bred in any part of the world besides, is to be found in the sea: and many more things in it, which no where else are to be seen. For there shall ye meet with fishes, resembling not onely the forme and shape of land creatures liuing, but also the figure and fashion of many things without life: there may one see bunches of grapes, swords, and sawes, represented; yea, and also cowcumpers, which for colour, smell, and taste, resembleth those growing vpon the earth. And therefore we need the lesse to wonder, if in so little shell fishes as are cockles, there be somewhat standing out like horse-heads.

CHAP. III.

¶ *Of the monstrous fishes in the Indian sea.*

The Indian sea breedeth the most and biggest fishes that are: among which, the Whales and Whirlepooles called *Baleenæ*, take vp in length as much as foure acres or arpens of land: likewise the Pristes are two hundred cubits long: and no maruell, since Locusts are there to be found of foure cubits in length: and yeeles within the riuier Ganges of thirtie foot in length. But these monstrous fishes in the sea, are most to be seen about the middest of Summer, & when the daies be at the longest with vs. For then by the means of whirle winds, storms, winds, and blustering tempests which come with violence down from the mountains and promontories, the seas are troubled from the very bottome, and turned vpside downe: whereupon the surging billowes thereof, raise these monsters out of the deep, and roll them vp to be seen. For in that manner so great a multitude of Tunnies were discovered and arose, that the whole armada of king *Alexander* the great, seeing them comming like to an armie of enemies in order of battell, was driuen to range & make head against them, close vnited together: for otherwise, if they had failed scattering asunder, there had bin no way to escape, but ouerturned they had bin, with such a force and sway came these Tunnies in a skull vpon them. And verily, no voice, crie, hollaing and houting, no nor any blowes and raps affrighted this kind of fish, only at some cracke or crashing noise they be terrified: and neuer are they troubled and disquieted so much as when they perceiue some huge thing ready to fall vpon them.

In the red sea there lies a great demie Island named Cadara, so farre out into the sea, that it maketh a huge gulfe vnder the wind, which king *Prothomæus* was 12 daies and 12 nights a rowing through: forasmuch as there is no wind at all vses to blow there. In this creeke so close and quiet, there be fish and Whales grow to that bignes, that for their very weight and vnweldines of their bodie, they are not able to stirre. The Admirals and other captaines of the fleet of the foresaid *Alexander* the great, made report, That the Gedrosi, a people dwelling vpon the riuier *Arbis*, vse to make of such fishes chawes, the dores of their houses; also that they lay their bones ouerthwart from one side of the house to another, in stead of beames, joists and rafters to beare vp their floores and rouses: and that some of them were found to be fortie cubits long.

In those parts there be found in the sea certaine strange beasts like sheep, which goe forth to land, feed vpon the roots of plants and herbes, and then returne againe into the sea. Others also which are headed like Horses, Asses, and Bulls: and those many times eat downe the standing corne vpon the ground.

CHAP. IIII.

¶ *Which be the greatest fishes in any coast of the Ocean sea.*

The biggest and most monstrous creature in the Indish Ocean, are the whales called *Pristis* & *Baleenæ*. In the French Ocean there is discovered a mighty fish called *Physeter*, [i.e. a Whirlepoole] rising vp aloft out of the sea in manner of a column or pillar, higher than the

the very sailes of the ships: and then he spouteth and casteth forth a mightie deale of water, as it were out of a conduit, enough to drowne and sinke a ship. In the Ocean of Gades, betweene Portugale and Andalusia, there is a monstrous fish to be seen like a mightie great tree, spreading abroad with so mightie armes, that in regard thereof onely, it is thought verily it neuer entered into the streights or narrow sea there by of Gibraltar. There shew themselves otherwhiles fishes made like two great wheelles, and thereupon so they be called: framed distinctly with foure armes, representing as many spokes: and with their eies they seem to couer close the naues from one side to the other, wherein the said spokes are fastened.

CHAP. V.

¶ Of Tritons, Nereides, and sea-Elephants, and their formes.

IN the time that *Tiberius* was Emperour, there came vnto him an Embassador from *Ulispon*, sent of purpose to make relation, That vpon their sea-coast there was discovered within a certain hote, a certain sea goblin, called Triton, sounding a shell like a trumpet or cornet: and that he was in forme and shap like those that are commonly painted for Tritons. And as for the Meremaids called Nereides, it is no fabulous tale that goes of them: for look how painters draw them, so they are indeed: onely their bodie is rough & skaled all ouer, euen in those parts wherein they resemble a woman. For such a Mermaid was seen and beheld plainly vpon the same coast neere to the shore: and the inhabitants dwelling neere, heard it a far off when it was a dying, to make pittous mone, crying & chattering very heauily. Moreouer, a lieutenant or gouernor vnder *Augustus Caesar* in Gaule, aduertised him by his letters, That many of these Nereides or Mermaids were seen cast vpon the sands, and lying dead. I am able to bring forth for mine authors diuers knights of Rome, right worshipfull persons and of good credit, who testifie, that in the coast of the Spanish Ocean neer vnto Gades, they haue seen a Mere-man, in euery respect resembling a man as perfectly in all parts of the bodie as might be. And they report moreouer, that in the night season he would come out of the sea aboard their ships: but look vpon what part soeuer he settled, he waied the same downe, & if he rested and continued there any long time, he would sinke it cleane. In the daies of *Tiberius* the Emperour, in a certain Island vpon the coast of the prouince of Lions, the sea after an ebbe left vpon the bare sands 300 sea-monsters and aboue, at one flote together, of a wonderfull varietie and bignesse, differing asunder. And there were no fewer found vpon the coast of the Santones. And among the rest there were sea-Elephants and rams, with teeth standing out; & hornes also, like to those of the land, but that they were white like as the fore-said teeth: ouer & besides, many Mermaids. *Turanus* hath reported, That a monster was driuen and cast vpon the coast of Gades, betweene the two hindmost fins whereof in the taile, were 16 cubits: it had 122 teeth, whereof the biggest were a span or nine inches in measure, and the least halfe a foot. *M. Scaurus* among other strange and wonderfull sights that he exhibited to the people of Rome, to doe them pleasure in his Edileship, shewed openly the bones of that sea-monster, before which ladie *Andromeda* (by report) was cast to be deuoured, which were brought to Rome from Ioppe, a towne in Iudæa: and they caried in length fortie foot: deeper were the ribs than any Indian Elephant is high, and the ridge-bone a foot and halfe thicke.

CHAP. VI.

¶ Of the Balænes and Orce.

THESE monstrous Whales named Balæne, otherwhiles come into our seas also. They say that in the coast of the Spanish Ocean by Gades, they are not seen before midwinter when the daies be shortest: for at their set times they lie close in a certain calme deep and large creeke, which they chuse to cast their spawn in, and their delight aboue all places to breed. The Orce, other monstrous fishes, know this full well, and deadly enemies they be vnto the foresaid whales. And verily, if I should pourtrait them, I can resemble them to nothing else but a mightie masse and lump of flesh without all fashion, armed with most terrible, sharpe, and cutting teeth. Well, these being ware that the Whales are there, breake into this secret by-creek out of the way, seeke them out, and if they meet either with the young ones, or the dammes that haue newly

A newly spawn'd, or yet great with spawn, they all to cut & hack them with their trenchant teeth: yea, they run against them as it were a foist or ship of warre armed with sharp brazen pikes in the beake-head. But contrariwise, the Balænes or Whales aforesaid, that cannot wind and turne aside for defence, and much lesse make head and resist; so vnwieldie as they bee by reason of their owne weightie and heauie bodie, (and as then either big bellied, or else weakened lately with the paines of trauell and caluing their young ones) haue no other meanes of helpe and succor but to shoot into the deepe, and gaine sea-room to defend themselves from the enemy. On the other side, the Orce labour (to cut them short of their purpose) to lie betweene them and home in their very way, and otherwhiles kill them vnwares in the streights, or diue them vpon the shelues and shallows, or else force them against the very rocks, & so bruiſe them.

B When these combats and fights are seen, the sea seemes as if it were angry with it selfe: for albeit no winds are vp, but all calme in that creek and gulfe, yet ye shall haue waies in that place where they encounter (with the blasts of their breath, and the blowes giuen by the assailant) so great, as no tempestuous whirle windes whatsoeuer are able to raise. In the haue of Ostia likewise there was discovered one of these Orcas, and the same assailed by *Claudius* the Emperour. It chanced to come as he was making the said harbour or pere, drawne and trained thither with the sweetnes of certaine beasts hides that were brought out of Gaule, and were cast away and perished by the way. Of them for certaine daies she had fed, and still following them, with the weight of her heauie bodie had made a furrow and channel (as it were) with her bellie in the bottome among the shelues: and by reason of the flowing of the sea she was so inuested and compassed in with the sands, that by no means possible she could turn about: but stil while she goes after these hides whereof she fed, she was by the billows of the sea cast aſtore on the shore, so as her back was to be seene a great deale aboue the water, much like to the bottome or keele of a ship turned vp side downe. Then the Emperour commanded to draw great nets and cords with many folds along the mouth of the haue on euery side behind the fish, himselfe accompanied with certaine Pretorian cohorts, for to shew a pleasant sight vnto the people of Rome, came against this monstrous fish, and out of many hoies and barks the souldiers launced darts and jauelines thicke. And one of them I saw my selfe sinke downe right with the abundance of water that this monstrous fish spouted and filled it withall. The Whales called Balæne haue a certaine mouth or great hole in their forehead, and therefore as they swim aſtore aloft on the water, they send vp on high (as it were) with a mighty strong breath a great quantity of water when they list, like stormes of raine.

CHAP. VII.

¶ Whether fish do breath and sleep, or no.

ALL writers are fully resolu'd in this, That the Whales abouesaid, as well the Balæne as the Orce, and some few other fishes bred & nourished in the sea, which among other inward bowels haue lights, doe breath. For otherwise it were not possible, that either they or any other beast, without lights or lungs should blow: and they that be of this opinion, suppose likewise, that no fishes hauing gills, do draw in and deliuer their wind again to and fro: nor many other kinds besides, although they want the foresaid gills. Among others, I see that *Aristotle* was of that mind, and by many profound and learned reasons perswaded & induced many more to hold the same. For mine owne part, if I should speake frankly what I think, I professe that I am not of their judgment. For why? Nature if she be so disposed, may giue in steed of light some other organs and instruments of breath: to this creature one, to that another: like as many other creatures haue another kind of moist humor in lieu of blood. And who would maruel, that this vitall spirit should pierce within the waters, considering that he seeth evidently how it riseth againe and is deliuered from thence: also how the aire entreth euen into the earth, which is the grofſest & hardest of all the elements? As we may perceiue by this good argument, that some creatures, which albeit they be alwaies couered within the ground, yet liue and breath neuertheless, and namely, the Wants or Mold-warps. Moreouer, I haue diuers pregnant & effectual reasons inducing me to beleue, that all water creatures breathe each one after their manner, as Nature hath ordained. First and principally, I haue obserued oftentimes by experience, That fishes evidently breath and pant for wind (after a sort) in the great heat of Summer: as also that they

they yawne and gape when the weather is calme & the sea still. And they themselves also who hold the contrarie, confesse plainly, that fishes doe sleepe. And if that be true, How, I pray you, can they sleep if they take not their wind? Moreover, whence come those bubbles which continually are breathed forth from vnder the water? and what shall we say to those shell fishes which wax and decay in substance of bodie, according to the effect of the Moones encrease or decrease? But about all, fishes haue hearing and smelling, and, no doubt both these senses are performed and maintained by the benefit and matter of the aire: for what is smell and sent, but the verie aire, either infected with a bad, or perfumed with a good sauour? Howbeit I leaue euery man free to his own opinion, as touching these points. But to returne againe to our purpose: this is certaine, that neither the Whales called *Balaena*, nor the Dolphins, haue any gills: and yet do both these fishes breathe at certaine pipes and conduits, as it were reaching downe into their lights: from the forehead, in the Balenes; and in the Dolphins, from the backe. Furthermore, the Sea-calues or Seales, which the Latines call *Phoca*, doe both breath and sleepe vpon the drie land. So do the sea Tortoises also, whereof we will write more anon.

CHAP. VIII.

¶ Of Dolphins.

THE swiftest of all other living creatures whatsoeuer, & not of sea-fish only, is the Dolphin, quicker than the flying fowle, swifter than the arrow shot out of a bow. And but that this fish is mouthed far beneath his snout, and in manner towards the mids of his belly, there were not a fish could escape from him, so light and nimble he is. But nature in great providence fore-seeing so much, hath giuen these fishes some let & hinderance, for vnlesse they turned vp-right much vpon their backe, catch they can no other fish: and euen therein appeareth most of all their wonderfull swiftnesse and agilitie. For when the Dolphins are driuen for very hunger to course and pursue other fishes down into the bottom of the sea, and thereby are forced a long while to hold their breath, for to take their wind againe, they lance themselves aloft from vnder the water as if they were shot out of a bow; and with such a force they spring vp againe, that many times they mount ouer the very sailes and mastes of ships. This is to be noted in them, that for the most part they sort themselves by couples like man and wife. They are with yong nine moneths, and in the tenth bring forth their little ones, and lightly in Summer time; and otherwhiles they haue two little dolphins at once. They suckle them at their teats, like as the whales or the Balenes do: yea, & so long as their little ones are so yong that they be feeble, they carry them too and fro about them: nay when they are growne to be good big ones, yet they beare them companie still a long time, so kind and louing be they to their yong. Young Dolphins come very speedily to their growth, for in ten yerres they are thought to haue their full bignes: but they liue thirtie yerres, as hath bin known by the experience and triall in many of them, that had their taile cut for a marke when they were yong, and let go againe. They lie close euery yere for the space of thirtie daies, about the rising of the Dog-starre; but it is strange how they be hidden, for no man knowes how: and in very deed a wonder it were, if they could not breath vnder the water. Their manner is, to breake forth of the sea and come aland, and why they should do so, it is not known: for presently as soon as they touch the dry ground, they die: and so much the sooner, for that their pipe or conduit aboue-said incontinently closeth vp and is stopped. Their tongue stirreth within their heads, contrary to the nature of all other creatures living in the waters: the same is short and broad fashioned like vnto that of a swine. Their voice resembleth the pittifull groning of a man: they are saddle-backed, & their snout is camoise and flat, turning vp. And this is the cause that all of them (after a wonderfull sort) know the name *Simo*, and take great pleasure that men should so call them. The Dolphin is a creature that carries a louing affection not only vnto man, but also to musicke: delighted he is with harmony in song, but especially with the sound of the water instrument, or such kind of pipes. Of a man he is nothing affraid, neither auoides from him as a stranger: but of himselfe meeteth their ships, plaith and disportes himselfe, and fetcheth a thousand frisks and gamboles before them. He will swim along by the mariners, as it were for a wager, who should make way most speedily, and alwaies outgoeth them, saile they with neuer so good a fore-wind.

In the daies of *Augustus Caesar* the Emperour, there was a Dolphin entred the gulfe or poole *Lucrinus*,

A *Lucrinus*, which loued wondrous well a certain boy a poore mans son: who vsing to goe euery day to schoole from Baianum to Puteoli, was wont also about noone-tide to stay at the water side, and to call vnto the Dolphin, *Simo*, *Simo*, and many times would giue him fragments of bread, which of purpose he euer brought with him, and by this meanes allured the Dolphin to come ordinarily vnto him at his call. [I would make scruple and bash to insert this tale in my storie and to tell it out, but that *Mecenas Fabianus*, *Flavius Alfius*, and many others haue set it downe for a truth in their chronicles.] Well in proesse of time, at what houre soeuer of the day, this boy lured for him & called *Simo*, were the Dolphin neuer so close hidden in any secret and blind corner, out he would and come abroad, yea and skud amaine to this lad: and taking bread and other victuals at his hand, would gently offer him his back to mount vpon, and then downe went the sharpe pointed prickles of his fins, which he would put vp as it were within a sheath for fear of hurting the boy. Thus when he had him once on his back, he would carry him ouer the broad arme of the sea as farre as Puteoli to schoole; and in like manner conuey him backe againe home: and thus he continued for many yeeres together, so long as the child liued. But when the boy was fallen sicke & dead, yet the Dolphin gaue not ouer his haunt, but usually came to the wonted place, & missing the lad, seemed to be heauie and mourne againe, vntill for very grieffe & sorrow (as it is doubtles to be presumed) he also was found dead vpon the shore.

Another Dolphin there was not many yeeres since vpon the coast of Affricke, neere to the citie Hippo, called also *Diarrhytus*, which in like manner would take meat at a mans hand, suffer himselfe gently to be handled, play with them that swam and bathed in the sea, and carrie on his backe whosoever would get vpon it. Now it fell out so, that *Flautianus* the Proconfull or lieutenant Generall in Affricke vnder the Romans, perfumed and besmeared this Dolphin vpon a time with a sweet ointment: but the fish (as it should seem) smelling this new & strange smell fell to be drowse and sleepe, and lulled to and fro with the waues, as if it had bin halfe dead: and as though some iniurie had bin offered vnto him, went his way and kept aloofe, and would not conuerse any more for certaine moneths with men, as before time. Howbeit in the end he came againe to Hippo, to the great wonder & astonishment of all that saw him. But the wrongs that some great persons and lords did vnto the citizens of Hippo, such I mean as vsed to come for to see this sight: and namely, the hard measure offered to those townesmen, who to their great cost gaue them entertainment, caused the men of Hippo to kill the poore Dolphin.

D The like is reported in the citie Iassos, long before this time: for there was seene a Dolphin many a day to affect a certaine boy, so as he would come vnto him wherefoeuer he chanced to espy him. But whiles at one time about the rest he followed egerly after the lad going toward the towne, he shot himselfe vpon the dry sands before he was aware, and died forthwith. In regard hereof, *Alexander* the Great ordained that the said yong boy should afterwards be the chiefe priest and sacrificer to Neptune in Babylon: collecting by the singular fancie that this Dolphin cast vnto him, That it was a great signe of the speciall loue of that god of the sea vnto him, and that he would be good and gracious to men for his sake.

E *Episidemus* writeth, that in the same Iassus there was another boy named *Hermias*, who hauing used likewise to ride vpon a Dolphin ouer the sea, chanced at the last in a sodaine storme to be ouerwhelmed with waues as he sat vpon his backe, and so died, and was brought backe dead by the Dolphin: who confessing as it were that he was the cause of his death, would neuer retire againe into the sea, but launced himselfe vpon the sands, and there died on the drie land.

The semblable happened at Naupactum, by the report of *Theophrastus*. But there is no end of examples in this kinde: for the Amphilochians and Tarentines testifie as much, as touching Dolphins which haue bin enamoured of little boies: which induceth me the rather to beleue the tale that goes of *Arion*. This *Arion* being a notable musition & plaier of the harpe, chanced to fall into the hands of certain mariners in the ship where he was, who supposing that he had good store of money about him, which he had gotten with his instrument, were in hand to kill him and cast him ouer boord for the said monie, and so to intercept all his gaines: he, seeing himselfe at their deuotion and mercie, besought them in the best manner that he could deuise, to suffer him yet before he died, to play one fit of mirth with his harpe; which they granted: (at his musicke and sound of harpe, a number of Dolphins came flocking about him:) which done, they turned him ouer shipbord into the sea; where one of the Dolphins tooke him vpon his backe, and carried him safe to the bay of Tanarus.

To conclude and knit vp this matter: In Languedoc within the prouince of Narbon, and in the territorie of Nemaufum, there is a standing poole or dead water called Latera, wherein men and Dolphins together, vse to fish: for at one certain time of the yeare, an infinite number of fishes called Mulletts, taking the vantage of the tide when the water doth ebbe, at certain narrow weares and passages with great force break forth of the said poole into the sea: and by reason of that violence, no nets can be set and pitched against them strong enough to abide and beare their huge weight, and the streame of the water together, if so be men were not cunning and craftie to wait and elpie their time to lay for them, and to entrap them. In like manner the Mulletts for their part, immediately make speed to recouer the deepe, which they do very soon by reason that the channell is neere at hand: and their onely hast is for this, to escape and passe that narrow place which affordeth opportunitie to the fishers to stretch out and spread their nets. The fisher-men being ware thereof, and all the people besides (for the multitude knowing when fishing time is come, run thither, and the rather for to see the pleasant sport) crie as lowd as euer they can to the Dolphins for aid, & call *Simo, Simo*, to help to make an end of this their game and pastime of fishing. The Dolphins soon get the care of their crie, and know what they would haue; and the better, if the North-winds blow and carrie the sound vnto them: for if it be a Southerne wind, it is later ere the voice be heard, because it is against them. Howbeit, be the wind in what corner soeuer, the Dolphins resort thither flock-meale, sooner than a man would thinke, for to assist them in their fishing. And a wondrous pleasant sight it is to behold the squadrons as it were of those Dolphins, how quickly they take their places and be aranged in battell array euen against the very mouth of the said poole, where the Mulletts vse to shoot in: and to the sea: to see (I say) how from the sea, they oppose themselves and fight against them; and driue the Mulletts (once affrighted and skared) from the deep, vpon the shelues. Then come the fishers and beset them with net and toile, which they beare vp and fortifie with strong forkes: howbeit for all that, the Mulletts are so quicke & nimble, that a number of them whip ouer, get away, and escape the nets. But the Dolphins then are readie to receiue them: who contenting themselves for the present to kill only, make foule worke and hauocke among them; & put off the time of preying and feeding vpon, vntill they haue ended the battell & atchieued the victorie. And now the skirmish is hot, for the Dolphins also perceiuing also the men at worke, are the more egre and courageous in fight, taking pleasure to be enclosed within the nets, and so most valiantly charge vpon the Mulletts: but for feare lest the same should giue an occasion vnto the enemies & prouoke them to retire and flie backe; between the boats, the nets, and the men there swimming, they glide by so gently and easily, that it cannot be seen where they gat out. And albeit they take great delight in leaping, & haue the cast of it, yet none assaieth to get forth, but where the nets lie vnder them: but no sooner are they out, but presently a man shall see braue pastime between them, as they scuffle & skirmish as it were vnder the rampier. And so the conflict being ended, and all the fishing sport done, the Dolphins sal to spoile and eat those which they killed in the first shock and encounter. But after this seruice performed, the Dolphins retire not presently into the deep againe, from whence they were called, but stay vntill the morrow, as if they knew very well that they had so carried themselves, as that they deserued a better reward than one daies refectiō and victuals: and therefore contented they are not and satisfied, vnlesse to their fish they haue some sops and crums of bread giuen them soaked in wine, & that their bellies full. *Mutianus* makes mention of the semblable maner of fishing in the gulfe of Iaffos: but herein is the difference, for that the Dolphins come of their own accord without calling, take their part of the bootie at the fishers hands: and euery boate hath a Dolphin attending vpon it as a companion, although it be in the night season & at torch light.ouer and besides, the Dolphins haue a kind of common-wealth and publick society among themselves: for it chanced vpon a time, that a king of Caria had taken a Dolphin, and kept him fast as a prisoner within the harbor: whereupon a mighty multitude of other Dolphins resorted thither, and by certain signes of sorrow and mourning that they made, euident to be perceiued and vnderstood, seemed to craue pardon and mercie for the prisoner: and neuer gaue ouer vntill the king had giuen commandment that he should be enlarged and let goe. Also the little ones are euermore accompanied with some one of the bigger sort, as a guide to guard & keep him. To conclude, they haue bene seene to carry one of their fellowes when he is dead, into some place of securitie, that he should not be deuoured and torne of other sea-monsters.

CHAP. IX.

¶ Of Porpusses.

The Porpusses, which the Latines call *Tursiones*, are made like the Dolphins: howbeit they differ, in that they haue a more sad and heauie countenance: for they are nothing so gamesome, playfull, and wanton, as be the Dolphins: but especially they are snouted like dogges when they snarle, grin, and are readie to doe a shewd turne.

CHAP. X.

¶ Of sea Tortoises, and how they are taken,

Here be found Tortoises in the Indian sea so great, that one only shel of them is sufficient for the roufe of a dwelling house. And among the Islands principally in the red sea, they vse Tortoise shells ordinarily for boats and wherries vpon the water.

Many waies the fisher-men haue to catch them; but especially in this manner: They vse in the mornings when the weather is calm and still, to stote aloft vpon the water, with their backs to be seen all ouer: and then they take such pleasure in breathing freely & at libertie, that they forget themselves altogether: insomuch as their shell in this time is so hardened and baked with the sun, that when they would they cannot diue and sinke vnder the water againe, but are forced against their wills to stote aboue, and by that meanes are exposed as a prey vnto the fishermen. Some say that they go forth in the night to land for to feed, where, with eating greedily, they wearie, so that in the morning, when they are returned again, they fall soon asleep aboue the water, and keepe such a snorting and routing in their sleepe, that they bewray where they be, and so are easily taken: and yet there must be three men about euery one of them: and when they haue swom vnto the Tortoise, two of them turne him vpon his backe, the third casts a cord or halter about him, as hee lyeth with his belly vpward, and then is he haled by many more together, to the land. In the Phœnician sea, they make no great ado to take them; for why, at a certaine time of the yeere they resort of themselves by great multitudes in skulls vp into the riuer Eleutherius.

The Tortoise hath no teeth, but the sides and brimmes of his neb or becke, are sharpe and keene: whereof the vpper part or claw shutteth close vpon the nether, like to the lid of a boxe. In the sea they liue of muscles, cockles, and such small shell-fishes, for their mouths are so hard that they be able to crush and break stones therewith. Their manner is to goe aland, where among the grasse they lay egges as bigge as birds egges, to the number commonly of a hundred. When they haue so done, they hide them within the earth in some little hole or gutter, sure enough from any place where the water commeth, they couer them with mould, beat it hard downe with their brest, and so pat it smooth, and in the night time sit vpon them: they couie a whole yeare before they hatch. Some say, that the looking wistly vpon their egges with their eies serueth in stead of sitting. The female flieth from the male, and will not abide to engender, vntill such time as he pricketh her behind and sticketh somewhat in her taile for running away from him so fast.

The Troglodites haue among them certaine Tortoises, with broad hornes like the pegs in a Lute or Harpe, and the same will wagge and stirre so, as in swimming they helpe themselves therewith, and are guided and directed by them. And this kind of Tortoise is called *Celtium*: of exceeding great bignesse, but rare to be found, and hard to come by: for their exceeding sharpe prickes like rockes, among which they keepe, fright the *Chelonophagi* (who delight to feed vpon them) that they dare not search after them. And the Troglodites, vnto whom these Tortoises vse to swim, adore them as holy and sacred things.

There be also land Tortoises (called thereupon in the workes that are made of them in pannell wife, *Chersinae*) found in the deserts and wildernesses of Affrick, and principally in that part which is drie and full of sands: and they are thought to liue on nothing else but the moist dew. And in very truth, no other liuing creature there breedeth besides them.

CHAP. XI.

¶ Who first deuised the cleauing of Tortoise shells into thin plates like pannell.

THe first man that inuented the cutting of Tortoise shells into thin plates, therewith to feeble beds, tables, cupbords, and presses, was *Carbilius Pollio*, a man very ingenious and inuentiue of of such roies, seruing to riot and superfluous expence.

CHAP. XII.

¶ A diuision of water beasts into their seuerall kindes.

THe creatures that breed and liue in the water, be not all couered and clad alike: for some haue a skin ouer them, and the same hairie, as the Seales and Water horses. Others haue but a bare skin, as the Dolphins. There be again that haue a shell like a barke, as the Tortoises: and in others, the shell is as hard as the flint, and such be the oysters, muscles, cockles, and winkles. Some be couered ouer with crusts or hard pills, as the locusts: others haue besides them, sharpe prickles, as the vrchins. Some be scaled, as fishes: others are rough coated, as the Soles, and with their skins folke vse to polish and smooth wood and yuorie. Some haue a tender and soft skin, as Lampreys: others none at all, as the Pourcuttle or Pourcontrell.

CHAP. XIII.

¶ Of the Sea-calfe, or Seale.

THe great Whales, called *Pristis* and *Balæna*, bring forth their young aliue, and perfect liuing creatures: likewise all those that are couered with haire, as the Sea-calfe or Seale. She calueth on the drie land as other cattell, and whensoever she calues, she gleans afterwards as kine do. The female is tied and lined to the male, like as bitches to dogges: she neuer bringeth more than two at once, and she giueth milke at her dugs and paps, to her young. Shee bringeth them to the sea not before they be twelue daies old, and then she traines and acquainteth them to swim and keepe the water ordinarily. These Seales be hardly killed, vnlesse a man dash out their braines. In their sleepe, they seeme to low or blea, and thereupon they be called Sea-calues. Docible they be & apt to learn whatsoever is taught them. They will salute folke with a kind of countenance and regard: also with a voice such as it is, resembling a certain rude and rumbling noise. If a man cal them by their name, they wil turn again, and in their language answere. There is no liuing creature sleepeth more soundly than they. The fins which they vse to swim withall in the sea, serue their turnes instead of feet to go vpon, when they be on land. Their skins, after they be slaied from their bodies, retaine still a proprietie and nature of the Seas: for euer as the water doth ebbe, they are more rugged, and the haire or bristles stand vp. Moreouer, their right finnes or legs are thought to haue a power and vertue to prouoke sleep, if they be laid vnder ones beds head.

CHAP. XIII.

¶ Of fishes that be without haire, how they breed, and how many, sorts there be of them.

OF such creatures as want haire, two only there be that bring forth their young with life: and namely, the Dolphin and the Viper. Of fishes, properly so called, there be 74 kinds: besides those that haue rough crustie skins, which I count not, whereof there be 30 sorts. Of euery one of them in particular, we will speake else-where, and at another time: for now we are to treat of the natures of the chiefe and principall.

CHAP. XV.

¶ Of the names and natures of many fishes.

THe Tunies are exceeding great fishes: we haue seene some of them to weigh 15 talents. and the taile to be 2 cubits broad and a span. In some fresh riuers also, there be fish found full

A full as bigge: and namely, the riuer-Whale called *Silurus*, in *Nilus*; the *Lax*, in the *Rhene*; the *Attilus*, in the *Po*. This fish growes so fat with ease & lying still, that otherwhiles it weigheth 1000 pounds, and being taken with a great hooke fastened and linked to a chaine, cannot be drawne forth of the riuer but with certaine yokes of oxen. And yet as big as he is, there is one little fish in comparison of him called *Clupea*, that killeth him: for vpon a maruellous desire that he hath to a certain vein that he hath within his iawes, he bites it in sunder with his teeth, and so dispatcheth the forenamed great fish *Attilus*.

As for the *Silurus*, a cut-throat he is wheresoever he goeth, a great deuourer, and maketh foule worke: for no liuing creatures come amisse vnto him; he fettereth vp all indifferently. The very horses oftentimes as they swim, he deuoures, and specially in *Moenus*, a riuer of Germany neere to *Lisboa* or *Erlisbornis*.

B Moreouer, in the riuer *Donow*, there is taken the *Mario*, a fish much like to a russe or *Porpuis*. Also in the riuer *Borysthenes*, there is found a fish by report, exceeding great, with no chine nor bone at all betwene; and yet the meat thereof is passing sweet and pleasant.

Within *Ganges* a riuer of *India*, there be fishes snouted and tailed as Dolphins, 15 cubits long, which they call *Platanistæ*. And *Statius Sebosus* reports as strange a thing besides, namely, that in the said riuer there be certain wormes or serpents with two finnes of a side, sixtie cubits long, of color blew, and of that hew take their name [and be called *Cyonoeides*]. He saith moreover, that they be so strong, that when the Elephants come into the riuer for drinke, they catch fast hold with their teeth by their trunks or muzzles, and mauger their hearts force them downe vnder the water, of such power and force they are.

The male Tunies haue no finnes vnder their bellies. In the spring time they goe out of the great [Mediterranean] sea, and by whole flotes and troupes enter into *Pontus*; for in no other sea doe they bring forth their young. Their young frie, which accompanie their dams (when they are lightened of their burden) into the sea againe in the autumn, are called *Cordylæ*. Afterwards, they begin to call them *Pelamides*, and in Latine *Limose*, of the mud wherein they are kept: and when they be about one yere old, then they be Tunies indeed, & so called. These Tunies are cut into pieces, whereof the nape of the necke, the belly, and the flesh about the canell bone of the throat, are most commendable for meat, but these parcels only when they be fresh and new killed, and yet then will they rise in a mans stomacke, and make him belch sower. The other parts being full of good meat and oleous withall, are laid in salt, and so put vp in barrells and kept. And these pieces of the Tunie thus conduit and powdred, are called *Melandrya*, cut in slices like to oke shingles for all the world. The worst pieces of all others, be those that are next the taile, because they are not fat: but the best is that which is toward the throat: howsoever in other fishes the taile-peece is in greatest request, as being most stirred & exercised. As for the young Tunies called *Pelamides*, they are diuided & cut into parcels, that be named *Apolecti*: but when they be cut peece-meale into certain squares, those pieces are named *Cybia*.

All kind of fishes grow exceeding soon to their bignesse, and especially in the sea *Pontus*: the reason is, because a number of riuers bring fresh water into it, & in some sort make it sweet: and namely in it, there is one called *Amia*, which grows so fast & so evidently, that a man may perceiue how it waxeth from day to day. These fishes, together with the old Tunies and the young, called *Pelamides*, enter into great flotes & skuls into the sea *Pontus*, for the sweet food that they there find: and euery companie of them hath their seuerall leaders and captains: and before them al, the *Maquerels* lead the way, which, while they be in the water, haue a colour of brimstone, but without, like they be to the rest. The *Maquerels* serue the market well in *Spaine*, and furnish the fish shambles: namely, when as the Tunies repaire not into their seas. As for the sea *Pontus*, there enter into it few or no rauencours that haunt and deuoure fishes, vnlesse it be the Seales & little Dolphins. The old Tunies, when they come into it, chuse the right side (vpon the coast of *Asia*) but go forth at the left. And this is the reason thereof, as it is thought. For that they see better with their right eie; & yet the sight of either of them is very good. Within the channell of the *Thracian Bosphorus*, by which *Propontis* ioyneth to the sea *Euxinus*, in the very streight of the *Firth* that diuides *Asia* from *Europe*, neere to *Chalcedon* vpon the coast of *Asia*, there standeth a rocke, exceeding white and bright withall, which is so transparent and shining from the verie bottome of the sea to the top of the water, that the Tunies (affrighted at the sodaine sight thereof) to auoid it, goe alwaies amaine in whole flotes, toward the cape

ouer against Bizantium, which cape therupon beareth the name of Auricorum. And therefore it is, that the Bizantines make great gaine by fishing for them: whereas the Chalcedonians haue a great misse of that commoditie, and yet the arme of the sea or frith betweene them, is not past halfe a mile, or a mile at the most, ouer. Nott they euer wait for the North wind, that (together with the tide) they might with more ease passe cut of Pontus. Howbeit, the onely taking of them at Bizantium, is when they return again into Pontus. In Winter the Tunnies stirre not nor raunge abroad: but looke, wherefoeuer they are then found to be, there they take vp their Winter herbours, and make their abode vntill the spring Equinoctiall about mid-March. Many times they will accompanie the ships that saile thereby with full winde, and it is a wonderfull pleasant sight for the sailers to see them from the sterne, how for certaine houres together, and for the space of some miles, they will follow and attend vpon the poupe, be the wind neuer so good, nay, although they strike at them with the trout-spear sundry times, or lance at them some three-tined instrument, yet will they not be chased away, nor skared. These Tunnies that thus wait vpon the ships vnder saile, some call Pompili. Many of them passe the Summer-time in Propontis, and neuer enter into Pontus. Soles likewise vse the same manner, and yet yee shall haue many Turbots there. Neither shall a man finde the Cuttil there, although there be good store of Sea-cuts or Calamaries. Moreouer, of stone fishes, such as liue among rocks, the sea Thrush, the sea Merle, and the purple shell-fishes are not to be found, where Oysters notwithstanding are in great abundance. For all such Winter in the Ægean sea, called now Archipelago. Of them that enter into the sea Pontus, there is none staies there, but goes forth again, saue only the shell fish called the Saredane, or Trichia: for I thinke it good, in such diuersitie of fishes names, seeing that one and the selfe same fish is in many countries called diuersly, to vse the Greeke name for the most of them. These fish, I say, alone go vp the riuer Ister, and out of it they passe againe by certain issues and conduits vnder the ground, and so descend into the Adriatick sea: and euermore a man shall see this kind of fish comming down thither, but neuer mounting vp againe out of that sea. The right fishing for the Tunnies, & the only taking of them is from the rising of the star* Vergilia, to the setting of Arcturus. All the winter time besides they lie hidden in the deep, at the bottom of pits and gulfs within the sea, vntill they come forth to take their pleasure in some warme season, or otherwhiles when the Moon is at the full. They grow sometime so fat, that their skins will not hold, but they are ready to cleaue and burst withall. The longest time that they liue is 2 yeres and not aboue. Moreouer, there is a little creature or vermine, made somewhat like a Scorpion, & as big as a spider, which vsually will set her sharpe sting vnder the finne, both of the Tunnies and also of the sword-fish (which many times is bigger than the Dolphin) and put them to such pain, that to auoid them they oftentimes are driuen to lance themselves, and skip into the very ships. Which propertie they haue also at other times, for feare of the violence of other fishes: & most of all, the Mullers haue this cast with them; and this they doe with such exceeding swiftnesse and agilitie, that they will sling themselves otherwhiles crosse ouer the ships.

CHAP. XVI.

¶ Of presages and foretokenings by fishes, and of their diuersitie.

Nature willing to endue this Element also of the water with some Auguries, hath giuen to fishes likewise a kind of prescience and foreknowledge of things to come. And verily during the Sicilian war, as Augustus Caesar walked along the shore vpon the sands, there was a certain fish leapt forth of the sea, and light at his very feet. The Soothsaiers and wisards vpon this occurrent, being sought vnto, gaue this construction thereof, and presaged thereby, That they who at that time were lords of the sea, and held it in subiection, should be ranged vnder the obedience of Caesar, and at his deuotion. And yet at that present it is thought and said, That god Neptune had adopted Sex. Pompeius for his son, so fortunate he was, and such exploits had he atchieued vpon the sea.

The female kind of fishes are commonly bigger than the males. And there are some sorts of them, whereof there be no males at all, but all females, as the Erythini and the Chani. For they be taken alwaies spawners, and full of eggs.

Fishes that be skaled, for the most part swim in troups, and sort together. The best fishing is before the sun be vp: for then fishes see least or not at all. For if the nights be cleere and Moon-

shine

A shine, they see as well by night as day. Moreouer, they say that it is good fishing twise in one and the same hole: for commonly vpon the second cast, the draught is better than the first. Fishes loue passing well to tast oile; they ioy also and like well in soft & gentle showers, & therewith they will feed and grow fat. And good reason there is of it: for why? we see by experience that canes & reeds, although they breed in meers and standing waters, yet they grow not to the purpose without rain. Moreouer, it is obserued, that fish keeping euermore in one dead poole and neuer remoued, will die wherefoeuer it be, vnlesse there fall rain water to refresh them. All fishes feeble the cold of a sharpe and hard winter, but those especially, who are thought to haue a stone in their head, as the Pikes, the Chromes, Sciæna, & Pagri. If it be a bitter season in winter, many of them are taken vp blind. And therefore during those cold moneths, they lurk hidden in holes, and within rocks, like as we haue said, certain land creatures doe. But aboue all others the Lobsters called Hippuri, and the Coracini, cannot abide extremity of cold, & therefore be neuer caught in winter, vnles it be at certain times when they come forth of their holes; which they keep duly, and neuer stir but then. In like sort, the Lamproie, the Orphe, the Conger, Perches, and all Stone-fishes that loue rocks and grauell. Men say verily, that the cramp-fish, the Plaice, and the Sole lie hidden all winter in the ground, that is to say, in certain crevices and chinks which they make in the bottome of the sea. Contrariwise, some are impatient of heat, and can as ill away with hot weather, and therefore about Mid-summer for so daies they lie hidden and are not to be seen: as the fish Glaucus, the Cod, and the Gilt-head. Of riuer fishes, the Silurus or Sturgeon in the beginning of the dog-daies is blasted and stricken with a planet: at other times also in a thunder & lightening he is smitten, so as therewith he is astonied and lieth for dead. And some thinke that the like accident befallerh to the sea Bream Cyprinus. And verily, all quarters of the sea throughout, feeble the rising of the dog-starre: but most of all the influence and power thereof is to be seen in the streight of Bosphorus: for then may a man perceiue ordinarily the reits of the sea, and the fishes flete aloft, and the sea so troubled, that euery thing is cast vp from the bottome to the vpper part of the water.

CHAP. XVII.

¶ Of the Mullet and other fishes: and that the same in all places are not of like request.

D The Mullers haue a naturall ridiculous qualitie by themselves, to be laughed at: for when they be afraid to be caught, they will hide their head, and then they think they be sure enough, weening that all their body is likewise hidden. These Mullers neuertheless are so lecherous, that in the season when they vse to ingender, in the coasts of Phœnice & Languedock, if they take a multer out of their stews or pooles where they vse to keep them, and draw a long string or line through the mouth and gills, and so tie it fast, and then put him into the sea, holding the other end of the line still in their hands, if they pul him againe vnto them, they shall haue a number of spawners or femals follow him hard at taile to the bank side. Semblably, if a man do the same with a female in spawning time, hee shall haue as many multers follow after her. And in this manner they take an infinit number of Mullers.

In old time our ancestors set more store by the Sturgeon, & it carried the name aboue all other fishes. He is the only fish that hath the scales growing ouer the head: hee swims against the streame. But now adaies there is no such reckoning & account made of him: wherat I maruell much, considering he is so hard and seldome to be found. Some call him Elops: afterwards Cornelius Nepes, and Laberius the Poet and maker of mery rimes haue written, that the sea Pikes and the cods gor away all the credit from the Sturgeon, & were of greatest request. As for the Pikes aforesaid, the best and most commendable of all others be they which are called Lanati, as a man would say cotton Pikes, for the whitenesse & tendernesse of their flesh. Of cods there be two sorts, Callariæ, or Haddockes, which be the lesse: and Bacchi, which are neuer taken but in the deep, and therefore they are preferred before the former. But the Pikes that are caught in the riuer be better than all others. The fish called Scarus now carrieth the price & praise of all others, & this fish alone is said to chew cud, to liue of grasse and weeds, and not to prey vpon other fishes. In the Carpathian sea great store of them is found: & by their good will they neuer passe the cape or promontorie Lesbos in Troas. In the daies of Tiberius Claudius the Emperor,

* i. In the beginning of May.

Optatus his freed man (who sometime had bin a slaue of his) and then Admiral and Lieutenant G
 generall of a fleet vnder him, brought them first out of that sea, and with them stored the whole
 coast of our seas betweene Ostia and Campania. Order was taken by straight inhibitions for
 the first fūe yeares, to kill none that were put into those seas, but if any were taken, that they
 should be cast in againe. In proceſſe of time many of them came to be found and taken vp all a-
 long the coast of Italy, whereas before, they were not to be had in those parts. See how glutton-
 nie, and the desire to please a dainty tooth, hath deuised means forsooth to fow fish, & to trans-
 plant them as it were, so to store the sea with strange breed: so that now we need no more mar-
 uell, that forraine birds and fowles, set out of far countries, haue their airies at Rome, and breed
 there. Next to those fishes about named, the table is serued with a kinde of Lamprels or Ele-
 pouts like to sea Lampreis, which are bred in certain lakes about the Alps, and namely, in that H
 of Rhœtia called Brigantinus: & a strange thing it is, that they should be so like in proportion
 to those of the sea. Of all other fishes of any good account, the Barbell is next, both in request,
 and also in plenty. Great in quantity they are not: for hardly shall you find any of them weigh
 about two pound, neither wil they feed & grow in stews and ponds. They are bred only in the
 Northern sea: and neuer shall you see them in the coast of the West Ocean. Moreouer, of this
 Fish there be sundry sorts. And they liue all of Reits and Seawds, of Oysters, of the fat mud, &
 of the flesh of other Fishes. They haue all of them 2 beards, as it were, hanging down euident-
 ly from their nether jaw. The worst of all this kind, is that which is called Lutarius: & this fish I
 hath another named Sargus, that willingly cuermore beareth him company: for whiles hee is
 rooting into the mud (whereof he taketh his name) then commeth the Sargus, and deuoures the
 food that is raised therewith. Neither are the Barbels much accepted that keep neere the shore
 and in the river within land. But the best simply are those that tast like vnto the shel-fish Con-
 chylum. *Fenestella* gaue them the name Mulli, of certaine moyles or fine shooes, which in co-
 lour they do resemble. They cast spawn thrice in one yere at the least: for so often their young
 Fry is seen. Our great belligods say, that a Barbell when he is dying, changeth his hue, and tur-
 neth into an hundred colours: the prooffe and experience whereof may be seen if he be put into
 a glasse: for through it, it is a pretty sport to see how he altereth and changeth his skales beeing
 ready to die, one way into a pale and wan colour, otherwhiles into a reddish hue, one after ano-
 ther for many times together. *Al. Apicius* (who was a man of all others most inuentiue and won-
 derful for his witty deuises to maintain riot and excess) thought it was a singular way to stifle
 and kill these Barbels in a certain pickle, called the Roman Allies sauce (see how euen such a
 thing as that, hath found a tyname forsooth & a proper addition.) And he also went about to
 prouoke men to deuise a certain manger or broth made of their liuers, like to that dripping or
 graue called Alec. that commeth of Fishes when they pine and corrupt. For surely it is more
 easie for me to say who set men a work that way first, than set down who won the best game in
 the end, and was the greatest glutton. *Aflurius Celer*, a man of great calling and high place, who
 sometime had bin Consul, shewed his prodigalitie in this Fish, & it was when *C. Caligula* was L
 Emperour: for he gaue for one Barbell eight thousand Sesterces. Certes, the consideration here-
 of rauisheth my mind, and carrieth it away to behold & wonder at those, who in their reproofs
 of gluttonie and gourmandise, complained that a cooke carried a greater price in the market
 of a good horse of seruice. For now adates a cookewill cost as much as the charge of a tri-
 umph: and one Fish as deare as a cook. And to conclude, no man is better esteemed and regar-
 ded more, than he that hath the most cunning cast to wast the goods, & consume the substance
 of his lord and master.

CHAP. XVIII.

¶ Of the Barbell, the fish Coracinus, Stock-fish, and Salmon.

Licinius Mutianus reporteth, That in the red sea there was taken a Barbell that weighed 80 M
 pounds. Oh, what a price would he haue borne among our gluttons here with vs! What
 would he haue cost our prodigall spendthrifts, if hee had bin taken vpon our coasts neere
 Rome? Moreouer, this is the nature of fish, that some are chiefe in one place, and some in ano-
 ther. As for example, the Coracinus in Egypt carieth the name for the best fish. At Gades in
 Spain, the Doree or Goldfish, called Zeus and Faber. About the Isle Ebusus, the Stock-fish is
 much

A much called for; whereas in other places it is counted but a base muddy and filthy fish; and
 which no where else they know how to seeth perfectly, vnlesse it be first well beaten with cud-
 gels. In the country of Aquitaine or Guienne in France, the riuer Salmon passeth all other sea
 Salmons whatsoeuer.

Of fish, some haue many folds of gills, some single, others double. At these gills they deli-
 uer again and put forth the water that they take in at the mouth. You may know when fish be
 old by their hard scales: and yet all fishes are not scaled alike. There be two lakes in Italy at
 the foot of the Alps, named Larius and Verbanus, wherein fishes are to be seen euery yeare at
 the rising of the star Vergiliæ, thicke of scales, and the same sharp pointed like to the tongues
 of buckles, wherewith horsemen or men at arms do fasten their greiues: and neuer els but about
 that moneth do they appeare.

CHAP. XIX.

¶ Of the fish Exocætus.

The Arcadians make wonderous great account of their Exocætus; so called, for that hee
 goeth abroad and taketh vp his lodging on the dry land to sleep. This fish (by report) a-
 bout the coast Clitorius hath a kind of voice, and yet is without gills. And of some he
 is named Adonis. But besides him, the sea Tortoises also, (called Mures Marini) the Polypes
 & Lampreies vse to go forth to land. Moreouer, in the riuers of India there is one certaine fish
 doth so, but it leaps back again into the water: for whereas many other fishes passe out of the
 sea into riuers and lakes, there is great and euident reason thereof, namely, for that they are in
 more safetie there, both to cast their spawn vnder the wind where the water is not so rough, and
 full of waues: and also to bring forth their little ones, because there be no great fishes to deu-
 our them. That these dumb creatures should haue the fence herof, thus to know these causes,
 and obserue duly their times, is very strange and wonderfull, if a man would sound the depth
 thereof: but more he would maruell to consider, how few men there be that know which is the
 best season for fishing, while the Sun passeth through the signe Pisces.

CHAP. XX.

¶ A diuision of fishes according to the forme and shape of their bodies.

Of sea fishes some be plain and flat, as Byrts or Turbots, Solds, Plaice, & Flounders. And
 these differ from the Turbots only in the making of their body: for in a Turbot the
 right side turns vpward, and in a Plaice the left. Others again be long and round, as the
 Lamprey and Congre. And hereupon it is that they haue a difference in their fins, which Na-
 ture hath giuen to fish in stead of feet. None haue about foure, some two, some three, others
 none at all. Only in the lake Fucinus there is a fish which in swimming vseth 8 fins. All that
 be long and slipperie, as Eeles and Congres, haue ordinarily two in all, and no more. Lampreies
 haue none to swim with, ne yet perfect gills: all of this kind winde and wriggle with their bo-
 dies within the water, and so erche forward like as serpents doe vpon the earth. They creepe
 also when they are vpon dry land, and therefore such liue longer than the rest out of the water.
 Also of the foresaid flat fishes some haue no finnes, as the puffin or fork-fish: for their bredth
 serueth them sufficiently to beare them vp, and to swim. And amongst those that are counted
 soft, the Pourcuttall hath no fins, for his feet standeth him in stead of fins to swim with.

CHAP. XXI.

¶ Of Yeles.

Yeles liue 8 yeares. And if the North wind blow, they abide aliue without water 6 daies,
 but not so long in a Southern wind. But yet in Winter time they may not endure to be
 in a little water, nor if it be thicke and muddy: wherupon, about the rising of the star Vir-
 gilæ they be commonly taken, for that the riuers about that time vse to be troubled. Their
 feeding most commonly is in the night. Of all fish, they alone, if they be dead, stote not about
 the water.

¶ *The manner of taking them in the lake Benacus.*

THere is a lake in Italy called Benacus, within the territorie of Verona, through which the riuer Mincius runs: at the issue whereof euerie yere about the moneth of October, when the Autumne star Arcturus ariseth, whereby (as it evidently appeareth) the lake is troubled as it were with a winter storme and tempest, a man shall see rolling amongst the waues a wonderfull number of these Yeels wound & tangled one within another: insomuch as in the leapweeles and weerners deuised for the nonce to catch them in this riuer, there be found sometime a thousand of them wrapped together in one ball.

CHAP. XXIII.

¶ *Of the Lamprey.*

THe Lamprey spawneth at all times of the yere, whereas all other fishes are deliuered of their yong at one certain season or other. The eggs or spawne grow to a great passe exceeding soon. If they chance to slip out of the water to dry land, the common sort is of opinion that they ingender with serpents. The male or miltre of this kinde Aristotle calls Myrus. And herein is the difference, that the spawner, properly called Muræna, is of sundry colors, and withall but weake: but the Mylter or Myrus is of one hue, & withall very strong, hauing teeth standing without his mouth. In the North parts of France all the Lampreies haue in their right jaw seuen spots, resembling the seuen stars about the North pole, called Charlemaines Waine. They be of a yellow colour, and glitter like gold so long as the Lampreies be aliue; but with their life they vanish away, and be no more seene after they be dead. Vedius Pollio, a gentleman of Rome by calling, and one of the great fauorits and followers of Augustus Caesar, deuised experiments of cruelty by means of this creature: for hee caused certain slaues condemned to die, to be put into the stewes where these Lampreies or Murænes were kept, to be eaten and deuoured by them: not for that there were not wilde beasts ynow vpon the land for this feat, but because he tooke pleasure to behold a man torne and pluckt in pieces all at once: which pleasant sight he could not see by any other beast vpon the land. It is said, if they taste vineger, of all things, they become enraged and mad. They haue a very thin and tender skinne: contrariwise, Yeels haue as thick & tough. And Perrius writeth, that boyes vnder 17 yeres of age were wont to be singed and whipped with Yeels skinnes, and therefore they were freed from all other mulct and punishment.

CHAP. XXIV.

¶ *Of flat and broad Fishes.*

OF flat and broad fishes there is another sort, which in lieu of a chine or backe bone haue a gristle. As the Ray or Skait, the Puffin like vnto it, the Maids or Thornbacke, and the Crampfish: moreover, those which the Greekes haue termed by the names of their sea Cow, their Dog-fish, their Eagle and Frog of the sea. In this rank are to be ranged the Squall also, albeit they are not so flat and broad. All this kind in general Aristotle hath called in Greek Selache, and he was the first that gaue them that name: we in Latine cannot distinguish them, vnlesse we call them all Cartilaginea, that is to say, Cristly fish. But all the sort of them that deuoure flesh are such: and their manner is to feed lying backward, like as we obserued in the dolphins. And whereas other fishes cast spawn which resemble knots of eggs; these gristly fishes only, as also those great ones which we call Cete, or Whales, bring forth their yong aliue. And yet I must except one kind of them which they call Rana, or sea Frogs.

CHAP. XXV.

¶ *Of Echeneis [i. the Stay-ship.]*

THere is a very little fish keeping vsually about rocks, named Echeneis: it is thought, that if it fertle and stick to the keele of a ship vnder water, it goeth the slower by that means: whereupon

A whereupon it was so called: and for that cause also it hath but a bad name in matters of loue, for enchanting as it were both men and women, and bereauing them of their heat and affection that way: as also in law cases, for delay of issues and iudicial trials. But both these imputations and slanders it recompenseth again with one good vertue and commendable quality that it hath: for in great bellied women if it be applied outwardly it stayeth the dangerous flux of the womb, and holds the child vnto the full time of birth: howbeit it is not allowed for meat to be eaten. Aristotle thinketh, that it hath a number of feet, the fins stand so thick one by another.

B As for the shell fish Murex, Mutianus saith it is broader than the Purple, hauing a mouth neither rough nor round, ne yet with a becke pointed cornered-wise, but plain and euen, hauing a shell on both sides winding and turning inward. These fishes chanced vpon a time to cleaue fast vnto a ship, bringing messengers from Periander, with commission to gueld all the Noblemens sonnes in Gnidos, and stayed it a long time, notwithstanding it was vnder saile, and had a strong gale of a fore-winde at the poupe. And hereupon it is, that these Shell fishes for that good seruice are honoured with great reuerence in the Temple of Venus among the Gnidians.

But to returne again vnto our Stay-Ship Echeneis, Trebius Niger saith it is a foot long, and five fingers thicke, and that oftentimes it stayeth a ship. And moreover, as he saith, it hath this vertue being kept in salt, to draw vp gold that is fallen into a pit or well being neuer so deep, if it be let downe and come to touch it.

CHAP. XXVI.

¶ *The changeable nature of Fishes.*

THe Cackarels change their colour: for these fishes being white all Winter, wax blacke when Summer comes. Likewise the Mole or Lepo called Phycis, doth alter her hue: for howsoeuer all the yere besides it be white, in the Spring it is speckled. This is the only fish that builds vpon the reites and mosse of the sea, and layes her eggs or spawneth in her nest. The sea Swallow flieth, and it resembleth in all points the bird so called. The sea Kite doth the same.

CHAP. XXVII.

¶ *Of the fish called the Lanterne, and the sea Dragon.*

THere is a fish comes ordinarily about the water, called Lucerna, for the resemblance that it hath of a light or lantern: for it litleth forth the tongue out of the mouth, which seemeth to flame and burne like fire, and in calme and still nights giues light and shineth. There is another fish that puts forth hornes about the water in the sea, almost a foot and halfe long, which thereupon tooke the name Cornuta. Againe, the sea Dragon if he be caught and let go vpon the sand, worketh himselfe an hollow trough with his snout incontinently, with wonderfull celeritie.

CHAP. XXVIII.

¶ *Of bloudlesse fishes.*

Some fishes there be which want bloud, whereof wee now will speake. Of them are three sorts: first, those which be called Soft: secondly, such as be covered within crusts: & in the last place, they that are inclosed within hard shels. Of the first sort, counted soft, be reckoned the sea Cut or Calamarie, the Cuttle, the Polype, and the rest of that sort. These haue their head betwene their feet and the belly, and euery one of them haue 8 feet. As for the Cuttil and Calamarie, they haue two feet apiece longer than the rest, and the same rough, wherewith they conuey and reach meat to their mouths: and with those they stay themselves as it were with anchor hold against the surging waues: the rest of their feet be smal like hairs, and with them they hunt and catch their prey.

Also the Calamarie lanceth himselfe out of the water, as if he were an arrow; and euen so doth little Scalops. The male of the Cuttles kind are spotted with sundry colors more dark and blackish, yea and more firme and steady than the female. If the female be smitten with a Trout-speare, or such like three-forked weapon, they will come to aid & succor her: but she again is not so kind to them, for if the male be stricken she will not stand to it, but runs away. But both of them, the one as well as the other, if they perceiue that they be taken in such fireights that they cannot escape, shed from them a certain black humor like to ink, and when the water therewith is troubled and made dusky, therein they hide themselves and are no more seen.

Of Polypes or Pourcontrels there be sundry kinds. They that keep neere the shore are bigger than those that haunt the deep. All of them help themselves with their fins and armes, like as we do with feet and hands: as for their taile, which is sharp and two forked, it serueth them in the act of generation. These Pourcontrels haue a pipe in their back, by the help whereof they swim all ouer the seas; and it they can shift one while to the right side, & another while to the left. They swim awry or sidelong with their head aboue, which is very hard and as it were puffed vp so long as they be aliue. Moreover, they haue certain hollow concavities dispersed within their claws or armes like to ventoses or cupping glasses, whereby they will stick to, and cleaue fast as it were by sucking, to any thing, which they clasp & hold so fast, lying vpward with their bellies, that it cannot be plucked from them. They neuer settle so low as the bottom of the water, and the greater that they be, the lesse strong they are to clasp or hold any thing. Of all soft fishes they only go out of the water to dry land, especially into some rough place, for they cannot abide those that are plaine and euen. They liue vpon Shell-fishes, and with their haire or strings that they haue they will twine about their shels and crack them in pieces: wherefore a man may know where they lie and make their abode by a number of shels that lie before their nest. And albeit otherwise it be a very brutish and senselesse creature, so foolish withall, that it will swim and come to a mans hand; yet it seems after a sort to be witty and wise, keeping of house and maintaining a familie: for all that they can take they carry home to their nest. When they haue eaten the meat of the fishes, they throw the empty shels out of dores, and lie as it were in ambuscado behind, to watch and catch fishes that swimme thither. They change their colour oftsoons, and resemble the place where they be, & especially when they be afraid. That they gnaw and eat their own clees and arms, is a meere tale; for they be the congreg that do them that shrewd turn: but true it is that they will grow againe, like as the taile of snakes, adders, & lizards. But among the greatest wonders of nature, is that fish which of some is called Nautilus, of others Pompilos. This fish, for to come aloft aboue the water turnes vpon his back, and raiseth or heaueth himself vp by little and little: and to the end he might swim with more ease, as disburdened of a sinke, hee dischargeth all the water within him at a pipe. After this, turning vp his two foremost claws or armes, he displaith and stretcheth out betwene them a membrane or skin of a wonderfull thinnesse: this serueth him in stead of a saile in the aire aboue water: with the rest of his arms or claws he roweth and laboreth vnder water, & with his taile in the mids he directeth his course, and steereth as it were with an helme. Thus holds he on and maketh way in the sea, with a faire shew of a foist or gally vnder saile. Now if he be afraid of any thing in the way, he makes no more ado but drawes in water to ballace his body, and so plungeth himselfe down, and sinketh to the bottom.

Of the Polypus or Pourcontrell kind with many feet, is the Ozæna, so called of the strong fauor of their heads, for which cause especially, the Lampreys follow in chase after him.

As for the Many-feet or Pourcuttels, they lie hidden for two months together: and aboue two yeares they liue not. They die alwaies of a consumption or Phthisicke: the female sooner than the males, and ordinarily after that they haue brought forth their yong frie. I cannot ouerpasse but record the reports of *Trebius Niger*, one of the traine and retinue of *L. Lucullus* Proconsull in Boetia, which he vpon his knowledge deliuered as touching these Many-feet fishes called Polypi, namely, That they are most desirous and greedie of cockles, muscles, and such like shell-fishes: and they againe on the contrarie side, so soone as they feele themselves touched of the Polypes, shut their shels hard, and therewith cut asunder their claws or armes, that were gotten within: and thus fall they to feed vpon those, who sought to make a prey of them. [Now in very truth these shell-fishes, all of them see not at all, neither haue they any other sense, but tasting of their meat, & feeling of their drinke.] These Polypi foreseeing all this, lie in wait to spie when the said cockles, &c. gape wide open, and put in a little stone between the shels, but yet beside the flesh & bodie of the fish, for feare lest if it touched and felt it, the would cast it forth againe: thus they theewe, and without all daunger and in securitie get out the fleshy substance of the meat to deuoure it: the poore cockles draw their shels together for to clasp them between (as is aboue-said) but all in vaine, for by reason of a wedg between, they will not meet close nor come neere together. See how subtle and craftie in this point these creatures be, which otherwise are most foolish and senselesse. Moreover, the said *Trebius Niger* affirmeth, that there is not any other beast nor fish in the sea more dangerous to doe a man a mischief within the water, than is this Pourcuttle or Many-feet Polypus: for if he chance to light on any of these diuers vnder the water, or any that haue suffered shipwracke and are cast away, he assailes them in this manner: He catcheth fast hold of them with his claws or armes, as if he would wrestle with them, and with the hollow concavities and noukes between, keepeth a sucking of them; and so long he suckes and sokes their blood (as it were cupping-glasses set to their bodies in diuers places) that in the end he draweth them drie. But the only remedie is this, to turne them vpon their backe, and then they are soone done and their strength gone: for let them lie so, they stretch out themselves abroad, and haue not the power to clasp or comprehend any thing. And verily all liuing creatures in the sea loue the smell of them exceeding well, which is the cause that fishers besmare and anoint their nets with them, to draw and allure fishes thither.

The rest which mine author hath related as touching this fish, may seem rather monstrous lies and incredible, than otherwise: for he affirmed, that at Carteia there was one of these Polypi, which vsed commonly to go forth of the sea, and enter into some of their open cisterns and vaults among their ponds and stewes, wherein they keepe great sea-fishes, and otherwhiles would rob them of their salt-fish, and so go his waies againe: which he practised so long, that in the end he gat himselfe the anger and displeasure of the maisters and keepers of the said ponds and cisterns, with his continuall & immeasurable filching: whereupon they staked vp the place and empalled it round about, to stop all passage thither. But this thief gaue not ouer his accustomed haunt for all that, but made meanes by a certaine tree to clamber ouer and get to the fore-said salt fish; and neuer could he be taken in the manner, nor discovered, but that the dogges by their quick sent found him out and baied at him: for as he returned one night toward the sea, they assailed and set vpon him on all sides, and therewith raised the fore-said keepers, who were affrighted at this so sudden an alarm, but more at the strange sight which they saw. For first and foremost this Polype fish was of an vnmeasurable and incredible bignesse: and besides, he was besmeared & beraied all ouer with the brine and pickle of the fore-said salt-fish, which made him both hideous to see to, and to sinke withall most strongly. Who would euer haue looked for a Polipe there, or taken knowledge of him by such marks as these? Surely they thought no other, but that they had to deale and encounter with some monster: for with his terrible blowing and breathing that he kept, he draue away the dogs, and otherwhiles with the end of his long stringed winding feet, he would lash and whip them; sometimes with his stronger claws like arms he rapped and knocked them well and surely, as it were with clubs. In summe, he made such good shift for himselfe, that hardly and with much adoe they could kill him, albeit he receiued many a wound by trout-spears which they launced at him. Wel, in the end his head was brought and shewed to *Lucullus* for a wonder, & as big it was as a good round long head or barrel that would take and containe 15 Amphores: and his beards (for so *Trebius* termed his claws and long-stringed feet) carried such a thicknesse and bulke with them, that hardly a man could fathome

one of them about with both his armes, such knockers they were knobbed and knotted like clubs, and withall 30 foot long. The concavities within them, and hollow vessels like great bassons, would hold 4 or 5 gallons apeece: and his teeth were answerable in proportion to the biggness of his bodie. The rest was saued for a wonder to be seene, and weighed 700 pound weight. This author of mine *Trebius* affirmeth, that Cuttels also and Calamaries haue been cast vpon that shore, full as big. Indeed in our sea there be Calamaries taken of 5 cubits long, and Cuttels of twaine, in length: and these liue not aboue two years.

Mutianus reporteth, that himselfe saw in Propontis another kind of fish carying as it were a ship of his owne, and making saile with it like to some galley: and a shel-fish it was fashioned with a keele like to a barge or barke, with a poupe embowed and turned vp: yea and armed as it were in the prow with a three-forked pike. Within which lay hidden (as he saith) another liuing creature called Nauplius, resembling a Cuttle fish; and for no other reason in the world, but to make sport and play with it for companie. Now the manner of this pastime and sailing was in two sorts: for if it were a calme sea and the winds downe, the Nauplius afore-said that went as a passenger in this shell, would put downe his feet into the water like ores, and row therewith; but if a gale of wind were aloft, he would stretch the same alength & make them serue in stead of an helme to steere withall; and then the Coquill or shel-fish would spread and display it selfe like sailes, to gather wind: so as the one of them tooke a pleasure to carrie, in manner of the vessell; the other had his delight to labour as a mariner, and to direct withall like a pilot. Thus these two fishes (otherwise senselesse & blockish) take their pleasure together, vnles peraduenture it fall out vnhappy (for certain it is that such a sight as this presages no good to sailers) that men marre their sport, and either part them asunder, or force them to sinke vnder water.

The Lobsters (beeing of that kind which wanteth blood) haue a tender and brittle crust to couer and defend them. For five months they lie hidden. The Crabs likewise, who at the same time keep close & secret: and both of them in the beginning of euery spring cast their old coats or shels as snakes do their skins, & take them that be new & fresh. All others of this kind swim within the water: but the Lobsters steele aloft, and creepe as it were vpon the water. So long as they are secure of any feare and danger, they go directly straight, letting downe their hornes at length along their sides, which naturally by themselves haue a round point or bob at the end: but if they be in any feare, govp those hornes straight, and then they creepe byas and goe side-long. With these hornes they oftentimes maintaine battaile one with another. Of all creatures, this only hath a tender and soft kind of flesh, which in the seething will not hang together, vnlesse it be sodden aliue in scalding water, and then it will be stiffe and callous as brawne.

CHAP. XXXI.

Of sea-crabs, Vrchins of the sea, and great Vrchins called Echinometra.

AS for the Lobsters, they loue rocks and stonie places: but Crabs delight in soft and delicate places. In winter, they seeke after the warme or sun-shine shore: but when summer is come, they retire into the coole and deepe holes in the shade. All the sort of them take harme and paire by winter: in autumn and spring, they battle and wax fat; and especially when the moon is at the full: because that planet is comfortable in the night time, & with her warme light mitigateth the cold of the night. Of these Crab-fishes, there be many kinds: to wit, Lobsters, Creyfishes of the sea, crabs of Barbarie called Maix, Grampels, Grits or Pungiers, Crabs of Heraclea, yellow riuier Creyfishes, and diuers others of more base account. As for the Lobsters, they differ from the rest in taile. In Phoenicia, there is a kind of Crabs called Hippes, or rather Hippes (that is to say, Horses or Horsmen) which are so swift, that it is impossible to ouertake them. Crabs liue long: eight clees or feet they haue apeece, all crooked and hooked: the female hath the fore-clee double, the male but single. Moreover, two of the legs or arms are forked and toothed like pincers. The vpper part of these foreclawes doth stir: the nether part moueth not. The right leg in them all is bigger than the left. When they come in skuls all together (as sometimes they doe) they are not able to passe one by another the streights of the sea Pontus about Constantinople, whereupon they are forced to returne back againe and fetch a compasse about, and the beaten way with their tracks may be seene. The least of all these kind of Crabs, is called

A called Pinnotheres [or Pinnoter] and for his smalnesse most subiect and exposed to iniurie. But as subtil and crafty he is as he is little; for his maner is to shroud and hide himself within the shels of empty oysters, and euer as he growes bigger and bigger, to go into those that be wider. Crabs when they be afraid will recule backward as fast as they went forward. They will fight one with another, and then ye shall see them iur and burt with their hornes like rams. Singular good they are against the bitings and stingings of serpents. It is reported, that while the Sun is in the signe Cancer, the bodies within of dead crabs that lie without the water vpon drie land, wil turne to be scorpions. Of the same sort that the crabs be are the vrchins of the sea called Echini; and these in stead of feet haue certain pointed prickles. Their maner of going is to roll themselves and tumble round; and therefore many times shall yee finde them with their prickles worne. And of this sort be they that are called Echinometra. The longest prickles they haue of all others, and the least shels or cases wherein they are. Neither are they all of the same colour of glasse; for about Torone they are found to be white, hauing small prickles. They haue all of them five eggs when they lay, but they are bitter. Their mouths stand in the mids of their bodies, bending down toward the earth. It is said they haue a fore-knowledge of a sea tempest: for by reason that they are so round, and therefore soone whirled and caried here and there, they fall then to labor and gather stones, wherewith they charge and peise their bodies as with ballast, that they may abide more stedfast, for that they are not willing to weare their prickles with rolling and turning ouer and ouer: which when the mariners and sailers perceiue once, they presently cast many anchors and stay their ships.

CHAP. XXXII.

Of Winkles and sea Snailles.

IN the fameranke are to be reckoned the Winkles as well of land as water. When they put themselves out of their shels they thrust out two hornes that they haue, and wil pluck them in again when they list. Eyes they haue none to see withall, and therefore these little hornes serue them in good stead to found, as it were, and try the way as they go.

CHAP. XXXIII.

Of Scallops: of the greatest Winkle called Murex, and other kinds of shell-fishes.

THe great Scallops in the sea are counted for the same race which lie hid also in the time as well of great heat as cold. They haue certaine nailes as it were shining like fire in the night season; yea in their very mouthes that eat them. As for the Pourcelanes or Muri-ces, they haue a stronger skaled shell; as also all the kind of Winkles great and small. Wherin a man may see the wonderfull varietie of Nature in this play and pastime of hers, giuing them so many and sundry colours, with such diuersitie of formes and figures; for of them yee shall haue flat and plain, hollow, long, horned like the moon croissant, full round, halfe round, & cut as it were iust through the mids, bow-back, and rising vp, smooth, rough, toothed and indented like a saw, ridged and chamfered between, wrinkling and winding vward to the top like Caltropes, bearing out sharpe points in the edges, without-forth broad and spread at large, within rolled in pleits. Moreover, there be other distinct shapies besides all these: some be striped and raied with long streaks, others crested and blasing with a bush of long haire: some againe crisped and curled, others made like an hollow gutter or pipe: some fashioned as it were a comb, others waving with plaits one aboue another tile-wise, others framed in the manner of a net or lattise: some are wrought crooked and byas, others spred out directly in length. A man shall see of them those that are made thick and mossie thrust together and compact, others stretch forth at large: ye shall haue of them wrapt and lapt one within another: and to conclude, yee shall find them run round into a short fast knot, and all their sides vnited together in one: some flat and plain good to giue a clap, others turning inward crooked like a corner, made as it were to found and wind withall. Of all these sorts, the Pourcelanes or Venus-Winkles swim aboue the water, and with their concauitie or hollow part which they set into the weather, help themselves in stead of sailes, and so gathering wind, saile as it were aloft vpon the sea. The manner

of the Scalops is to skip, and otherwhiles they will leap forth of the water. They also can find the means to make a boat of themselves, and so flote aboue and saile handfomly.

CHAP. XXXIV.

¶ *The riches of the sea.*

BUt what meane I all this while to stand vpon these small trifling matters, when as in very truth the ouerthrow of all honestie, the ruin of good maners, and in lieu thereof all riot and superfluity proceeds from these shel-fishes, and from nothing so much? for now the world is grown to this passe, that there is nothing in it whatsoeuer so chargeable to mankind, nothing so hurtfull and dangerous as is the very sea, and that so many waies; namely, in furnishing the table with such varietie of dishes, in pleasing and contenting the taste with so many dainty and delicate fishes; and those carry the highest price that be gotten with greatest hazard and danger of those that take them, otherwise they be of no regard and value to speake of.

CHAP. XXXV.

¶ *Of Pearles, how and where they be found.*

Howbeit al that before named is nothing in comparison of the Purples, pretious Coquils and Pearls that come from thence. It was not sufficient belike to bring the seas into the kitchen, to let them down the throat into the belly, vnlesse men and women both caried them about in their hands and eares, vpon their head, and all ouer their body. And yet what societie and affinitie is there betwixt the sea and apparell? what proportion betwixt the waues and surging billowes thereof, and wooll? for surely this element naturallie receiues vs not into her bosom vnlesse we be stark naked: and set the case there were so great good fellowship with it and our bellies, how comes our backe and sides to be acquainted with it? But wee were not contented to feed with the peril of so many men, vnlesse we be clad and araied also therewith. O, the folly of vs men! see how there is nothing that goeth to the pampering and trimming of this our carcassee, of so great price and account, that is not bought with the vtmost hazard, and costeth not the venture of a mans life! But now to the purpose. The richest merchandise of all, and the most soueraigne commoditie throughout the whole world are these Pearles. The Indian ocean is chief for sending them: and yet to come by them, we must go and searce among those huge & terrible monsters of the sea, which we haue spoken of before: we must passe ouer so many seas, and saile into far countries so remote, and come into those parts where the heate of the sun is so excessive and extreme; and when all is done we may perhaps misse of them: for euen the Indians themselves are glad to seeke among the Islands for them, & when they haue done all they can, meet with very few. The greatest plenty of them is to be found in the coast of Taprobane and Toidis, as hath bin said before in our Cosmographie and description of the world: and likewise about Perimula a promontorie and city of India. But the most perfect and exquisite of all others be they that are gotten about Arabia, within the Persian gulf. This shell-fish which is the mother of Pearle, differs not much in the maner of breeding and generation from the Oysters: for when the season of the yeare requireth that they should engender, they seeme to yawne and gape, and so do open wide; and then (by report) they conceiue a certaine moist dew as seed, wherewith they swell and grow big, and when time commeth labor to be deliuered hereof: and the fruit of these shell fishes are the Peares, better or worse, great or small, according to the qualitie and quantitie of the dew which they receiued. For if the dew were pure and cleare which went into them, then are the Pearles white, faire, and Orient: but if grosse and troubled, the Pearles likewise are dimme, foule, and duskyish; pale (I say) they are, if the weather were close, darke, and threatening raine in the time of their conception. Whereby (no doubt) it is apparant and plaine, that they participate more of the aire and sky, than of the water and the sea; for according as the morning is faire, so are they cleere: but otherwise, if it were misty and cloudy, they also will be thicke and muddy in colour. If they may haue their full time and season to feed, the Pearles likewise will thrive and grow bigge; but if in the time it doth chance to lighten, then they close their shells together, and for want of nourishment

A rishment are kept hungrie and fasting, and so the pearles keepe at a stay and prosper not accordingly. But if it thunder withall, then suddenly they shut hard at once, and breed only those excellences which be called Phisemata, like vnto bladders putt vp and hooued with wind, & no corporal substance at all: and these are the abortiue & vntimely fruits of these shel fishes. Now those that haue their full perfection, and be found and good indeed, haue many folds and skins wherein they be lapt, not vnproperly as it may be thought, a thicke, hard, and callous rind of the body, which they that be skillfull do pill and cleanse from them. Certes, I cannot chuse but wonder how they should so greatly be affected with the aire, and joy so much therein: for with the same they wax red, and lose their natieue whitenesse and beau. ie, exen as the bodie of a man or woman that is caught and burnt with the sun. And therefore those shels that keep in the maine sea, and lie deeper than that the sun-beames can pierce vnto them, keep the finest and most delicate pearles. And yet they, as orient as they be, waxe yellow with age, become riuclcd, and looke dead without any liuely vigor: so as that commendable orient lustre (so much sought for of our great lords and costly dames) continueth but in their youth, and decaieith with yeares. When they be old, they will proue thicke and grosse in the very shels, and stick fast vnto their sides, so as they cannot be parted from them, vnlesse they be filed asunder. These haue no more but one faire face, and on that side are round, for the backe part is flat and plaine; and hereupon such are called Tympania, as one would say, Bell beares. We see daily of these shells which serue as boxes to carrie sweet perfumes and precious ointments, and most commendable they are for this gift, that in them there be pearls of this sort naturally growing together like twins. The pearle is soft and tender so long as it is in the water, take it forth once and presently it hardeneth. As touching the shell that is the mother of Pearle, as soon as it perceiueith and feeleth a mans hand within it, by and by she shutteth, and by that means hideth and couereth her riches within: for well woteth she that therefore she is sought for. But let the fisher looke well to his fingers, for if she catch his hand between, off it goeth: so trenchant and sharp an edge she carrieth, that is able to cut it quite a two. And verily this is a just punishment for the theefe, and none more: albeit she be furnished and armed with other means of reuenge. For they keep for the most part about craggie rocks, and are there found: and if they be in the deepe, accompanied lightly they are with curst Sea-dogs. And yet all this will not serue to skar men away from fishing after them: for why? our dames and gentlewomen must haue their eares behanged with them, there is no remedie. Some say, that these mother-pearles haue their kings and captains, as Bees haue: that as they haue their swarms led by a master Bee, so euery troupe and companie of these, haue one speciall great and old one to conduct it; and such commonly haue a singular dexteritie and wonderfull gift to preuent and auoid all dangers. These they be that the dyvers after pearles are most carefull to come by: for if they be once caught, the rest scatter asunder and be soone taken vp within the nets. When they be thus gotten, it is said that they be put vp into earthen pots and well couered with salt: and when the salt hath eaten and consumed all the flesh within, then certaine kernels that were within their bodies (and those be the very pearles) fall down and settle to the bottome of those pots. There is no doubt but with much vse they will weare, yea and change colour thorough negligence, if they be not well looked vnto. Their chief reputation consisteth in these fise properties, namely, if they be orient white, great, round, smooth, and weightie. Qualities I may tell you, not easily to be found all in one: inso-much as it is impossible to find out two perfectly sorted together in all these points. And hereupon it is, that our dainties and delicates here at Rome, haue deuised this name for them, and call them Vnions; as a man would say, Singular, and by themselves alone. For surely the Greeks haue no such tearmes for them, neither know they how to cal them: nor yet the Barbarians, who found them first out, otherwise than Margaritæ. In the very whitenesse it selfe, there is a great difference among them. That which is found in the red sea, is the clearer and more orient. As for the Indian pearle, it resemblith the skales and plates of the stone called Specularis; howsoeuer otherwise it passeth all others in greatnesse. The most commendation that they haue is in their colour, namely, if they may be truly called Exaluminati, orient and cleare as Alume. They that be goodly great ones, are commendable in their degree. As for those that are long and pointed vpward, growing downward broader and broader like a peare, or after the manner of Alabastr boxes, full and round in the bottome, they be called Elenchi. Our dames take a great pride in a brauerie, to haue these not only hang dangling at their fingers, but also two or

three of them together pendant at their eares. And names they haue forsooth newly deuised for them, when they serue their turne in this their wanton excesse and superfluitie of roioit: for when they knocke one against another as they hang at their eares or fingers, they call them *Crotalia*, i. Cymbals: as if they tooke delight to heare the sound of their pearles ratling together. Now adayes also it is growne to this passe, that meane women and poore mens wiues affect to weare them, because they would be thought rich: and a by-word it is amongst them, That a faire pearle at a womans eare is as good in the street where she goeth as an huisher to make way, for that euery one will giue such the place. Nay, our gentlewomen are come now to weare them vpon their feet, and not at their shoo latches only, but also vpon their startops and fine buskins, which they garnish all ouer with pearle. For it wil not suffice nor serue their turne to carie pearles about them, but they must tread vpon pearles, goe among pearles, and walke as it were on a pavement of pearles.

Pearles were wont to be found in our seas of Italie, but they were small & ruddie, in certain little shell fishes which they call *Myæ*: but more plenty of such were taken vp in the streights of Bosphorus neere Constantinople. Howbeit, in Acarnania there is a little *Cochle* called *Pinna*, i. a Nacre, which engendreth such. Whereby it may appeare, that there be more than one sort of Mother-pearles. For king *Inba* likewise hath left in writing, that in Arabia there is a kind of shell fish like vnto a Scallop, saue that it is not chamfered, but thick and rough like a sea Vrchon, which beares Pearles within the very flesh of the fish, like vnto haile stones. But now adayes there be no such mother-pearles come to our coasts. Neither be there found in Acarnania any of value and reputation. For why they are all in manner without proportion, neither round nor weighty, and of a marbled colour. They rather about the cape of *Ægium* are better, and yet they be but little ones: like as they also which are taken in the coasts of Mauritania. *Alexander Polyhistor*, and *Sudmes*, are of opinion that they will age, and in the end lose their colour. That they bee tollid and not hollow within, is euident by this, that with no fall they will breake. But they be not alwaies found in the midst of the flesh within the mother-pearles, but here & there, sometime in one place, and sometime in another. Verily I haue seene of them about the brim and edges of the shell, as if they were readie to goe forth: and in some 4, in others five together. Vnto this day few of them haue been knowne to weigh about halfe an ounce and one scruple. In * Brittain it is certain that some do grow; but they be small, dim of colour, and nothing orient. For *Iulius Cesar* (late Emperour of famous memorie) doth not dissimule, that the cuirace or breast-plate which he dedicated to *Venus* mother within her temple, was made of English pearles.

Imy selfe haue seene *Lollia Paulina* (late wife, and after widow, to *Caius Caligula* the emperor) when she was dressed and set out, not in stately wise, nor of purpose for some great solemnity, but only when she was to go to a wedding supper, or rather vnto a feast when the assurance was made, & great persons they were not that made the said feast: I haue seene her, I say, so beset and bedecked all ouer with hemeraulds and pearles, disposed in rewes, ranks, and courses one by another round about the attire of her head, her cawle, her borders, her peruk of hair, her bondgrace and chaplet; at her eares pendant, about her neck in a carcanet, vpon her wrest in bracelets, & on her fingers in rings; that she glittered & shon again like the sun as she went. The value of these ornaments, she esteemed and rated at * 400 hundred thousand Sestertij: and offered openly to proue it out of hand by her bookes of accounts & reckonings. Yet were not these jewels the gifts and presents of the prodigall prince her husband, but the goods and ornaments from her owne house, fallen to her by way of inheritance from her grandfather, which he had gotten together euery by the robbing and spoiling of whole provinces. See what the issue and end was of those extortions and outrageous exactions of his: this was it, That *M. Lollius* slandered and defamed for receiuing bribes & presents of the kings in the East; and being out of fauor with *C. Cesar*, sonne of *Augustus*, and hauing lost his amitie, dranke a cup of poison, and preuented his iudiciall triall: that forsooth his necce *Lollia*, all to be hanged with jewels of 400 hundred thousand Sestertij, should be seene glittering, and looked at of euery man by candle-light all a supper time.

If a man would now of the one side reckon what great treasure either *Curius* or *Fabricius* carried in the pompe of their triumphs; let him cast a proffer and imagine what their shews were, what their seruice at the table was: and on the other side, make an estimate of *Lollia*, one only woman

* England.

* 40 millions.

A man, the dowager of an Emperour, in what glory she sitteth at the board, would not be with rather, that they had been pulled out of their chariots, and neuer triumphed, than that by their victories the state of Rome should haue grown to this wastfull excesse & intollerable pride: And yet this is not the greatest example that can be produced of an exceffiue riot and prodigallitie.

Two only pearles there were together, the fairest and richest that euer haue beene knowne in the world: and those possessed at one time by *Cleopatra* the last queen of Egypt, which came into her hands by means of the great kings of the East, and were left vnto her by descent. This princeesse, when *M. Antonius* had strained himselfe to doe her all the pleasure he possibly could, & had feasted her day by day most sumptuously, & spared for no cost: in the hight of her pride and wanton brauerie (as being a noble curtezan, and a queene withall) began to debase the expence and prouision of *Antonie*, and made no reckoning of all his costly fare. When he thereat

B demanded againe how it was possible to goe beyond this magnificence of his, she answered againe, that she would spend vpon him at one supper * 100 hundred thousand Sestertij. *Antonie*, who would needs know how that might bee (for he thought it was impossible) laid a great wager with her about it, and shee bound it againe, and made it good. The morrow after, when this was to be tried, and the wager either to be won or lost, *Cleopatra* made *Antonie* a supper (because she would not make default, and let the day appointed to passe) which was sumptuous and roial ynough: howbeit, there was no extraordinary seruice seene vpon the board: whereat *Antonie* laughed her to scorne, and by way of mockerie required to see a bill with the account of the particulars. She againe said, that whatsoever had been serued vp already, was but the ouerplus

C vp the full summe that she was seized at: yea, her selfe alone would eat about that reckoning, and her owne supper should cost * 600 hundred thousand Sestertij, and with that commanded the second seruice to be brought in. The seruitors that waited at her trencher (as they had in charge before) set before her one only crewet of sharpe vinegar, the strength whereof is able to resolute pearles. Now she had at her eares hanging these two most precious pearles, the singular and only jewels of the world, and euen Natures wonder. As *Antonie* looked wistly vpon her, and expected what shee would doe, shee tooke one of them from her eare, steeped it in the vinegar, and so soon as it was liquified, dranke it off. And as shee was about to doe the like to the other, *L. Plancius* the iudge of that wager, laid fast hold vpon it with his hand, and pronounced withal, That *Antonie* had lost the wager. Whereat the man fell into a passion of anger. There was an end

D of one pearle: but the fame of the fellow thereof may goe with it: for after that this braue queen the winner of so great a wager, was taken prisoner and deprived of her roiall estate, that other pearle was cut in twaine, that in memoriall of that one halfe supper of theirs, it should remaine vnto posteritie, hanging at both the eares of *Venus* at Rome, in the temple of Pantheon. And yet as prodigall as these were, they shall not go away with the prize in this kinde, but shall lose the name of the chiefe and principall, in superfluitie of expence. For long before their time, *Clodius* the sonne of *Æscopie* the Tragedian Poet, the only heire of his father, who died exceeding wealthy, practised the semblable in two pearles of great price: so that *Antonie* needeth not to be ouer proud of his Triumvirate, seeing that he hath to match him in all his magnificence, one little better than a stage-plaier: who vpon no wager at all laid, (and that was more princely, and done like a king) but only in a brauerie, and to know what taft pearles had, mortified them in venegre, and drunke them vp. And finding them to content his pallat wondrous well, because he would not haue all the pleasure by himselfe, and know the goodnesse thereof alone, he gaue to euery guest at his table one pearle apeece to drinke in like manner.

Fenestella writeth, that after Alexandria was conquered and brought vnder obedience to the Romans, Pearles were rise at Rome, and commonly vsed of euery man: also, that about the troublesome time of *Sylla* they began first to be in request: and those were but small ones, and of no price. Howbeit, he is grossely deceiued, and in a great error. For *Ælius Stilo* doth report in his Chronicle, that in the time of warre against *Iugurtha*, the faire and goodly great pearles began

F to be named *Vniones*. These Pearles (to say a truth) are of the nature (in a manner) of an inheritance to descend by perpetuitie. They follow commonly in right the next heires. When they passe in saile, they go with warrantize, in as soleme manner as a good lord ship.

As for the rich Purples, and the precious Conchylyes, euery coast is full of them. And yet to that

* 20 millions

* 60 millions

that excesse and prodigallie we are now growne, and out wanton riot (the mother of all inordinate and wastfull expence) hath made them well neere as deere as Pearles.

CHAP. XXXVI.

¶ *The nature of purple fishes, and the Murex or Burret.*

Purples liue ordinarily seuen yeers. They lie hidden for 30 daies space about the dogdaies, like as the Murices or Burrets do. They meet together by troupes in the spring, and with rubbing one against another, they gather and yeeld a certaine clammy substance and moisture in manner of waxe. The Murices doe the like. But that beautifull colour, so much in request for dying of fine cloth, the Purples haue in the midst of the neck and jawes. And nothing else it is, but a little thin liquor within a white veine: & that is it which maketh that rich, fresh, and bright colour of deepe red purple roses. As for all the rest of this fish, it yeeldeth nothing. Fishers strue to get them aliue, for when they die, they cast vp and shed that precious teinture and juice, together with their life. Now the Tyrians, when they light vpon any great Purples, they take the flesh out of their shels, for to get the bloud out of the said veine: but the lesser, they presse and grind in certain milles, and so gather that rich humor which issueth from them. The best purple colour in Asia is this, thus gotten at Tyros. But in Africke, within the Island Melinx, and the coast of the Ocean by Getulia. And in Europe, that of Laconia. This is that glorious colour, so full of state and maiestie, that the Roman Lictors with their rods, halberds, and axes make way for: this is it that graceth and setteth out the children of princes and noblemen: this maketh the distinction between a knight and a counsellor of state: this is called for & put on when they offer sacrifice to pacifie the gods: this giueth a lustre to all sorts of garments: to conclude, our great Generals of the field, and victorious capitaines in their triumphs weare this purple in their mantels, enterlaced and embrodered with gold among. No maruell therefore if Purples be so much sought for: and men are to be held excused, if they run a madding after Purples. But how should the other shell-fishes called Conchyliia, be so deere and high prized, considering the teincture of them carries so strong and stinking a fauor, so sullen and melancholic a colour, enclining to a blew or watchet, and resembling rather the angrie and raging sea in a tempest? But to come to the particular description. The Purple hath a tongue of a finger long, pointed in the end so sharpe, and hard withall, that it is able to bore an hole and pierce into other shell-fishes, and thereby thee feeds and gets her liuing. In fresh water they will die all, or if they be plunged and throwne in any riuer: otherwise, after they be taken, they will continue aliue 30 daies, euen with that viscous and slimie humor of their owne. All shell-fish in general grow apace in a very small time: but Purples soonest of all others: for in one yere they will come to their full bignesse. Now, if I should lay a straw here, and proceed no further in this discourse of Purples and such like, surely our luxurious and riotous spendthrifts would thinke they had great wrong, and were defrauded of their right: they might I say complaine of me, & condemne me of idlenesse, and negligence. Therefore I care not much to put my head within the diers shops and work-houses: that like as euery man for the necessity of this life, knows how the price of corne goes; euen so our fine folke and brave dainties, who take such pleasure and delight in these colors, may be perfect: what is the reason of this their only life. In the first place, these shell-fishes that serue either for purple colors, or other lighter dyes of the Conchyliia, are all one in matter: the difference only is in temperature more or lesse. And indeed, reduced they may all be into two principall sorts. For the lesse shell called Buccinum, fashioned like vnto that horn or cornet, wherewith they vse to wind and sound, whereupon in tooke that name, hath a round back, and is cut like a saw in the edges. The other is named Purpura, shooteth out a long backe like a gurtur, and within the one side it doth writhe and turne hollow in forme of a pipe, out of which the fish puts forth a tongue. Moreover, this Purple is bestudded (as it were) euen as far as to the sharpe top or turbant thereof round about with sharpe knobs pointed, lightly seuen in number: which the sea-cornet Buccinum hath not. But this is common to both, that looke how many roundles they haue like tendrils clasping about them, so many yeares old they bee. As for the Corner Buccinum, it sticketh alwaies to great stones and rockes, and therefore is euer found and gathered about them.

CHAP.

CHAP. XXXVII.

¶ *How many sorts there be of Purples.*

Purples haue another name, and be called Pelagia, as one would say, Fishes of the deep sea. But in truth there be many sorts of them, & those differing either in place where they keep, or in food wherof they liue. The first Lutensey, muddy, because it is nourished of the corrupt and rotten mud: the second Algense (the worst of all) feeding vpon reits or sea weeds named Alga: the third, Taniense (better than the former twaine) for that it is gathered and taken vp about the brims & borders of the sea, called for the resemblance of fillets or lists in a cloth, Tania. And yet this kind yeeldeth but a light colour, and nothing deepe: there be of them also, which they terme Calculosa, of the sea grauell, which is wondrous good for all these kinde of wilkes and shell fishes. And last of all, which simply be the very best, the Purples Dialetæ, that is to say, wandring too and fro, changing their pasture, and feeding in lundry soils of the sea (the muddy, the weedie, and the grauelly.) Now these Purples are taken with small nets, and thinn wrought, cast into the deep. Within which, for a bait to bite at, there must be certain winckles and cockles, that will shut and open, & be ready to snap, such as we see these limpins be, called Mituli. Halfe dead they should be first, that being new put into the sea again, & desirous to re-viue and liue, they might gape for water: and then the Purples make at them with their pointed tongue, which they thrust out to annoy them: but the other feeling themselves pricked therewith, presently shut their shels together, & bite hard. Thus the Purples for their greedinesse are caught and taken vp, hanging by their tongues.

CHAP. XXXVIII.

¶ *The fishing time for Purples.*

The best time to take Purples, is after the dog star is risen, & before the Spring: for, when they haue made that viscous musilage in manner of wax, their iuice and humour for colour is ouer liquid, thin, & waterish. And yet the purple diers know not so much, nor take heed thereof, whereas indeed the skill thereof is a speciall point of their art, and wherein lieth all in all. Well, when they are caught, as is abouesaid, they take forth that vein before mentioned; and they lay it in salt, or else they do not well: with this proportion ordinarily, namely, to euery hundred weight of the Purple liquor, a Sextier or pint and halfe of salt. Full three dayes and no more it must thus lie soking in powder. For the fresher that the colour is, so much is it counted richer and better. This done, they seeth it in leads, & to euery Amphore, (which containeth about eight wine gallons) they put one hundred pound and a halfe just, of the colour so prepared. Boile it ought with a soft and gentle fire, and therefore the tunnel or mouth of the furnace must be a good way off from the lead and chawdron. During which time, the workemen that tend the lead, must est soones skim off and clense away the fleshie substance, which cannot cluse but stick to the veines which containeth the iuice or liquor of purple before said. And thus they continue 10 daies, by which time ordinarily the lead or vessell wil shew the liquor cleere, as if it were sufficiently boiled. And to make a triall thereof, they dip into it a fleece of wool wel rensed & washt out of one water into another: & till such time, that they see it giue a perfect dye, they stil ply the fire, & giue it a higher seething. That which staineth red, is nothing so rich as that which giueth the deepe & sad blackish color. When it is come to the perfection, they let the wooll lie to take the liquor 5 houres: then they haue it forth, touse and card it, and put it in againe, vntill it hath drunke vp all the colour, as much as it will. Now this is to be obserued, that the sea cornet Buccinum makes no good colour of it selfe: for their dye wil shed & lose the lustre. And therefore vsually they ioine to it the sea Purple Pelagium, which makerh too deepe and brown a colour: vnto which it giueth a fresh & liuely teinture, as it were in grain, and so maketh that sad purple which they desire. Thus by mixing & medling the force of both together, they mend one another, while the lightnesse or sadnesse of the one doth quicken and raise, or els dorr and take downe the colour of the other. To the dying of a pound of wooll, they vse this proportion of two hundred Buccina or sea Cornets, ioined with a hundred and eleuen Pelagian Purples: & so commeth that rich Amethyst or purple violet colour, so highly commended.

mended aboue all other. But the Tyrians make their deep red purple, by dipping their wool first in the liquor of the Pelagian purples only, whiles it is not thoroughly boiled to the heigh, but as it were green yet and vnripe; and therof they let it take what it can drinke. Soone after they change it into another caudron or lead, where the colour of the sea Cornets alone is boiled. And then it is thought to haue a most commendable and excellent dye, when it is as deep a red as blood that is cold and settled, blackish at the first sight, but looke between you and the light, it carieth a bright and shining lustre. And hereupon it is, that *Homer* calleth blood, Purple.

CHAP. XXXIX.

¶ When they began at Rome to weare Purple first.

I Find in Chronicles, that Purple hath bin vsed in Rome time out of mind. Howbeit, *K. Romulus* neuer ware it but in his roial habit or mantle of estate, called *Trabea*. And wel known it is, that *Tullus Hostilius* was the first Roman king, who after he had subdued the Tuscanes, put on the long purple robe named *Pretexta*, and the cassock broched & studded with scarlet in broad guards. *Nepos Cornelius* who died in the daies of *Augustus Caesar* the Emperor, When (quoth he) I was a yong man, the light violet purple was rife and in great request, & a pound of it was sold for a * 100 deniers: and not long after the Tarentine red purple or skarlet was much called for, and of the same price. But after it, came the fine double died purple of Tyros, called *Dibapha*: and a man could not buy a pound of it for a * 1000 deniers, which was the price of ten pound of the other. *P. Lentulus Spinther* in his Edileship of the chaire, first ware a long robe embrodered with it, and was checked and blamed therefore. But now adaies (quoth *Nepos*) what is he that will not hang his parlour and dining chamber therewith, and haue carpets, cushiones, & cupboard clothes thereof. And it is no longer ago when *Spinther* was Edile, than in the seuen hundredth yeare after the foundation of Rome, euen when *Cicero* was Consul. This purple in those daies was called *Dibapha*, i. twice died: & that was counted a matter of great cost, & very state-ly withall and magnificent. But now ye shall haue no purple cloths at all of any reckoning, but they haue their double die. As for the cloth died with the purple of the shel-fish *Conchylia*, the maner of making the colour, and dying in all respects is the same, saue that there be no sea Cornets vsed thereto. Moreouer, the iuice or liquor for that colour, is tempered with water in stead of the filthy pisse and vrine of a man, altogether vsed in the other: and therein is sodden but the halfe proportion of colours to the foresaid tinctures. And thus is made that light pale stammel so highly commended, for being short of the deep rich colour: and the lesse while that the wooll is suffered to drinke the fill, the more bright and fresh it seemeth.

CHAP. XL.

¶ The prices of wooll died with these colours.

AS for these colours, they are valued dearer or cheaper, according to the coasts where these fishes are gotten more or lesse. Howbeit, it was neuer known that in any place, a pound of the right purple wooll, died with the Pelagian colour, or of the colour it selfe, was more worth than * 500 Sesterces: nor a pound of the Corners purple cost aboue one hundred. I would they knew so much that pay so deare for these wares by retaile here at home, and cannot haue them, but at an excessiue rate. But here is not all, neither is this an end of expence that way, for one still draweth on another: and men haue a delight to spend and lay on still one thing after another: to make mixtures and mixtures again, and so to sophisticate the sophistications of Nature: as namely to paint and die their feelings, euen the very embowed roofs and arches in building: to mix and temper gold and siluer together, therewith to make an artificiall metall *Electrum*: and by adding brasse or copper thereto, to haue another metall, counterfeiting the Corinthian vessels.

CHAP. XLI.

¶ The manner of dying the Amethyst, Violet, or Purple, the Chrymson and Scarlet in grain, and the light Stammel or Lustie-gallant.

It would not suffice our prodigal spendthrifts to rob the precious stone Amethyst of his name, and to apply it to a colour; but when they had a perfect Amethyst die, they must haue it to be drunken

A drunken againe with the Tyrean purple, that they might haue a superfluous and double name compounded of both (Tyriamethistius) correspondent to their two-fold cost and duple superfluitie. Moreouer, after they haue accomplished fully the colour of the *Conchylum*, they are not content vntill they haue a second die in the Tyrian purple lead. It should seeme, that these double dies and compounded colours, came first from the errour and repentance of the workeman when his hand missed: and so was forced to change and alter that which he had done before, and vtterly misliked. And hereof forsooth is come now a pretty cunning and art thereof: and the monstrous spirits of our wastfull persons are grown to wish and desire that, which was a fault amended first: and seeing the two-fold way of a double charge and expence troden before them by the diers, haue found the meanes to lay colour vpon colour, and to ouercast and strike a rich die with a weaker, so that it might be called a more pleasant and delicate colour. Nay it will not serue their turn to mingle the aboue-said tinctures of sea fishes, but they must also do the like by the die of land-colours: for when a wooll or cloth hath taken a crimson or skarlet in graine, it must be died againe in the Tyrian purple, to make (I would not else) the light, red, and fresh Lustie-gallant.

As touching the Graine, seruing to this tincture, it is red, and commeth out of Galatia, (as we shall shew in our story of earthly plants) or else about Emerita in Portugall, and that of all other is of most account. But to knit vp in one word these noble colours, note this, That when this Graine is but of one yeres age, it maketh but a weake tincture; but after foure yeeres, the strength thereof is gone. So that neither young nor old it is of any great vertue. Thus I haue sufficiently and at large treated of those means which men and women both, so highly esteeme, and thinke to make most for their state and honourable port, and setting out of themselves in the best manner.

CHAP. XLII.

¶ Of the Nacre, and his guide or keeper, Pinnoter: and the percei- uance of fishes.

THE Nacre also called *Pinnæ*, is of the kind of shell-fishes. It is alwaies found and caught in muddie places, but neuer without a companion, which they cal *Pinnoter*, or *Pinnophylax*. And it is no other but a little shrimpe, or in some places, the smallest crab, which beareth the Nacre companie, and waies vpon him for to get some vituals. The nature of the Nacre is to gape wide, and sheweth vnto the little fishes her feelie body, without any eie at all. They come leaping by and by close vnto her: and seeing they haue good leaue, grow so hardie and bold, as to skip into her shel & fill it full. The shrimpe lying in spiall, seeing this good time and opportunitie, giueth token thereof to the Nacre, secretly with a little pinch. She hath no sooner this signall, but she shuts her mouth, and whatsoeuer was within, crushes and kills it presently: and then she deuides the boorie with the little crab or shrimpe, her sentinell and companion. I maruell therefore so much the more at them who are of opinion, that fishes and beasts in the water haue no sence. Why, the very Cramp-fish *Torpedo*, knowes her own force & power, and being her selfe not benumbed, is able to astonish others. She lieth hid ouer head and cares within the mud vnseen, ready to catch those fishes, which as they swim ouer her, be taken with a nummednesse, as if they were dead. There is no meat in delicate tendernesse, preferred before the liuer of this fish. Also the fish called the * sea-Frog, (and of others the sea-Fisher) is as crafty euery whit as the other: It puddereth in the mud, and troubleth the water, that it might not be seen: and when the little feely fishes come skipping about her, then she puts out her little hornes or Barbils which she hath bearing forth vnder her eies, and by little and little tilth and tolleth them so neere, that she can easily seaze vpon them. In like manner the Skate and the Turbot lie secret vnder the mud, putting out their finnes, which stir and crawl as if it were some little wormes; and all to draw them neer, that she might entrap them. Euen so doth the Ray-fish or Thorn-back. As for the Puffen or Fork-fish, he lieth in await like a theefe in a corner, ready to strike the fishes that passe by with a sharpe rod or pricke that he hath, which is his weapon. In conclusion, that this fish is very subtil and crafty, this is a good prooffe, That being of all others most heauie and slow, they are found to haue in their bellie the Mulllets, which of all others be the swiftest in swimming.

Alluding to the word Amethyst, which resists drunkennesse.

* Diabla de Mare

¶ *Of the Scolopendres, the sea-Foxes, and the Glanis.*

These Scolopendres of the sea, are like to those long earewigs of the land, which they call Centipedes, or many-feet. The maner of this fish is this, when she hath swallowed an hook to cast vp all her guts within, vntill she hath discharged her self of the said hook, and then she swups them in againe. But the sea-Foxes in the like danger haue this cast with them, namely to gather in and let it go downe into the throat more and more fill of the line, vntill he come to the weakest part thereof, which he may easily fret and gnaw asunder. The Glanis is more slie and warie than they both: for his propertie is to bite at the backe of the hooke, and not to gobble it vp whole, but nibble away all the bait, and leaue the hooke bare.

¶ *Of the Ram-fish.*

This fish is a very strong thief at sea, and makes foule work where he comes: for one while he squats close vnder the shade of big ships that ride at anker in the bay, where he lies in ambush to wait when any man for his pleasure would swim and bath himselfe, that so he might surprise them: otherwhiles he puts out his nose about the water, to spie any small fisher boats comming, and then he swimmeth close to them, ouerturneth and sinketh them.

¶ *Of those that haue a third or middle nature, and are neither lining creatures nor yet Plants: also of the sea-Nettle-fishes, and Spunges.*

I Verily for my part am of opinion, that those which properly are neither beasts nor plants, but of a third nature between or compounded of both (the sea-Nettles I mean, and Spunges) haue yet a kinde of sense with them. As for those Nettles, there be of them that in the night raunge too and fro, and likewise change their colour. Leaues they carry of a fleshie substance, and of flesh they feed. Their qualitie is to raise an itching smart, like for all the world to the weed on the land so called. His manner is, when he would prey, to gather in his body as close, streight and stiffe as possibly may be. He spieth not so soon a silly little fish swimming before him, but he spraddeth and displaieth those leaues of his like wings, with them he claspeth the poore fish, and so deuoures it. At other times, he lies as if he had no life at all in him, suffering himselfe to be tossed and cast too and fro among the weeds, with the waues of the sea: and look what fish soeuer he toucheth as he is thus floating, hee sets a smart itch vpon them, and whiles they scratch and rub themselues against the rockes for this itch, hee sets vpon them and eates them. In the night season he lieth for sea-Vrchens and Scalops. When he feeleth ones hand to touch him, he changeth colour, and draweth himselfe in close together on a heape: and no sooner toucheth he one, but the place will itch, sting, and be ready to blister: make not good hast to catch him quickly, he is hidden out of hand and gone. It is thought verily, that his mouth lyeth in his roote, and that he voideth his excrements at a small pipe or issue aboue, where those fleshie leaues are.

Of Spunges, we find three sorts: the first thicke, exceeding hard, and rough; and this is called Tragosia second, nor all so thicke, and somewhat softer; and that is named Manon: the third is fine and yet compact, wherewith they make sponges to cleanse and scouere withall, and this is tearmed Achilleum. They grow al vpon rockes: and are fed with wilkes or shel-fish, with naked fish and mud. That they are not senselesse, appeares hereby, for that when they feele that one would pluck them away, they draw in and retire back hard, so as with greater difficulty they are pulled from the rocke. The like doe they when they be beaten vpon with waues. That they liue vpon some food, it is manifest by the little coquill & muscle shels that be found within them. And some say, that about Torone they continue still aliuie after they be pulcked from the rockes: and that of the roots which are left behind, they grow againe. Moreouer, vpon those rocks from whence they be pulled, there is to be seen as it were some bloud sticking, & especially in those of Africke, which breed among the Syrtes. The Manæ, which otherwife be the least, become very great & most soft withall, about Lycia. But they be more delicate which are nourished in the

A the deep gulfes, where least wind or none is stirring. The rough kind are in Hellespont: and the fine and masse, about the cape Malea. In sun-shine places they will corrupt and putrifie; and therefore the best are in the deep gulfes and creeks, not exposed to the Sun. They be of the same dusk and blackish colour when they liue, as they are afterwards being foked & full of moisture. They cleaue to rocks neither by any one part, nor yet entire and whole all ouer: for there are between, certain void pipes 4 or 5 commonly, by which they are supposed to receiue their food and nourishment. There be more of these pipes and concavities, but about they are grown together hard and not hollow. A certain pellicle or thin skin a man may perceiue them to haue at their roots. For certain it is knowne, that they liue long. The worst kind of them all, be those that are called Aplysiæ, because vnneth they may bee separated, nor clenfed and made cleane, they are so foule, for great pipes they haue; thicke they are besides throughout, and very masse.

¶ *Of Hound-fishes or Sea-dogs.*

The dyuers that vse to plunge into the sea, are annoied very much with a number of Sea-hounds that come about them, and put them in great jeopardie. And they say, that these fishes haue a certain dim cloud or thin web, growing & hanging ouer their heads, resembling broad, flat, and gristly fishes, which clingeth them hard, and hindreth them from retiring backe and giuing way. For which cause the said dyuers (as themselues say) carry downe with them certain sharp pricks or goads fastened to long poles: for vnlesse they be proked at and pricked with them, they will not turn their backe; by reason (as I suppose) of a mist before their eies, or rather of some feare & amazednesse that they be in. For I neuer heard of any man that found the like cloud or mist (for this term they giue vnto that unhappie thing what-euer it be) in the range of liuing creatures. But yet much ado they haue and hard hold with these Hound-fishes notwithstanding; for they lay at their bellies and groines, at their heeles, and snap at euery part of their bodies that they can perceiue to be white. The onely way and remedy is to make head directly affront them, and to begin with them first, and so to terrifie them: for they are not so terrible to a man, but they are as afraid of him againe. Thus within the deepe they are indifferent ly euen matched: but when the dyuers mount vp and rise againe aboue water, then there is some ods betweene, and the man hath the disaduantage, and is in more danger; by reason that whiles he laboureth to get out of the water, he faileth of means to encounter with the beast, against the streame and sourses of the water. And therefore his only recourse is, to haue help and aid from his fellowes in the ship; for hauing a cord tied at one end about his shoulders, he shaketh it with his left hand, to giue signe what danger hee is, whiles hee maintaineth fight with the right, by taking into it the puncheon with the sharpe point before said; and so at the other end they draw him to them: and they need otherwife to pull and hale him but softly: many when he is neere once to the ship, vnlesse they giue him a sudden jerke and snatch him vp quickly, they may be sure to see him worried and deuoured before their face; yea and when they are at the point to be plucked vp, and euen now ready to go aboard, they are many times caught away out of their fellowes hands, if they bestir not themselues the better, and put their owne good will to the help of them within the ship; namely, by plucking vp their legs and gathering their bodies nimble together round as it were in a ball. Well may some from ship-board proke at the dogs aforesaid with forks; others thrust at them with Trout speares & such like weapons, and all neuer the neerer, so craftie and cautelous is this foule beast, to get vnder the very belly of the barke, and so maintain combat in safety. And therefore all the care that these fishers haue, is to prouide for this mischief, and to lie in wait for to entrap these felly, unhappie, and shrewd monsters.

¶ *Of those fishes that lie within a stonie and hard flintie shell: also of those that haue no sense: and of other nastie and fishie creatures.*

The greatest securitie that fishers and dyuers haue of safety, is when they see the broad flat gristly fishes; for certain it is, that they be neuer in any place where hurtfull and noisome beasts

beasts do haunt: which is the cause that these dyuers which ducke and plunge for sponges, call G those fishes Sacred.

We must needs confesse, that fishes within stone shels, haue small or no sense, as namely oysters. Many are of the nature of very Plants, to wit, those that they call Holothuria: also Pulmones, resembling the lungs of a beast: and Star-fishes, made in forme of stars (such stars I meane as it pleaseth the Painter to draw.) In sum, what is there not bred within the sea? Euen the very fleas that skip so merily in summer time within victualling houses and Inns, and bite so shroudly: as also lice that loue best to lie close vnder the haire of our heads, are there engendred & to be found: for many a time the fishers twitch vp their hooks, and see a number of these skippers and creepers settled thicke about their baits which they laied for fishes. And this vermine is thought to trouble the poore fishes in their sleep by night within the sea, as well as vs on the land. Last of all, some fishes there be, which of themselves are giuen to breed fleas and lice, among which the Chalcis, a kind of Turbot, is one. H

CHAP. XLVIII.

¶ Of venomous Sea-fishes.

Moreouer, the sea is not without her deadly poisons: for the Sea-hare, which keepeth in the Indish sea, is so venomous, that the very touching of him is pestiferous, & presently causeth vomiting and ouerturning of the stomacke, not without great danger. They which be found in our sea, seeme to be a peece or lump of flesh without all forme or fashion, in colour only resembling the land Hare. But with the Indians they be full as big, and resemble their Hare, only it is more stiffe and hard. And verily they cannot possibly be taken there alieu. The dragon or spider of the sea, is as dangerous & mischieuous a creature as the other: and with the pricks that stick forth of his chine and back-bone, hee doth much hurt. But in no place is there any more detestable and pernicious, than is the pike, that standeth out vpon the taile of Trigonius, which we in Latine call *Pastinaca*, i. the Puffin or Forkfish of the sea; the which pike is fise inches long. So venomous it is, that if it be stricken into the roote of a tree, it killeth it: it is able to pierce a good cuirace or iacke of buffe, or such like, as if it were an arrow shot or a dart lanced: but besides the force and power that it hath that way answerable to yron & Steele, the wound that it maketh is therewith poisoned. K

CHAP. XLIX.

¶ Of Fishes diseases.

We do not heare or reade, that all sorts of fishes in generall be subiect to maladies and diseases, as other beasts, and euen those that are wilde and sauage. But that this or that fish in euery kinde may be sicke, it appeareth euidently, that some of them mislike and come to be carrion leane; whereas others of the same sort, be taken, not only in good plight, but exceeding fat.

CHAP. L.

¶ The wonderfull manner of their generation.

In what sort fishes do engender, if I should not in this place shew, but put it off farther, I should do great wrong to mankind, who desire to know it, as much as they wonder how it should be. In one word, fishes ingender by the friction and rubbing of their bellies one against another: which they performe with such celeritie, that no eye is so quicke as to note and obserue it. Dolphins, and other great whales, haue no other way but that, many they are longer somewhat about their businesse. The spawner, when the time serueth for generation, followeth after the male, and neuer linneth pecking and iobbing at his belly with her muzzle. Semblably a little before spawning time, the milters follow after the female, only for that they would eat their spawn when they haue cast it. But this is to be noted moreouer, that the foresaid mixture & ingendring of theirs is not sufficient to accomplish generation, vnlesse when their eggs be laid or spawne cast, both male and female take it betweene them and keepe a turning of it, thereby to

A to breath a liuely spirit into it, and as it were besprinkle it with a vitall dew, as it floteth vpon the water. But turne they it and tosse it, breath they vpon it as much as they will, yet all those little eggs of their spawne do not hit and come to prooffe: for if they did, all seas and lakes, and all riuers and pools would be so pestered ful with fishes, that a man would see nothing els: for there is not one of these females, but at once conceiue an infinite number in her belly.

CHAP. LI.

¶ More as touching the generation of fishes, and which they be that do spawne in manner of egges.

The spawne or eggs of Fishes in the sea, do grow vnto perfection, some of them exceeding soon, as that of the Lamprcies: others are later ere they do so. All flat and broad Fishes, such namely as haue no tails and sharp pricks to hinder (as haue the Thorn-backe, Skate, and Tortoises) when they engender, leap one another. The many foot Pour-cuttes in this action fasten one of their winding claws to the nose of the female. The Cuttels and Calamaries do the feat with their tongues or pipes rather thrust into their mouthes, clasping one another with their arms, and swimming one contrary to the other: and as they conceiue at the mouth, so they deliuer their fruit again at the mouth. This onely is the difference, that the the Calamaries in this businesse, beare their heads downward to the earth. As for those that are soft cruisted, they do it backward as dogs. Thus the Lobsters & Shrimpes ingender. Crabs at the mouth, Frogs leap one another: the male with the fore-feet clasps the arm-pits of the female, and with the hind-feet the hanches. That which is ingendred and brought forth, is as it were some little mites of blackish flesh, which they call Tadpoles or Polwigs, shewing no good form, but that they haue some shew of eies only, and a taile. Some few daies after, their feet are framed, & then parts their taile in twain, which serueth for their feet behind. And a strange thing it is of them: after they haue liued some 6 months, they resoluue into a slime or mud, no man seeth how: & afterward with the first rains in the Spring, returne again to their former state, as they were first shapen, no man know safter what fort, by a secret and vnknown way incomprehensible: notwithstanding it fals out ordinarily so euery yere. As for the Limpins, Muskles, and Scallops, they breed of themselves in the mud and sands of the sea. Those which are of an harder coat, as the Porcelanes and Purples, of a certain viscus and slimy substance like a muscilage. As for that little fry, resembling small gnats and flies of the sea, they come of a certaine putrifaction and fowerness of the water: as the Apue, which are the groundlings and Smies, of the some of the sea set in an heat & chafed after some good shewer. They that are couered with a stony shell, as Oysters, breed of the rotten and putrified slime & mud of the sea: or of the some that hath stood long about ships or stakes and posts set fast in the water, and especially if they bee of Holme wood. Howbeit, it hath bin found of late in Oyster pits, that there passeth from them in stead of Sperm a certain whitish humor like milk. As for Yeels they rub themselves against rocks and stones, and those scrapings (as it were) which are fretted from them, in time come to take life and proue snigs, and no other generation haue they. Fishes of diuers kinds engender not one with another, vnlesse it be the Skate and the Raish: and of them there commeth a fish, which in the forepart resembleth a Ray, & in Greeke hath a name compounded of both [Rhino-batos.] Other fishes there be that breed indifferently on land and sea, according to the warme season of the yere. In Spring time Scallops, Snailles, and Horleeches do engender, and by the same warmth quicken and come to life; but in Autumne they turn to nothing. The Pike & Sardane breed twice a yere, like as al stone fish: the Barbels thrice, as also a kind of Turbit called Chalcis, the Shad, the Carp 6 times: the Scorpenes, and Sargi twice, namely, in Spring and Autumne. Of flat broad Fishes, the Skate only twice in the yere, to wit, in Autumne, and at the setting or occultation of the star *Vergilia*. The greatest number of Fishes ingender for 3 moneths, April, May, & Iune. The Cods or Stockfishes in Autumne. The Sargi, Crampfishes, & Squall about the equinoctiall. Soft skinned Fishes in the spring: and the Cuttel in euery month. The spawn of this Fish, which hangeth together like a cluster of grapes, by the means of a certaine blacke glew or viscositie like inke, the Milter doth blow and breath vpon before it can be good, for otherwise it commeth to no prooffe. The Pour-cuttes engender in Winter, and in the Spring, and then bring forth a spawne crisped and curled (as it were) like the wreathing

branches and tendrils of a vine branch; and that in such plenty, that when they are killed they are not able to receiue and containe the multitude of their eggs in the concauitie or ventricle of their head and belly, which they bare when they were great. They hatch them in fifty daies, but many of them proue addle and neuer come to good, there is such a number of them. The Lobsters and the rest with thin shels, lay egge after egge, and sit vpon them in that manner. The female Pourcuttle, one while sitteth ouer her eggs, another while she couereth the cranie or gutter where she hath laid them, with her clawes and arms enfolded crosse one ouer another lattise wise. The Cuttle laieth also vpon the dry land among the reeds, or els wherefoeuer she can find any sea-weeds or reits to grow, & by the 15 day hatcheth. The Calamaries lay eggs in the deep, which hang close and thick together, as the Cuttles do. The Purples, Burrets, and such like, do lay in the Spring. The sea Vrchins are with egge euery full moone in the winter time: and the winkles or cocles are bred in the winter likewise. The Crampfish is found to haue 80 young at once within her, and hatcheth her tender and soft eggs within her bodie, shifting them from one place of the wombe to another. In like manner do all they which are called Cartilagineus, or gristly. By which it commeth to passe, that fish alone both conceiue with egge, and yet bring forth a liuing creature. The male sheath-fish or riuier-whale Silurus, of al others only is so kind, as to keep and looke to the eggs of the female after they be laid, many times for fifty daies after, for feare they should be deuoured of others. Other females hatch in three daies, if the male touch them. The Horne-beaks or Needle-fishes Belonæ, are the only fishes which haue within them so great eggs that their wombe cleaueth and openeth when they should lay them: but after that they be discharged of them, it groweth together and vniteth againe. A thing vsuall (as they say) in Blind-wormes. The fish called Mus-Marinus, diggeth a gutter or ditch within the ground, and there laieth her eggs, and the same she couereth ouer with earth, and so lets them alone for 30 daies, then she commeth and openeth the place again, findeth her eggs hatched, and leadeeth her little ones to the water.

CHAP. LII.

¶ Of fishes wombes.

The shel-fishes Erythini & Chanæ, haue their wombs or matrices. As for that fish which in Greeke is called Trochos [i. the top] is thought to get it selfe with yong. The frie of all water creatures, at the first see not.

CHAP. LIII.

Of the exceeding long life of fishes.

It is not long since that we heard of one fishes memorable example, which proued the long life of fishes. There is a faire house of retreat and pleasure called Pausilipum, in Campaine not far from Naples; where (as *Anneus Seneca* writeth) there died a fish in the fish-pooles of *Cesar*, 60 yeres after that it had bin put in by *Pollio Vedius*: and there remained two more of that age and of the same kind, which liued still. And since wee are come to make mention of fish-ponds, me thinks I should do well to write somewhat more thereof, before I giue ouer this discourse of fishes and water creatures.

CHAP. LIV.

¶ Of oyster pits, and who first deuised them.

The first that inuented stewes and pits to keep oysters in, was *Sergius Orata*, who made such about his house in Baianum, in the daies of *L. Crassus* that famous orator, before the Mar- sians war. And this the man did not for his belly and to maintain gourmandise, but of a couetous mind for very gain. And by this and such wittie deuises, he gathered great reuenues: for he it was that inuented the hanging baines and pooles to bathe in aloft vpon the top of an house: and thus when he had set out his manour house for the better sale, he would make good merchandise of them, and sell them againe for commoditie and gaine. He was the first man that brought the Lucrine Oysters into name and credit for their excellent taste. For so it is, that

A that the same kinds of fishes, in one place are better than in another. As the Pikes in the riuier Tiberis, which are taken between the two bridges: the Turbot of Rauenna: the Lamprey in Sicilie: the Elops at Rhodes, and so forth of other sorts of fishes: for I do not meane here to make a bill of all the dainty fish to serue the kitchin. There was no talk then of English oysters, when *Orata* brought those of the Lucrine lake into request, for as yet the Brittiish coasts were not ours; which indeed haue the best oysters of all other. But afterwards it was thought it would quit the cost and pay for the pains, to fetch oysters from the furthest part of Italy, euen as far as Brundisium. And because there should grow no quarrell, nor controuersie arise, whether these or the former had the more delicate and pleasant taste, it was of late deuised that the hungrie oysters (which in the long cariage from Brundise were almost famished) should be fed with the rest in the Lucrine Lake, and so taste alike. In those very daies, but somewhat before *Orata*, *Licinus Murena* deuised pools and stews for to keep and feed other fishes: whose example noblemen followed and did the like after them; namely, *Philip* and *Hortensius*. *Lucullus* cut through a mountain neere vnto Naples for this purpose, namely, to let in an arm of the sea into his fish pooles: the doing whereof cost him more money, than the house it selfe which he there had built. Hereupon *Pompey* the great gaue him the name of Roman *Xerxes*, in his long robe. The fishes of that poole of his, after his death, were sold for thirty hundred thousand Sesterces, i. three milions of Sesterces.

CHAP. LV.

¶ Who inuented the stewes for Lampreys.

Caius *Hirtius* was the man by himselfe, that before all others deuised a pond to keep Lampreys in. He it was that lent *Cesar* Dictator for to furnish his feasts and great suppers during the time of his triumph, 600 Lampreys, to be paid againe by weight and tale in the same kind: for sel them he would not right out for any mony, nor exchange them for other commodities. A house he had for his pleasure in the country, and but a very little one, yet the ponds and fishes about it sold the house for foure milions of Sesterces. In proceesse of time folk grew to haue a loue and cast a fancy to some one feuerall fish about the rest. For the excellent Orator *Hortensius* had an house at Bauli, vpon the side that lieth to Baia, & a fish-pond to it belonging: and he took such an affection to one Lamprey in that poole, that when it was dead (by report) he could not hold but weep for loue of it. Within the same poole belonging to the said house, *Antonia* the wife of *Drusus* (vnto whom they fell by inheritance) had so great a liking to another Lamprey, that she could find in heart to decke it, and to hang a paire of golden earrings about the guils thereof. And surely for the nouelty of this strange sight, and the name that went thereof, many folke had a desire to see Bauli, and for nothing els.

CHAP. LVI.

¶ The stewes of Winkles, and who first was the deuiser.

Elvius *Hirpinus* was the first inuentor of warrens as it were for Winkles, which he caused to be made within the territory of *Tarquini*, a little before the ciuil war with *Pompey* the great. And those had their distinct partitions, for sundry sorts of them: that the white, which came from the parts about Reate, should be kept apart by themselves: the Illyrian (and those were chiefe for greatnesse) alone by their selues: the Africans (which were most fruitfull) in one feuerall: and the Solitanes (simply the best of all the rest) in another. Nay more than that, he had a deuise in his head to feed them far, namely, with a certain paffe made of euit & wheat meale, and many other such like: to the end forsooth, that the gluttons table might be serued plentifully with home-fed & franked great Winkles also. And in time, men grew to take such a pride and glory in this artificial feare, and namely, in striuing who should haue the biggest, that in the end one of their shels ordinarily would containe * 80 measures called Quadrants, if *M. Varro* say true, who is mine Author.

CHAP. LVII.

¶ Of Land-fishes.

Or the sea
dinell.

Theophrastus also telleth strange wonders of certain kinds of fishes, which are about Babylon, where there be many places subject to the inundations of Euphrates and other riuers, and wherein the water standeth, after that the riuers are returned within their banks: in which the fish remain in certain holes & caues. Some of them, saith he, vse to issue forth aland for food and releefe, going vpon their fins in lieu of feet, and wagging their tailles euer as they go. And if any chase them, or come to take them, they will retire back into their ditches afore-said, and there make head and stand against them. They are headed like to the * sea Frog, made H in other parts as Gudgeons, and guilled in manner of other fishes. Moreouer, that about Hera-clea and Cromna, and namely neere the riuier Lycus, & in many other quarters of the kingdom of Pontus, there is one kind about the rest that euer haunteth riuers sides, and the vtmost edges of the water: making her selfe holes vnder the banks, and within the land wherein she liueth, yea, euen when the banks are drie, and the riuers gathered into narrow channels. By reason whereof they are digged forth of the earth: and as they say that find them, alieue they be, as may appeare by mouing and stirring of their bodies. Neere vnto the abouesaid Heraclia & the riuier Lycus, when it is false and the water ebbe, there be fishes breed of the egges and spawne left vpon the mud and sand, who in seeking for their food, do stir and pant with their little guils: which they vse to do when they want no water, but euen then when as the riuier is full. Which is the reason I also that yeeles liue a long time after they be taken forth of the water. He affirmeth moreouer, that the eggs of fishes lying vpon the dry land, will come to their maturity and perfection, and namely those of the Tortoises. Also, that in the same country of Pontus, there be taken fishes vpon the yce, and gudgeons especially, which shew not that they be alieue, but by their stirring and leaping when they come to be foddren in hot caudrons. Hereof may some reason yet be rendered, although the thing be strange and wonderful. The same author auoucheth, that in Paphlagonia there be digged out of the ground certaine land fishes that be excellent good meat, and most delicate: but they be found in dry places remote from the riuier, & whither no waters flow, wherby they are forced to make the deeper trenches for to come by them. Himself maruelleth K how they should engender without the help of moisture. Howbeit, hee supposeth that there is a certain minerall and naturall force therein, such as we see to sweat out in pits, forasmuch as diuers of them haue fishes found within them. Whatsoeuer it is, surely lesse wonderfull this is, considering how the Moldwarps liue (a creature naturally keeping vnder the ground) vnlesse haply we would say that fishes were of the same nature that earth wormes be of.

CHAP. LVIII.

¶ Of the mice of Nilus:

But the inundation of Nilus cleareth all these matters: the overflowing whereof is so admirable, and so far passeth all other wonders, that we may well beleue these things. For when as this riuier falleth and returneth againe into his channell, a man may find vpon the mud beyond Mice halfe made, proceeding from the generatiue vertue of water and earth together: having one part of their body liuing already, but the rest as yet mishapen, and no better than the very earth.

CHAP. LIX.

¶ Of the fish Anthias, and how he is taken.

I thinke it not meet to conceale that, which I perceiue many do beleue & hold, as touching the fish Anthias. We haue in our Cosmographie made mention of the Isles Cheltonia in Asia, situate in a sea full of rocks vnder the promontory of Taurus; among which are found great store of these fishes: and much fishing there is for them, but they are suddenly taken, and euer after one sort. For when the time serueth, there goeth forth a fisher in a smal boat or barge for certain daies together, a pretty way into the sea, clad alwaies in apparel of one and the same colour, at one houre, and to the same place stil, where he casteth forth a bait for the fish: but the fish

A fish Anthias is so craftie and warie, that whatsoeuer is thrown forth, he suspecteth it euermore, that it is a means to surprize him. He feareth therefore and distrusteth: and as he feareth, so is he as warie: vntill at length, after much practise & often vsing this deuise of flinging meat into one place, one about the rest groweth so hardy and bold, as to bite at it, for now by this time he is grown acquainted with the maner thereof, and secure. The fisher takes good mark of this one fish, making sure reckoning that he wil bring more thither, and be the means that he shall speed his hand in the end. And that is no hard matter for him to do, because for certain daies together, that fish, & none but he, dare aduenture to come alone vnto the bait. At length this hardy captaine meets with some other companions, and by little & little he commeth euery day better accompanied than other, vntill in the end he brings with him infinite troupes and squadrons together, so as now the eldest of them all (as crafty as they be) be so well used to know the fisher, that they will snatch meat out of his hands. Then hee espying his time, putteth forth an hook with the bait, somewhat beyond his fingers ends, flieth and seizeth vpon them more truly, then catcheth them, and speedily with a quick & nimble hand whippes them out of the water within the shadow of the ship, for feare least the rest should perceiue, & giueth them one after another to his companion within; who euer as they be snatcht vp, latcheth them in a course twillie or couering, & keeps them sure enough from struggling or squeaking, that they should not driue the rest away. The speciall thing that helpeth this game and pretty sport, is to know the captain from the rest, who brought his fellows to this feast, & to take heed in any hand that he be not twitcht vp and caught. And therefore the fisher spareth him, that he may flie and goe to some other flock for to train them to the like banquet. Thus you see the maner of fishing for these Anthias. Now it is reported moreouer, that one fisher vpon a time (of spightfull minde to do his fellow a shrewd turn) laid wait for the said captain fish, the leader of the rest (for he was very wel known from all others) and so caught him: but when the foresaid fisher espied him in the market to be sold, and knew it was he: taking himself misused & wronged, brought his action of the case against the other, and sued him for the dammage, and in the end condemned him. Mutianus saith moreouer, That the plaintife was awarded to haue for recompence, 10 pounds of the defendant. The same fishes, if they chance to see one of their fellows caught with an hook, by report, with their sharp fins which they haue vpon their backe like sawes, cut the line in two: for he that hangeth at it, will of purpose stretch it out streight, that it may be cut afunder more easily. But the Sargots haue another trick for that: for he that finds himselfe taken, fretteth the line in twaine, whereto the hooke hangeth, against a hard rocke.

CHAP. LX.

¶ Of the Sea fishes called Starres.

Over and besides all these, I see that some deep clerks and great Philosophers haue made a wonder at the Star in the sea. And verily it is no other than a very little fish, made like a star (as we see it painted.) A soft flesh it hath within: but without forth an hard brawnie skin. Men say it is so fierie hot, that whatsoeuer it toucheth in the sea, it burneth: and look what meat it receiue, it makes a hand with it, & digesteth it presently. What prooffe there is hereof, and how men should come to the knowledge and experience of thus much, I cannot readily set downe. I would thinke that rather more memorable and worthy to be recorded, whereof we haue daily experience.

CHAP. XLI.

¶ Of the Dactyli, and their wonderfull qualities.

Of the shell fish kind are the Dactyli, so called of the likenesse of mens nailles, which they resemble. The nature of this fish is to shine by themselves in the darke night, when all other light is taken away. The more moisture they haue within them, the more light they giue: inso much as they shine in mens mouths as they be chawing of them: they shine in their hands: vpon the floore on their garments, if any drops of their fattie liquor chance to fall by: so as it appeareth, that doubtlesse it is the very iuice & humor of the fish which is of that nature, which we do so wonder at in the whole body.

¶ Of the enmitie and amitie which is between fishes and other water beasts.

Such concord there is in some, and such discord in others, as is wonderfull. The Mullet and the sea-Pike hate one another, and be euer at deadly war: likewise the Congre & the Lamprey: in so much as they gnaw off one anothers taile. The Lobster is so afraid of the Polype, or Pourcuttell, that if he spie him neere, he euermore dieth for very woe. The Lobsters are ready to scratch and teare the * Congre: the Congre againe do as much for the Polype. *Nigidius* writeth, That the sea-Pike biteth off the Mullet's taile: and yet the same fishes in certaine set moneths are good friends, and agree well enough. He saith moreover, that those Mulletts liue all, notwithstanding their tails be so cutt off. On the other side, there be examples of friendship among fishes, besides those, of whose societie and fellowship I haue already written: and namely, between the great whale Balæna, and the little Musculus. For whereas the Whale aforesaid hath no vse of his eies (by reason of the heauy weight of his eie-browes that couer them) the other swimmeth before him, serueth him in stead of eies and lights, to shew when he is neere the shelues and shallowes, wherein he may be soone grounded, so big and huge he is. Thus much of fish. Hence forward will we write of Foules.

* Locuste Congre in Asia.
In the 2. of his 2. book.
as in the 11.



THE TENTH BOOKE OF THE HISTORIE OF NATURE, WRITTEN BY C. PLINIUS SECVNDVS.

¶ The nature of Birds and Foules.



T followeth now that we should discourse of the nature of Foules. And first to begin with Ostriches. They are the greatest of all other foules, and in manner of the nature of foure footed beasts: (namely, those in Africke and Æthiopia) for higher they be than a man sitting on horsebacke is from the ground: and as they be taller than the man, so are they swifter on foot than the very horse: for to this end only hath Nature giuen them wings, euen to help and set them forward in their running: for otherwise, neither flie they in the aire, ne yet so much as rise & mount from the ground. Clouen houfs they haue like red deere, and with them they fight; for good they be to catch vp stones withall, & with their legs they whurle them back as they run away, against those that chafe them. A wonder this is in their nature, that whatsoeuer they eat (and great deuourers they be of all things, without difference and choise) they concoct and digest it. But the veriest foolles they be of all others. For as high as the rest of their body is, yet if they thrust their head and necke once into any shrub or bush, and get it hidden, they thinke then they are safe enough, and that no man seeth them. Now two things they doe afford, in recompence of mens pains that they take in hunting and chasing them: to wit, their eggs, which are so big, that some vse them for vessels in the house: and their feathers so faire, that they serue for pennaches to adorne and set out their crests and morions of fouldiers in the wars.

CHAP.

¶ Of the Phoenix.

The birds of Æthiopia and India, are for the most part of diuerse colours, and such as a man is hardly able to decipher and describe. But the Phoenix of Arabia passeth all others. Howbeit, I cannot tell what to make of him: and first of all, whether it be a tale or no, that that there is neuer but one of them in all the world, & the same not commonly seen. By report he is as big as an Ægle: for colour, as yellow and bright as gold, (namely all about the necke;) the rest of the bodie a deep red purple: the taile azure blew, intermingled with feathers among of rose carnation color: and the head brauely adorned with a crest and penach finely wrought; hauing a tuft and plume thereupon, right faire and goodly to be seen. *Manilius*, the noble Roman Senator, right excellently scene in the best kind of learning and litterature, and yet neuer taught by any, was the first man of the long Robe, who wrot of this bird at large, & most exquisitely. He reporteth, that neuer man was known to see him feeding: that in Arabia he is held a sacred bird, dedicated vnto the Sun: that he liueth 660 yeares: and when he groweth old, and begins to decay, he builds himselfe with the twigs and branches of the Canell or Cinamon, and Frankincense trees: and when he hath filled it with all sort of sweet Aromaticall spices, yeeldeth vp his life thereupon. He saith moreover, that of his bones and marrow there breeds at first as it were a little worme: which afterwards prooueth to be a prettie bird. And the first thing that this yong new Phoenix doth, is to perform the obsequies of the former Phoenix late deceased: to translate and carry away his whole nest into the citie of the Sun neere Panchæa, and to bestow it full deuoutly there vpon the altar. The same *Manilius* affirmeth, that the reuolution of the great yeare so much spoken of, agreeth just with the life of this bird: in which yeare the stars returne againe to their first points, and giue significations of times and seasons, as at the beginning and withall, that this yeare should begin at high noone that very day when the Sun entreteth the signe *Aries*. And by his saying, the yeare of that reuolution was by him shewed, when *P. Licinius* and *M. Cornelius* were consuls, *Cornelius Valerianus* writeth, That whiles *Q. Plautius* and *Sex. Papinius* were Consuls, the Phoenix flew into Ægypt. Brought he was hither also to Rome in the time that *Claudius Caesar* was Censor, to wit, in the eight hundred yeare from the foundation of Rome: and shewed openly to be seen in a full hall and generall assembly of the people, as appeareth vpon the publick records: howbeit, no man euer made any doubt, but he was a counterfeit Phoenix, and no better.

¶ Of Ægles.

Ofall the birds which we know, the Ægles carie the price both for honor & strength. Six kinds there be of them. The first named of the Greeks * *Melænaetos*, and in Latin, *Valeria*: the least it is of all others, and strongest withall, blacke also of colour: In all the whole race of the Ægles, she alone nourisheth her yong birds: for the rest (as we shall hereafter declare) doe beat them away: she only crieth not, nor keepeth a grumbling and huzzing as others doe: and euermore converseth vpon the mountaines. Of the second sort is * *Pygæus*. It keepes about townes and plaines, and hath a whitish taile. The third is *Morphnos*, which *Homer* calls also *Pernor*: some name it *Plancus* and * *Anataria*: and she is for bignesse and strength, of a second degree: louing to liue about lakes and meeres. Ladie *Phæmona*, who was supposed & said to be the daughter of *Apollo*, hath reported, that this Ægle is toothed: otherwise mute, as not hauing any tongue: also, that of all other she is the blackest, and hath the longest tail. With her accordeth *Æolus* likewise. Subtle she is and wittie: for when she hath seized vpon Tortoises and caught them vp with her talions, she throweth them downe from aloft to breake their shells. And it was the fortune of the Poet *Æschylus* to die by such a meanes. For when he was foretold by wizards out of their learning, that it was his destinie to die on such a day by some thing falling on his head: he thinking to preuent that, got him forth that day into a great open plain, far from house or tree, presuming vpon the securitie of the cleare and open skie. Howbeit, an Ægle let fall a Tortoise, which light on his head, dashed out his braines, and laid him asleepe for euer.

* The Saker
some thinke.

* A kinde of
Faulcon.

For killing of
Duckes and
Mallards.

OF

Some take it
for the Ospray

• The pretious
Song Ecsties.

272

“The moun-
taine Storke.

Some take it
for the Ospray

• The pretious
Song Ecsties.

H

r M

Plinies Natural History?

A their prey. And were it not so, certainly one aire of Eagles needs the reach of a whole country to furnish them with venison sufficient to their full. They haue therefore their seuerall coasts and walks, and without those limits and vsuall haunts they rauē not. When they haue seiſed of any prey, they carry it not away presently, but first lay it downe, peruse and peise the weight of it, and then away they fly therewith amaine, but not before. They die not for age, nor vpon any sicknesse, but of very famine, by reason that the vpper beake of their bil is so far ouergrown and turns inward so much, that they are not able to open it to feed themselves. Their manner is ordinarily to go to their busines (namely to fly and seek their prey) after noon : for all the forenoon they are perched vp, doing nothing, waiting the time when men be not stirring abroad, but about their markets within the cities and townes, or otherwise busie in their ciuill affaires. The quils or feathers of Eagles laid among those of other fowles, will deuour & consume them: Men say, that of all flying Fowle the Eagle onely is not smitten nor killed with lightning: whereupon folke are wont to say, that shee serues *Iupiter* in place of his squire or armor-bearer.

CHAP. IV.

¶ *When Eagles began to be the Ensignes and standards of the Roman legions : and what fowles they be that war with Eagles.*

Caius Marius in his second Consulship ordained, that the legions of Romane soldiers only should haue the Eagle for their standard, and no other ensigne: for before-time the Eagle marched formost indeed, but in a ranke of foure others, to wit, of * Wolues, Minotaures, Horses, and Bores, which were borne each one before their own seuerall squadrons and companies. Not many yeares past, the standard of the Eagle alone began to be advanced into the field to battell, and the rest of the ensignes were left behind in the campe: but Marius reiected them altogether, and had no vse of them at all. And euer since this is obserued ordinarily, that there was no standing campe or leaguer wintered at any time without a paire of Eagle standards.

Of Egles, the first and second kind prey not only vpon the lesse foure footed beaſts, but alſo maintain battell with the red Deere, euen the ſtag and the hind. The maner of the Eagle is, after ſhe hath wallowed in the duſt, and gathered a deale thereof among her feathers, to ſettle vpon the horns of the Deere aforeſaid, to ſhake the ſame off into his eies, to flap and beat him about the face with his wings, vntill ſhe driue him among the rocks, and there force him to fall down from thence headlong, and ſo to breake his neck. Moreover, the Eagle hath not enough of this one enemy, but the muſt war with the dragon alſo; howbeit the fight betwene them is more ſharp and eager, yea, and putteth her to much more danger, albeit otherwhiles they comba in the aire. The Dragon of a naturall ſpight and greedy deſire to do miſchiefe to the Eagle, watcheth euermore where the airie is, for to deſtroy the eggs, and ſo the race of the Egles. The Eagle again whereſoeuer ſhe can ſet an eye vpon him, catcheth him vp and carrieth him away; but the ſerpent with his taile windeth about his wings, and ſo intangleth and tieth them faſt, that downe they fall both of them together.

CHAP. V.

¶ A strange and wonderfull accident of an Eagle.

THere hapned a maruellous example about the city Seftos, of an Egle: for which in those parts there goes a great name of an Egle, and highly is she honored there. A yong maid had brought vp a yong Egle by hand: the Egle again to requite her kindnes, would first when shee was but little, flie abroad a birding, and euer bring part of that shee had gotten vnto her said nurse. In proceffe of time, being grown bigger and stronger, would set vpon wild beasts also in the forrest, and furnish her yong mistresse continually with store of venison. At length it fortuned that the damosell died: and when her funerall fire was set a burning, the Egle flew into the mids of it, and there was consumed into ashes with the corps of the said virgin. For which cause and in memoriall thereof, the inhabitants of Seftos and the parts there adioyning, erected in that very place a stately monument, such as they call Heroum, dedicated in the name of *Iupiter* and the virgin, for that the Egle is a bird consecrated vnto that god.

THe blacke Vultures are the best of that kind. No man euer could meet with their nests : whereupon some haue thought, but vntruily, that they fly vnto vs out of another world, euen from the Antipodes, who are opposite vnto vs. But the very truth is, they build in the highest rocks they can find, and their yong ones haue many times bin seene, two together, and no more. *Vmbrius*, who was counted the most skilfull Aruspex of our age, saith, they vsually lay three eggs, whereof they take one to sacre and blesse (as it were) the other eggs and the nest, and then soon after they cast it away. Also that the maner of the Geires is to foresee a carnage, and to fly two or three daies before vnto the place where there wil be any carions or dead carkasses.

AS touching the Sangualis and the Immussulus, our Augurs at Rome are in a great doubt and make much question, what they should be. Some are of opinion, that the Immussulus is the chicke of the Vulture; and the Sangualis likewise the yong Ossifraga. *Massurius* saith, that the Sangualis and Ossifraga be both one: and as for the Immussulus, it is the yong bird of the Eagle before it come to haue a white taile. Some haue affirmed confidently, that after the death of *Mutius* the Augure there was neuer any of them seen at Rome. But I rather am of this mind (and me thinkes it sounds more like a truth) such is the supine negligence and carelesnesse of men in all things else, that no maruell it is if they know them not although they see them.

WE find in Faulconrie 16 kinds of Hawks or Fowles that prey. Of which the *Circos* (which is lame and limpeth of one leg) was held in antient time for the luckiest Augurie in case of weddings and of cattrell. Also the Hawke called *Triorches* (of three bones or cullions that it hath) is reputed a bird of good presage: and in Augurie, lady *Phemonoe* hath giuen vnto it the honor of the best simply and most fortunate. The Romans call it *Buteo*, i. a Buzzard; and there is a worshipfull house and family in Rome of that syname, by occasion that a Buzzard setled and perched himselfe vpon the Admirall ship where *Fabius* himselfe, one of that house, was, presaging a boone-voyage and happy successe, according as it fell out indeed. As for the Hawk which the Greeks name *Aesalo*, i. the Merlin, she alone is euer seen at all times of the yeare, whereas the rest are gon when winter commeth. In generall, Hawkes are diuided into sundry and distinct kinds, by their greedinesse more or lesse, and their manner in chase and preying: for some there be that neuer seise on a foule but vpon the ground: others againe neuer assaile any birds, but when they spy them flying about some tree. There be also, that take a bird perching and sitting on high: and ye shal haue of them that ouertake them as they fly in the wide and open aire. The doves therefore and pigeons, knowing the danger of flying aloft, so soon as they espy them, either light vpon the ground and fettle, or else fly neere the earth, and thus help themselves by taking a contrarie course to the Hawks nature, to auoid their talons. There is in the ocean of Africke an Island called *Cerne*, wherem all the hawks of the coasts of the *Maffesylis* build vpon the very ground, and there breed, and be so accustomed to those countries, you shall not find an aire of them elsewhere. In a part of Thrace, somewhat higher in the country beyond *Amphipolis*, men and hawks ioyn in fellowship and catch birds together; for the men drine the woods, beat the bushes and reeds to spring the fowle; then the hawks flying ouer their heads, seise vpon them, and either strike or beat them to the ground fit for their hands. On the other side, the hawkers and fowlers when they haue caught the Fowle, diuide the booty with the hawks; and by report they let such birds fly againe at libertie aloft into

A into the aire, and then are the hawkes ready to catch them for themselves. Moreouer, when the time is of hawking, they will by their manner of crie and flying together, giue signe to the faulconers that there is good game abroad, and to draw them forth to hawking for to take the opportunity. It is said, that the wolues doe the like, about the lake *Moerotis*: for vnlesse they may haue their part with the fishers, they will rend and teare their nets, when they find them stretched forth. Faulcons or Hawkes willingly eat not the heart of any bird. There is an hawke called *Cymindis*, which preyeth in the night: seldome is the scene in the woods, and by day-light seeth little or nothing. There is deadly war between it and the *Eagle*; and oftentimes they be both taken, entangled one with another.

AS touching the Cuckow, it seemes that he comes of some hawke changed into his shape at one certaine time of the yeare: for then those other hawkes are not to be seene, vnlesse some very few daies. He sheweth himselfe also but for a small season in summer time, and afterwards appeareth no more. It is the only hawke that hath no talons hooked downward, neither is he headed as other hawkes, nor like vnto them, but in colour: and for bill, he resembleth rather the dove. Nay more than that, the hawke will prey vpon him and deuoure him, if haply they be seen both together: and it is the only bird of all other that is killed by those of the owne kind. He altereth his voice also. In the spring, he commeth abroad, and by the beginning of the dog-daies, hides himselfe. These lay alwaies in other birds nests, and most of all in the Stock-doues, commonly one egge and no more (which no other bird doth besides) and seldom twain. The reason why they would haue other birds to sit vpon their eggs and hatch them, is because they know how all birds hate them: for euen the very little birds are readie to war with them: for feare therefore that the whole race of them should be vtterly be destroyed by the furie of others of the same kind, they make no nest of their owne (being otherwise timorous and fearefull naturally of themselves) and so are forced by this craftie shift to auoid the danger. The Tittling therefore that sitteth, being thus deceived, hatcheth the egge & bringeth vp the chick of another bird. And this yong Cuckow being greedy by kind, beguiling the other yong birds and intercepting the meat from them, groweth hereby fat and faire-looking: whereby it comes into speciall grace and fauour with the dam of the rest, and nource to it. She ioieth to see so goodly a bird toward: and wonders at her selfe that she hath hatched & reared so trim a chick. Thereft, which are her owne indeed, she sets no store by, as if they were changelings: but in regard of that one, counteth them all bastards and misbegotten: yea, and suffereth them to be eaten and deuoured of the other euen before her face: and this she doth so long, vntill the yong cuckow being once fledge & readie to flie abroad, is so bold as to seize on the old Tittling and to eat her vp that hatched her. And by that time there is not another bird againe for goodnesse and sweetnesse of meat, comparable to the yong Cuckow.

THe Kites or Gledes are of the same kind of Hawkes or birds of prey, only they be greater. This hath been noted & obserued in them: that being a most rauinous bird, & euer more hungrie, yet were they neuer knowne to snatch any viands ordained at funerall feasts for the dead, out of the platters; ne yet the flesh of beasts slaine in sacrifice, from off the altar of *Jupiter* in Olympia. Nay, it was neuer seen that a Puttocke would catch flesh out of their hands that serued at such feasts: but if it did, a great presage it was of some dolefull & heauie misfortune which should fall vpon the whole town, that made these solemne sacrifices. These Gledes or Puttocks, seem by the winding and turning of their tails to & fro as they flie, to haue taught pilots the skill of steering, and vse of the helme. See how Nature hath shewed that in the aire above, which is so necessary in the deep sea beneath! Kites likewise are not often seen abroad in the dead time of winter: yet go they not away for altogether before the Swallows. Moreouer, it is said, that after the Sunsets, alway in summer, they be troubled with the gout in their feet.

stay and keep within the camp. These were they that gave the signall, and foretold the issue of all those famous foughten fields, whereby we have achieved all our victories throughout the whole world: and in one word, these birds command those great Commanders of all nations upon the earth, as acceptable to the gods in sacrifice with their small fibres & filaments of their inwards, as the greatest and fattest oxen that are killed for sacrifice. Moreover, their crowing inwards, as the greatest and fattest oxen that are killed for sacrifice. Moreover, their crowing out of order, too soon before their hour, or too late, and namely in the evening, portendeth also and presageth somewhat by it selfe. For well known it is, that by their crowing at one time all night long, they fore-signified to the Boeotians that noble victory of theirs achieved over the Lacedaemonians. For this interpretation and conjecture was given thereupon of a fortunate day, because that bird never croweth if he be beaten or overcome. If they be once carued and made capons they crow no more. And this feat is practised upon them two manner of wayes; namely, either by burning their loines toward their kidneys with a red hot yron, or else by cauterizing their legs beneath, and their spurs, and then presently applying a plaister unto the ulcerate and blistered place, made of potters white clay or chalky earth: and being thus served they will sooner feed and be fat. At Pergamus every yeare there is a solemne shew exhibited openly to the people, of Cocke-fighting, as if sword-fencers were brought within the lists to fight at utterance. We finde in record among our Annales, that within the territorie of Ariminum, in that yeare when *Marcus Lepidus* and *Quintus Catulus* were Consuls, there was a dunghill cocke did speake: and it was about a ferme-house in the countrey belonging to one *Galerius*. But this hapned neuer but once, for ought that I could ever heare or learne.

CHAP. XXII.

¶ Of Geese, and who first eat the Goose liver. Also of the lease of a Goose of Comagena.

THE Goose likewise is very vigilant and watchfull: witnesse the Capitoll of Rome, which by the meanes of Geese was defended and saved: whereas at the same time, through the default of dogs (which should have given warning) all had like to have bin lost. Wherefore the first thing that the Centors do by vertue of their office, is to take order for the Geese of the Capitoll, and to appoint some one man of purpose to see unto them that they have meate enough. Moreover, they are said to be given much to love: for at Argos there was a Goose that was wonderously enamoured of a faire boy named *Olenus*: as also of a damosel whose name was *Glauce*, who vsed to play on the lute before king *Proteus*: and by report at the same time a Ram made court unto the said wench, and was in love with her. It may be credibly thought also, that this creature hath some sparks (as it were) of reason, vnderstanding, and learning, for *Lycydes* the Philosopher had one of them about him, which would neuer leaue him night nor day, neither in the open street abroad, nor in priuat house at home; but would follow him euen to his close and secret baines where he vsed to bathe. But our countrymen and citifens of Rome (I beleue me) are wiser now adaies, who know, forsooth, how to make a dainty dish of their Liver. For in those Geese that are kept vp and cram'd fat in coup, the liver grows to be exceeding great; and when it is taken forth of the belly, it waxeth bigger still, if it be steeped in milk and sweet mede together. Good cause therefore it is, that there be some question and controuersie about the first inuentor of this great good and singular commoditie to mankind: whether it were *Serpio Metellus*, a man who lately was called to be Consul: or *M. Sestius*, who in those daies was by his birth a gentleman of Rome. But to leaue that stil vndecided, this is certainly known that *Messallinus Cotta*, son to that *Messala* the Orator, found out the secret to broile & fry the flat broad feet of Geese, and together with cocks combs, to make a sauiory dish of meat thereof between two platters. For surely I for my part will giue euery man his due and right, and will not defraud them of their singular praise and honour who have bin benefactors to the kitchen, and proceeded masters in cookerie. A marvellous thing of these birds, that a flock of them should come all the way bare foot, from * Terwin and Torney in France, as far as to Rome. Their order was who had the conduct of them in this large voyage, to bring those forward that were weary and lagged behind, into the vaward & forefront: and so the rest by a certain thick vnited Squadron (which naturally they make going together) driue the others before them. A second

commo-

A commoditie that Geese yeeld, (especially those that be white) is their plume and downe. For in some places their soft feathers are pluckt twice a yeare: and yet they cary feathers again, and be as well couered with plume as before: and euermore the neerer to the skin and flesh, the softer is the downe. But of all other, the finest and best is that which is brought out of Germanie. The Geese there, be all white; but lesse of bodie than from other parts: and there they be called *Ganzae*. And truly, a pound of such feathers be worth * 5 deniers. Hereupon it is, that so many complaints are made of Colonels and Capitaines ouer companies of auxilliary fouldiers for their disorders. For whereas they should keep them together in a standing *corps de gard*, to watch and ward night and day: they license many times whole bands to straggle abroad, to hunt and chase Geese for their feathers and downe. And now forsooth the world is growne to be so delicate and daintie, that not only our fine smooth dames, but also our men, cannot take their repose and sleep without this ware, but complaine of a paine in their necks and heads, vnlesse they may lay them upon bolsters and pillowes of goose feathers, and their soft downe.

Now, to that part of Syria called Comagena, we are beholden for another proper inuention of theirs. They take me the lease and greafe of Geese and Cinnamon together, which they put into a brazen pot, and couer it all ouer with good store of snow, wherein they let it lie in steepe, well infused in this cold humor, to vse in that notable composition and sweet ointment, which of that countrey is called Comagenum.

Of the Geese kind are the Birganders named *Chelanopeces*: and (than which there is not a daintier dish knowne in England) the *Chenerotes*, lesse than wild Geese.

C As for the pheasant Bustards, they haue a trim shining brightnesse that becommeth and graceeth them exceeding well in their perfect and absolute black hew: and their eie-browes painted red as it were with deep Scarlet.

Another kind there is of them, bigger than Vultures, but in feather and colour much resembling them. And there is not a Foule (setting the Ostrich aside) that poiseth & weigheth more heauy than they: for they grow to that bignes, that a man can hardly lift them from the ground. These breed in the Alpes and the North countries. If they be mued vp and kept in a pen, they lose their pleasant taste, and are no good meat: nay, they grow so fullen and self-willed, that they will die with holding their breath. Next to these are those which in Spaine they call the Slow-birds, and in Greece *Otides*: but their meat is naught: for the marrow in their bones, if it be let run out, hath such a stinking smell, that a man cannot abide it, but shall be readie to vomite.

CHAP. XXIII.

¶ Of Cranes, Storkes, Swans, Quails, the Glotis, and strange birds of other countries.

THE nation of the prettie Pigmyes enjoy a truce and cessation from armes, euery yeare (as we haue said before) when the Cranes, who vse to wage war with them, be once departed & come into our countries. And verily, if a man consider well how far it is from hence to the Leuant sea, it is a mightie great journey that they take, & their flight exceeding long. They put not themselves in their journey, nor set forward without a counsell called before, and a generall consent. They flie aloft, because they would haue a better prospect to see before them: and for this purpose a captain they chuse to guide them, whom the rest follow. In the rereward behind there be certaine of them set and disposed to giue signall by their manner of crie, for to raunge orderly in rankes, and keep close together in array: and this they doe by turnes each one in his course. They maintaine a set watch all the night long, and haue their sentinels. These stand on one foot, and hold a little stone within the other, which by falling from it, if they should chance to sleepe, might awaken them, and reprove them for their negligence. Whiles these watch, all the rest sleep, couching their heads vnder their wings: and one while they rest on the one foot, and otherwhiles they shift to the other. The capitaine beareth vp his head aloft into the aire, and giueth signall to the rest what is to be done. These Cranes if they be made tame and gentle, are very playfull and wanton birds: and they will one by one dance (as it were) and run the round with their long shankes stalking full vntowardly. This is surely known, that when they mind to take a flight ouer the sea Pontus, they will fly directly at the first to the narrow streights of the sayd sea, lying between the two capes *Criu-Metophon* and *Carambis*, and then presently they

Bb 3

ballaife

ballaiffe themselves with stones in their feet, and sand in their throats, that they flie more steady and endure the wind. When they be halfe way ouer, down they fling these stones: but when they are come to the continent, the sand also they disgorge out of their craw.

Cornelius Nepos, who died in the daies of *Augustus Caesar* Emperor, in that chapter where he wrote, That a little before his time men began to feed and cram Blackbirds and Thrushes in coupes, faith moreover, That in his daies Storks were holden for a better dish at the board than Cranes. And yet see, how in our age now, no man will touch a Storke if it be set before him vpon the board: but every one is readie to reach vnto the Crane, and no dish is in more request. From whence these Storks should come, or whither they go againe, is not yet known. No doubt the difference, that the cranes are our guests in Winter, and the Storks in Summer. When they be minded to part out of our coasts, they assemble all together in one certain place appointed: there is not one left out nor absent of their owne kind, vnlesse it be some that are not at libertie, but captiue or in bondage. Thus (as if it had been published before by proclamation) they rise all in one entire companie, and away they flie. And albeit well knowne it might be afore, that they were vpon their remoue and departure, yet was there neuer any man (watched he neuer so well) that could perceiue them in their flight: neither dowe at any time see when they are coming to vs, before we know that they be already come. The reason is, because they doe the one and the other alwaies by night. And notwithstanding that they flie too and fro from place to place, and make but one flight of it, yet be they supposed neuer to haue ariued at any coast but in the night. There is a place in the open plaines and champion countrey of Asia, called *Pithon*. Come: where (by report) they assemble all together, and being met, keepe a jangling one with another: but in the end, look which of them lagged behind and came tardie, him they reare in peeces, and then they depart. This also hath been noted, that after the Ides of August they be not lightly seene there.

Some affirme constantly, that Storke haue no tongues. But so highly regarded they are for slaying of Serpents, that in Thessalie it is accounted a capitall crime to kill a Storke, and by law he is punished as a Fellow in the case of manslaughter.

After the same maner wild Geese and Swans do sort together, when they be passengers from countrey to countrey: but all these are seene when they flie. They make way forcibly in a pointed Squadron, like as it were the stem of a foist at sea, armed with a sharp beakehead (for by this meanes they breake and cut the aire better, than if they draue it before with a streight, euen, and square front.) And thus wedg-wise by little and little they spread broader and broader behind, and beare a great length besides with them: by which meanes also they gather more wind to heaue them vp and set them forward. In this their flight they rest their heads vpon the former: and ener as one that leadeah the way is wearie with bearing his head, he retires behind to ease himself vpon him that flieth next before. Storks keep one nest stil from yeare to yeare, and neuer change: and of this kind nature they are, that the yong will keep and feed their parents when they be old, as they themselves were by them nourished in the beginning.

Some say that the Swans sing lamentably a little before their death, but vntruly, I suppose: for experience in many hath shewed the contrarie. Howbeit, these foules vse to eat and deuour one another.

But since we are entred into this discourse of those foules that make voiajes by whole flocks ouer sea and land to see strange countries, I canot put off to speak of lesser birds also, which are of the like nature. For those before named may seeme in some sort to be induced to such great trauell, so bigge they are of bodie, and so strong withall. As touching Quails therefore, they alwaies come before the Cranes depart. A little bird it is, and whiles she is among vs here, mounteth not aloft in the aire, but rather flieth below neere the ground. The manner of their flying is like the former, in troupes: but not without some danger of the sailers when they approach neere to land. For oftentimes they fettle in great number on their sailes, and there perch, which they doe euermore in the night, and with their poise beare downe barks and small vessels, and finally sink them. These Quails haue their feet gifts, to wit, ordinarie resting and baiting places. When the Southwind blowes, they neuer flie: for why? it is a moist, heauy, and cloggie wind, & that they know well ynough. And yet they willingly chuse a gale whensoever they flie, by reason that their bodies are too weightie (in comparison of their wings) to beare them

- A them vp: and besides, their strength is but small. And hereupon it is, that as they flie, they seem by their manner of crie to complaine, as though they flew with paine. Commonly therefore they chuse a Northerne wind to flie with: and they haue one mighty great Quail called *Oryzometra*, to lead the way and conduct them, as their captain. The formost of them, as he approacheth neere to land, paith toll for the rest vnto the Hauke, who presently for his welcome preieth vpon him. Whensoever at any time they are vpon their remouue and departure out of these parts, they perswade other birds to beare them company: and by their inducements, there go in their train the Glottis, * *Otis*, and the *Cychnamus*. As for the Glottis, he putteth forth a long tongue, whereupon he hath that name. This bird is very forward at the first setting out (as being desirous to be a traueler, to see far countries, and to change the aire:) and the first daies journey he vndertaketh with pleasure: but soone finding the tediousnesse and paines in flying, he repents that euer he enterprised the voiage. To go backe again without company, hee is ashamed: and to come lag behind he is as loth: howbeit, for that day he holdeth out so so, and neuer goeth farther; for at the next resting place that they come vnto, hee faire leaueth the company and staeth there, where lightly he meeteth with such another as himselfe, who the yere before was left behind. And thus they do from time to time, yere by yere. As for the *Cychnamus*, he is more staid and resolute to indure the trauel: he maketh hast and hath an earnest longing to come into those parts which he so much desires: & therefore in the night season he is as good as a trumpet to awake the rest, & put them in mind of their iourney. The *Otis* is a bird lesse than the Like-Owl, bigger than the Howlet, hauing two plumed ears standing vp aloft, whereupon he took that name *Otis* in Greek. But in Latine some haue called him *Asio*. This bird besides hath certain qualities by her self, & is skilful to counterfeit and make gestures like a flattering parasite: she can foot it, turn and trip, mount and capre, as if she were a professed dauncer: easie she is to be taken like as the Howlet, for whiles she is amused and looking wistly vpon one that goeth about her, another commeth behind and soon catcheth her. But to return to our Quails aforesaid. If a contrarie wind should chance to arise and begin to driue against them, and hinder their flight: to preuent this inconuenience, they be well provided. For they flie well ballaisted either with small weightie stones within their feet, or els with sand stuffed in their craw: the seed or grain of the white Elebore (a very poison) they loue passing wel, & it is their best meat.
- D, But hereupon it is, that they are not serued vp as a dish to the table. Moreover, they are wont to some and flauer at the mouth, by reason of the falling sicknesse, vnto which they only of all other creatures, but man again, are subiect.

* The Bistard
or Horn-owle

CHAP. XXIV.

Of Swallows, Oufles, or *Aerles*, Thrushes, Stares or *Sterlings*, Turkeys, and Stockedones.

THE Swallows likewise (the birds alone of all those that haue not crooked claws, which feed vpon flesh) are gone from vs all Winter time. Howbeit, they depart not far off, but seeke only the Sun-shine noukes, betwene hills neere at hand, and follow the warmth. Where many times they are found naked, and without feathers altogether, as if they had moulted. It is said, that they will neuer build their nests vnder any house in Thebes: because that city had bin many times forced and taken by the enemy. Neither in Bizia, a city of Thrace, by reason of the detestable parts practised by *Tereus* there. *Cecina* of Volaterra, a Gentleman of Rome by calling (gouernour and master of the coaches and coach-horses that vsed to runne for the prize and best game) was wont to bring with him into the city, a number of these Swallows, which he had gotten in diuers places where he came, out of his friends houses wherein they were bred. And when the horses which hee had in charge obtained at any time victorie in the race, hee would take the birds, and paint them with that colour which betokened victorie, and so with that liuerie (as it were) let them flie to his friends, for to carry tidings vnto them of the good successe which hee had obtained: knowing right well, that every one would home to the same nest from whence they came. And thus in small space could hee enforme his comforts and well-willers of his good speed. Also *Fabius Pictor* reporteth in his Annales, That when a fort (which the Roman garrison held) was besieged by the Ligustines, there was a shee Swallow newly taken out of her nest within that fort, from her little ones as shee sat ouer them, and brought

brought to him with this watchword, That by a linnen thred tied to her foot in stead of a letter, he should aduertise them within the fort, by so many knots tied in the said thred, as there would daies passe before aid could come from him vnto them, to the end that they also might be ready vpon that day to fallie forth.

Oufles, Throftles, Blackbirds, and Stares, after the same manner depart aside from vs, but go not far. Howbeit, these cast not their feathers, nor lie altogether hidden: but are seen oftentimes in places, from whence they fetch meat to serue them in the Winter. And therefore it is, that Blackbirds are common in Germany, and specially in Winter time.

The Turtle more properly and truly is said to hide her self, and to shed her plume & moult. Stockdoves likewise depart from vs, but whether they go no man knoweth.

As touching Sterlings, it is the property of the whole kind of them to flie by troupes, and in their flight to gather round into a ring or bal, whiles euery one of them hath a desire to be in the midst.

Of all birds, the Swallow alone flieth bias, and windeth in and out in his flight: he is most swift of wing, and flieth with ease: and therefore not so ready to be surpris'd and taken by other birds. To conclude, he neuer feedeth but flying, and so doth no other bird besides.

CHAP. XXV.

¶ *What birds continue with vs all the yeare long: which be halfe yeares birds, and which be but for three moneths.*

Great difference there is in the seasons and times of birds. Some abide the whole yeare, as house-doves: others halfe the yeare, as Swallows: and some again but a quarter, as blackbirds and Turtle-doves. And there be againe that are gone so soone as they haue hatched and trained their young abroad into the open aire. Such be the Hu-holes, and Houpees [or Lapwings as some thinke.]

CHAP. XXVI.

¶ *Strange stories of birds.*

Writers there be who affirme, That euery yeare certain birds come flying out of Ethiopia to Ilium, and there, about the tombe or sepulchre of Memnon, skirmish and fight a battell. For which cause men call them Memnonides. And Cremutius auoucheth vpon his owne knowledge, That euery fifth yere the same birds do the like in Aethyopia, euen before the roiall palace sometime of the said king Memnon.

Semblably, the birds named Maleagrides, do fight a field in Boeotia. Now are these Maleagrides a kind of Turkey-cocks, and hens of Africk, hauing a bunch on their back, and bespotted with feathers of sundry colours. Of all strange birds, comming out of forreine parts, these are last receiued and admitted to serue the table, by reason of a certain harsh and vnpleasant strong taste that they haue. But it is the monument and tombe of Melaeager which hath given them that name and credit which they haue.

CHAP. XXVII.

¶ *Of birds surnamed Seleucides.*

The birds called Seleucides, come to succour the inhabitants of the mountaine Casius, against the Locusts. For when they make great waste in their corne and other fruits, Iupiter at the instant prayers and supplications of the people, sendeth these fowls among them to destroy the said Locusts. But from whence they come, or whether they go again, no man knoweth: for neuer are they seene but vpon this occasion, namely, when there is such need of their helpe.

CHAP. XXVIII.

¶ *Of the bird Ibis.*

The Egyptians likewise haue recourse in their prayers & inuocations to their birds named Ibis, what time as they be troubled and annoied with serpents comming among them: and in

A in like case the Eleans seeke vnto their god *Myiagros*, for to be rid of a multitude of flies which pester them so, that they breed a pestilence among them. But looke vpon what day they find that Idoll appealed and pacified by their sacrifice, all the flies die forth-with.

CHAP. XXIX.

¶ *What birds they be, which will not abide some places: also which be they that change colour and voice: and then of the Nightingale.*

BUT that which wee should haue said when wee wrote of the departure and going aside of birds: the Howlets also are reported to lie hidden some few daies. Moreover, this is known for a truth, That in the Island Candy there be none at all of them: and in case that any one be thither brought, it will die there. A wonderful thing, that nature should make difference of birds and other creatures in that respect. But sure it is, she hath not brought forth all creatures in all places, but hath priuileged this country more than that: & denied that to one which she hath giuen vnto another. And thus hath shee dealt not onely by fruits of the earth, trees, and plants, but also by liuing creatures. That in some parts this or that should not grow or breed, is a thing commonly seen & known: but that those things should die so soone as they are brought thither, is very strange & wonderfull. What should that be which is so contrary vnto one kind and no more, as that it will not suffer it to liue? What enuie is this of Nature, thus to hinder the breeding or life of any creature? or why should birds be restrained within any limits and bounds in the whole earth? And yet see! In all the Island of Rhodes a man shall not find one Airie of Eagles. In that tract of Italy beyond the Po, and neere vnto the Alpes, there is a lake which they call there Larius; the place about it is right pleasant and delectable, enriched with goodly trees that beare fruit, and faire fields for pasturage: and yet a man shall neuer see any Stork to come thither, no nor within 8 miles of it. And yet in the neighbor quarters of the Insubrians neer adioyning, ye shall haue infinite and innumerable flocks and flights of choughes and jack-dawes: the veriest the eues, nay the only the eues of all other birds, especially for siluer and gold, that it is a wonder to see what meanes they will make to steale and filch it. Men say that in the territory of Tarentum there be no wood-pecks or tree-jobbers. It is but of late daies since that from the mountaine Apennine toward the city of Rome there haue been seen Pyanets with long tailes, party coloured and flacked, wherupon they be called Variæ: and yet such are not common, but very geason to be found. Their property is to be bald euery yeare, what time as men sow rapes or nauewes. The Partridges in the territory of Attica, flie not ouer into the marches of Boeotia. And there is not a bird within the compasse of the sea Pontus, & namely, in the Island wherein Achilles was buried, that will passe beyond the temple consecrated vnto him. In the territory of Fidenæ neer to Rome, Storkes build no nests, neither shall a man find a yong Stork there. But into the parts about Volaterra, there is not a yeare but one shall see a world of Stockdoves flying from beyond sea. At Rome ye shall not haue a fly or dog that will enter into the chappell of Hercules standing in the beast market. In a word, I could alledge many such like examples, which of purpose I passe ouer, because I would not be tedious in my discourses: seeing that Theophrastus reports, how all the Doves, Peacocks, and Rauens, which are in Asia, haue been brought thither from other parts: like as all the Frogs in Cyrenaica, which do erie, whereas their owne be mute all.

As for singing birds, this is another strange and wondrous thing obserued in them. For at certain times of the yere they change their colour in feathers, and alter their voice in singing: and that in such sort, as of a suddaine a man would say they were other birds. A thing that happeneth not to the great fowles aboue-said, saue only vnto Cranes: for they with age wax black. And to begin with the Merle or black-bird, which naturally is blacke, he turnes to be reddish. In Summer he singeth cleare and tunably, in winter he stuteth and stammereth: but about the sun-stead in December he is mute and dumbe altogether. After they be once a yere old, I mean the cockes or males onely of that kinde, their bills turne to be white like yuorie. The Throftles or Mauisses all Summer be painted about the necke with sundry colours, but in Winter they be all of a colour.

The Nightingale for fiftene daies and nights together, neuer giueth ouer but chaunteth continually, namely, at that time as the trees begin to put out their leaues thicke. And surely this

this bird is not to be set in the last place of those that deserue admiration: for is it not a wonder G that so loud and cleare a voice should come from so little a body? Is it not as strange that shee should hold her wind so long, and continue with it as she doth? Moreover, she alone in her song keepeth time and measure truly, she riseth and falleth in her note just with the rules of Musick and perfect harmony: for one while, in one entire breath she drawes out her tune at length treatable; another while she quauereth, and goeth away as fast in her running points: sometime she maketh stops and short cuts in her notes, another time she gathereth in her winde and singeth descant between the plain song: she fetcheth her breath againe, and then you shall haue her in her catches and diuisions: anon all on a sudden, before a man would thinke it, she drowneth her voice, that one can scarce heare her: now and then she seemeth to record to her selfe; and then she breaketh out to sing voluntarie. In sum, the variety and altereth her voice to all keyes: H one while, sui of her largs, longs, briefs, semibriefs, and minims; another while in her crotchets, quauers, semiquauers, and double semiquauers: for at one time you shall heare her voice full of loud, another time as low; and anon shrill and on high: thick and short when she list; drawn out at leisure againe when she is disposed: and then (if she be so pleased) shee riseth and mounteth vp aloft, as it were with a wind-organ. Thus she altereth from one to another, & sings all parts, the Treble, the Mean, and the Bass. To conclude, there is not a pipe or instrument againe in the world (deuised with all the art and cunning of man so exquisitely as possibly might be) that can afford more musick than this pretty bird doth out of that little throat of hers. So as no doubt there was fore-signified most excellent and melodious musicke, by an excellent preface of a nightingale which settled vpon the mouth of *Stechorus* the Poet, and there sung full sweetly: I who afterwards proued to be one of the most rare and admirable musitians that euer was. And that no man should make a doubt that there is great Art and cunning herein, do but marke, how there is not one Nightingale but hath many notes and tunes. Again, all of them haue not the same, but euery one a speciall kind of Musick by her selfe: nay, they strue who can do best, and one laboreth to excell another in varietie of song and long continuance: yea, and euident it is, that they contend in good earnest with all their will and power: for oftentimes shee that hath the worse and is not able to hold out with another, dieth for it, and sooner giueth she vp her vitall breath, than giueth ouer her song. Ye shall haue the yong Nightingales studie and meditate how to sing, by themselves; ye shall haue them listen attentiuely to the old birds when they sing, and to take out lessons as it were from them, whom they would seeme to imitate staffe by K staffe. The scholler when she hath giuen good care vnto her mistresse, presently rehearseth what she hath heard; and both of them keep silence for a time in their turns. A man shall euidently perceiue when the yong bird hath learned well, & when againe it must be taught how to correct and amend wherein it did amisse; yea, and how the teacher will seeme to reprove and finde a fault; no maruell therefore if one of these Nightingales carrie the price (in the market) of a bond-slave; yea and a higher too, than a man might in old time haue bought a good page & harnesse-bearer. I my selfe haue knowne one of them (many it was white, which was a rare thing and not commonly seen) to haue bin sold for 6000 Sesterces, for to be giuen as a Present vnto the Emperesse *Agrippina*, wife of *Claudius Caesar* late Emperor of Rome. And now of late we haue known L many of them taught to begin to sing, only when a man would haue them: and keepe their response in course after others, in good consent and harmony. As also there haue bin found men, who by a deuise of a reed or cane had out of the water, put crosse ouerthwart their mouth, and by putting their tongue into an hole made of purpose in it, and blowing withal, could counterfeit the Nightingale so perfectly, that one might not discern and distinguish the one from the other. Well these little Nightingales, so great chanters as they be, so cunning and full of their conceits, after 13 daies begin to abate and slack their musick; yet so, as a man cannot say, they were either weare, or satisfied with singing: for soone after, when the weather groweth hotter, their voice is cleane altered: for neither are they muscally and tuneable in their measures with varietie as before; but only sing plain song and keep them to one tune. And more than so, they M change their colour in proceesse of time: and last of all, when winter comes, be no more seene. Tongued they are not like other birds, with a thin tip before. They begin to breed with the first in the prime of the Spring, and commonly lay six eggs.

The Gnatcatcher, *Ficedula*, a bird somewhat like vnto the Nightingale, doth otherwise: for at one time it changeth both colour, form, and song. They haue not that name *Ficedula* properly

A perly but in the Autumne, as one would say, fig-feeders: for when that season is once past, they be called *Melanocoryphi*, i. Black-heads.

In like sort, the bird which is named *Prithacus* (i. Robin, or Redbreast) in winter; the same is *Phoenicurus* [i. Red-tail] all summer long.

The Houpe or Vpupa (as *Aeschilus* the Poet saith) changeth also her hew, voice, and shape. This is a * nasty and filthy bird otherwise, both in the manner of feeding, and also in nestling: but a goodly faire crest or comb it hath, that will easily fold and be plaited: for one while shee will draw it in, another while set it stiffe vp right along the head.

As for the bird *Oenanthe*, it also for certain daies lieth close and vnseen, & namely, when the Dog-star ariseth, it is hidden: but after the occultation thereof, commeth abroad & sheweth her selfe: a strange thing, that in those daies it should do both. Last of all, the * Witwall or Lariot, B which is all ouer yellow, being not seen all winter time, appeareth about the Sun-steads.

CHAP. XXX.

¶ Of the Merles.

A Bout Cyllene in Arcadia, and nowhere els, ye shall find white Merles or Ousles. And Ibis, about Pelusium only in Egypt, is blacke; in all places else of Ægypt, white.

CHAP. XXXI.

¶ The kind of birds breeding and hatching.

C All singing birds, saue only those that are excepted before, lightly breed not nor lay their eggs before the spring Æquinoctiall in mid-March, or after the Autumall, in mid-September. And those that they hatch before the Summer Sunstead (i. Mid-Iune) hardly come to any perfection: but after that time, they dowell enough and liue.

CHAP. XXXII.

¶ Of the Halcyones, or Kings-fishers: and the daies good for nauigation which they shew. Of the Sea-gulls and Cormorants.

D And in this regard especially, namely for breeding after the summer Sunstead, the Halcyones are of great name and much marked. The very seas, and they that saile thereupon, know well when they sit and breed. This very bird so notable, is little bigger than a sparrow: for the more part of her pennage, blew, intermingled yet among with white and purple feathers, hauing a thin smal neck and long withall. There is a second kind of them breeding about the sea side, differing both in quantitie and also in voice; for it singeth not as the former doe which are lesser, for they haunt riuers, & sing among the flags & reeds. It is a very great chance to see one of these Halcyones, & neuer are they seen but about the setting of the star *Virgilia*, [i. the Brood-hen:] or els neere Mid-summer or Mid-winter: for otherwhiles they will flie about a ship, but soone are they gone againe and hidden. They lay and sit about Mid-winter when daies be shortest: & the time whiles they are broody, is called the Halcyon daies: for during that season, the sea is calme and nauigable, especially in the coast of Sicilie. In other ports also the sea is not so boisterous, but more quiet than at other times: but surely the Sicilian sea is very gentle, both in the Streights and also in the open Ocean. Now about seuen daies before Mid-winter, that is to say, in the beginning of December, they build; and within as many after they haue hatched. Their nests are wonderously made, in fashion of a round ball: the mouth or entrie thereof standeth somewhat out and is very narrow, much like vnto great spunges. A man cannot cut and pierce their nest, with sword or hatchet; but breake they wil with some strong knock, like as the dry some of the sea: and no man could euer find of what they be made. Some thinke they are framed of the sharpe pointed prickles of some fishes, for of fish these birds liue, E They come vp also into fresh riuers within-land: and there do lay ordinarily five eggs.

As touching the Gulls or Sea-cobs, they build in rocks: and the Cormorants both in them, and also in trees. They vsually lay fource eggs apiece. The Gulls in summer time, but the Cormorants in the beginning of the spring.

CHAP.

¶ *The industrie and wit of birds in building their nests. Of the Swallow, the Argatilis, Cinnamologi, and Partridges.*

THE Architecure and building of the Halcyones nest, hath put me in mind of other birds dexterity in that behalfe: and surely in no one thing is the wit of silly birds more admirable. The swallows frame their nests of clay & earth, but they strengthen and make them fast with straw. In case at any time they cannot meet with soft and tough clay, for want thereof they drench and wet their feathers with good store of water, and then bestrew them over with dust. Now when they have made and trimmed their bare nest, they floore it in the bottom within, and dresse it all over with downe feathers or fine floss, as well to keep their eggs warm, as also that their yong birds should lie soft. In feeding of their little ones, they keepe a very good order and even hand, giuing them their pittance and allowance by course one after another. Notable is their care in keeping them neat and cleane; for ever as they meate, they turne the excrements out of the nest: but be they once growne to any strength and bignesse, they teach them to turne about and lay their tails without.

Another kinde there is of Swallows, that keep in the country villages and the fields, which seldom nestle vnder mens houses: and they likewise build of the same matter as the former do, namely, of clay and straw, but after another fashion: for their nests are made turning all vpward, with the hole or mouth that leadeth vnto it, stretched out in length streight and narrow, but the capacite within is very large, in such sort, as it is a wonder to see how proudent & skilful they should be to frame them in this manner, so hand some & conuenient to couer their yong ones; so soft againe for their couch and bed. In the mouth of Nilus neere Heraclea in Egypt, there is a mightie banke or causey raised only of a continuall ranke and course of Swallows nests, piled one vpon and by another thicke, for the length almost of halfe a quarter of a mile; which is so firme and strong, that being opposed against the inundations of Nilus, it is able to breake the force of that riuier when it swelleth, and is it selfe inexpugnable: a piece of work that no man is able to turne his hand vnto. In the same Egypt neere vnto the towne Coptos, there is an Island consecrated vnto the goddesse Isis, which euery yere these Swallows do rampier and fortifie, for feare lest the same Nilus should eat the banks thereof and break ouer into it. In the beginning of the Spring, for three nights together, they bring to the cape of that Island, straw, chaffe, and such like stuffe, to strengthen the front thereof: and for the time, they ply their businesse so hard, that for certaine it is knowne, many of them haue died with taking such paines and moiling about this worke. And verily euery yere they go as daily to this taske againe, as the Spring is sure to come about; and they faile not, no more than souldiers that by vertue of their militarie oath and obligation, go forth to seruice and warfare.

A third sort there is of these Swallows and Martinets, which hollow the banks of riuers, and so nestle within between. The yong birds of these Martins, if they be burnt into ashes, are a singular and foueraigne remedy for the deadly squinancy, and helpe many other diseases of mans body. These build not at all, but if they perceiue that the riuier Nilus when it swelleth, will rise as high as their holes, they are gone many daies before.

There be certaine birds of the kind of Parrae, which of drie mosse make a nest, resembling so perfectly a round ball, that vnneth or hardly a man can see which way they should goe in. And another there is called Argatilis, which contriueh her nest after the same forme, but it is of hurds and flaxe.

There is a kind of Woodpecker, maketh a nest in manner of a cup or goblet, and hangeth it at a twig vpon the vppermost boughs and branches of a tree, that no foure footed beast should reach it. And as for the birds called Gulguli, men say for a truth, that they take their sleep hanging all by their legges to some branch, thinking by that means they are in more safety. True it is indeed and commonly known, that all these birds in great forecast & prouidence, chuse some crosse boughes in stead of rafters, to suphorth and beare vp their nests; and then to saue them from the raine, either vault them over with an arched rooffe, or else couer them close and thicke with leaues.

A bird there is in Arabia called Cinnamologus, which with the twigs and branches of the Cinnamon

A Cinamon tree buildeth her nest. The inhabitants of that country being ware thereof, shake the same downe by shooting arrows headed with lead, for to make a commoditie therby. In Scythia, there is a bird of the bignesse of an Otis, which commonly laieth two eggs, and when they are lapped within a bares skin, alwaies hangeth them vpon the top of tree boughes. The Pyanets, when they perceiue (by a watching eie that they haue) that a man hath spied their nest, presently build in another place, and remoue their eggs thither. Now for those birds which haue no hooked nailes, how they should translate their eggs from one place to another, considering their feet are not made to clasppe them, it is a wonderful thing, and reported after a strange manner; for they lay a stick ouer two eggs, and soulder it fast to them with a certain viscositie which commeth forth of their own guts when they meate: which done, they put their neckes vnder the stick between both eggs, which hanging equally poised of either side, they carry easily whither they would.

No lesse industrious are they that make their nests in the ground, as being not able to fly in to the aire by reason of their weightie bodies. Among which there is one called Merops, that useth to feed her parents, lying hidden within the earth. The inside of her feathers in the wing is pale, the outside blew; and yet those about their neck, are somewhat red. She makes her nest in an hole six foot deep within the ground. Again, the Partridges do so fortifie and impale their nests with thornes and twigs of shrubs and bushes, that they be sufficiently fenced against the inuasion of wilde beasts. They couer their eggs with a soft carpet or hilling as it were of fine dust: neither do they sit where they laid them first, nor yet in a place which they suspect to be much frequented with resort of passengers, but conuey them to some other place. The hennes verily of this kind, hide themselves from their males the cocks; for so lecherous they be and giuen to intemperate lust, that they would squash their eggs, because they should not be amused and occupied about sitting. Then, for want of the females, the males go together by the eares; and (as they say) he that is ouercome, suffereth himselfe to be troden like an hen. *Trognus* verily reporteth the very same of the Quailles, yea and of dounghill cocks otherwhiles. He saith moreover, that tame Partridges vse to tread the wild: also that those which are new taken or beaten, be troden of others indifferently one with another. This libidinous heat of theirs is such, and maketh them so quarrelsome, that oftentimes they are taken by that means. For when the fouler commeth with his pipe or call (resembling the female) to allure and traine them forth, outgoeth the captain of the whole flocke directly against him: and when he is caught, another followeth after, and so the rest one after another, one by one. In like manner, they vse to take the females, at what time as they seeke the male to tread them: for then, forth they goe against the foulers chanterell or watch which calleth them out, that with their quarrelling and brawling which they make, they might chase and driue it away. In sum, there is not to be found in any other liuing creature, the like againe for lust and lecherie in the act of generation. If the hens do but stand directly ouer against the cocks, the very wind and aire that passeth from them, will cause them to conceiue as well as if they were troden. For so hot they be in that season, that they gape againe for aire, and hang the tongue out of their heads. And if the males do but flie ouer them, with the very breath and aire that commeth from them, they will be ready to conceiue: yea and many times, if they do but heare their call. And that which more is, so lecherous they are, that setting aside their naturall affection and loue to their yong couie, when they are broody (and in which regard they steale from the cocke, and sit apart in some secret and blind corner) yet if they heare once the Foulers chanterell comming toward the male, and that he doth call, presently they will leaue the nest and suffer the eggs to chile, and for very ieaousie cry againe and call backe the males, and offer themselves to be troden, for feare they would goe to others. Nay more than that, their fury and rage that way many times is such, that otherwhiles in this blind fit and fearful lust, not knowing where they are nor what they do, they will light and settle vpon the very head of the fouler. Also, if he chance to approch the nest of the brood-hen, she will run forth and be about his feet, she wil counterfeit that she is very heauy and cannot scarce go, that she is weake and enfeeblished: and either in her running, or short flight that she taketh, she wil catch a fall, and make semblance as if she had broken a leg or a wing: then will she run out againe another way, and when he is ready to take her vp, yet will she shift away and escape, and so put him besides his hope. And all this doth shee to amuse the Foulers after her, vntill she haue trained him a contrary way from the couey. Now by that time that shee is past that

feare, and freed of the motherly care she had of her yong ones, then will she get into the furrow of some land, lie along on her back, catch a clot of earth vp with her feet, and therewith hide her whole body, and so saue both her selfe and her couey. To conclude, Partridges (by report) liue 16 yerres.

CHAP. XXXIV.

¶ Of House-doues.

NExt after Partridges, the nature of Doues would be considered, since that they haue in a manner the same qualities in that respect: howbeit, they be passing chaste, and neither male nor female change their mate, but keep together one true vnto the other. They liue (I say) as coupled by the bond of mariage: neuer play they false one by the other, but keep home still, and neuer visit the holes of others. They abandon not their owne nests, vnlesse they bee in state of single life or widdowhead by the death of their fellow. The females are very meek and patient; they wil indure and abide their emperious males, notwithstanding otherwhiles they be very churlish vnto them, offering them wrong and hard measure; so jealous be they of the hens, and suspicious, though without any cause and occasion giuen: for passing chaste and continent by nature they are. Then shall ye heare the cocks grumble in the throat, quarrell and complain, and all to rate the hens: then shall ye see them peck and job at them cruelly with their beakes; and yet soone after, by way of satisfaction, and to make amends again for their curst vsage, they will fall to billing and kissing them louingly, they will make court vnto them and wooe them kindly, they will turne round about many times together by way of flatterie, and as it were by praiers seeke vnto them for their loue. As well the male as the female be careful of their yong pigeons, and loue them alike; nay ye shall haue the cocke oftentimes to rebuke, yea chastise the hen, if she keep not the nest well; or hauing bin abroad, for comming no sooner home againe to her yong. And yet, kind they be to them, when they are about to build, lay, and sit. A man shall see how ready they be, to helpe, to comfort and minister vnto them in this case. So soon as the eggs be hatched, ye shall see them at the very first, spit into the mouths of the yong pigeons salt brackish earth, which they haue gathered in their throat, thereby to prepare their appetite to meat, and to season their stomacks against the time that they should eat. Doues and Turtles haue this property, in their drinking not to hold vp their bills between-whiles, and draw their necks backe, but to take a large draught at once, as horses and kine do.

CHAP. XXXV.

¶ Of Stockedoues.

Some authors we haue, who affirme that Stockdoues liue ordinarily 30 yerres, and some vntill they be 40 yerres old. In which time they find no infirmities nor discommodity at all but only this, That their claws be ouergrowne, which is a signe of their age: howbeit they may be pared without danger. They haue all of them one and the same manner of tune in their singing; and commonly they make three rests in their song, besides the fa-burden in the end, which is a kind of grone. All winter they be silent: in spring they are loud enough, & the woods resound with them. *Nigidius* is of opinion, that if a man call vnto a Stockdove within-house as she is sitting vpon her eggs, she will leaue her nest, and come at the call. They doe lay after Midsummer. These doues and Turtles liue eight yerres.

CHAP. XXXVI.

¶ Of Sparrowes.

Contrariwise, the Sparrow is but short liued, howbeit as lecherous as the best. The cocke Sparrow (by report) liueth but one yeare; the reason why men so thinke, is, because in the spring there is not one of them found with a blacke bill, and yet in summer before, it began to be blacke. The hens liue somewhat longer. But to come againe to Doues, it is generally held, that they haue a certaine sense and feeling of glory: and a man would verily thinke, that they haue a knowledge of their gay feathers, and how they are changeably coloured as a man looketh

A looketh vpon them & as they stand. Moreouer, they seem to take a pride in their flying, whiles they keep a clapping of their wings and cutting of the aire euery way, as if they had a pleasure to be flying abroad. In which brauerie of theirs, whiles they flap with their wings and keepe a glorious noise (which cannot be without the beating of their very pinions together) they are exposed to the Faulcon and other hawks, as prisoners fast bound and tied: for otherwise if they would flie at liberty and ease, without keeping such adowith their clapping, they were much more swift of wing, than the very hawks that prey vpon them. But the hawke like a very theefe, lieth hidden among the boughes and branches of trees, marketh the Dove how he fetcheth his flight and taketh his pleasure in the aire; and when he seeth his time (in all this glory of his and the mids of his brauery) seizeth vpon him and carieth him away.

CHAP. XXXVII.

¶ Of the Kestrell.

TO preuent this danger therefore, the Doues need to haue with them the bird which is called *Tinnunculus*, i. a Kestrell, or Stannell: for the defendeth them, and (by a certaine naturall power that she hath) skareth and terrifieth all other hawks: inso much, as they cannot abide either to see her, or to heare her cry. Whereupon Doues about all others, loue these birds. And (as men say) pigeons will not leaue their own douecoats to flie to another, if in the foure corners thereof there be entered foure Kestrels abovesaid, in foure new earthen pots well nealed, and neuer vsed before. But others haue vsed means to keep pigeons in their douehouse (for otherwise they be birds that loue to be ranging and wandring abroad) namely, by slitting and cutting the ioints of their wings with some thin sharp piece of gold: for if you do not so, their wounds will fester and be dangerous. And in very truth, these birds be soon seduced and trained away from their owne homes: and they haue a cast with them to flatter and entise one another: they take a great delight to inueagle others, and to steale away some pigeons from their owne flocks, and euermore to come home better accompanied than they went forth. Moreouer, Doues haue serued for posts and courriers between, and bin imploied in great affairs: and namely, at the siege of Modenna, *Decimus Brutus* sent out of the town letters tyed to their feet, as far as to the camp where the Consuls lay, and thereby acquainted them with newes, and in what estate they were within. What good then did the rampier and trench which *Antonius* cast before the towne? To what purpose serued the streight siege, the narrow watch and ward that he kept, wherefore serued the riuier Po betwene, where all passages are stopped vp as it were with net and toils, so long as *Brutus* had his poits to flie in the aire ouer all their heads? To be short, many men are growne now to cast a speciall affection and loue to these birds: they build Turrets about the tops of their houses for doue-coats. Nay they are come to this passe, that they can reckon vp their pedigree and race, yea they can tel the very places from whence this or that pigeon first came. And indeed one old example they follow of *L. Axius* a Gentleman sometime of Rome, who before the ciuill war with *Pompey*, sold euery paire of pigeons for * 400 deniers, as *M. Varro* doth report. True it is, that there goeth a great name of certaine countries where some of these pigeons are bred: for Campanie is voyced to yeeld the greatest and fairest bodied of all other places. To conclude, their manner of flying induceth and traineth me to thinke and write of the flight of other foules.

CHAP. XXXVIII.

¶ Of the gate and flight of birds.

All other liuing creatures haue one certaine manner of marching and going, according to their seuerall kind, vnto which they keep and alter not. Birds only vary their course, whether they go vpon the ground or flie in the aire. Some walke their stations, as Crows and Choughs; others hop and skip, as Sparrowes and Ousels: some run, as Partridges, Woodcocks, and Snites; others again cast out their feet before them, stalk and jet as they go, as Storks and cranes: now for flying, some spread their wings abroad, stirring or shaking them but now & then,

hanging and howering with them all the while [as Kites:] others again ply them as fast; but the ends only of their wings, or the utmost feathers are seen to moue [as the Chaffinch.] Yee shall haue some birds to stretch out their whole wings & sides, mouing them as they flie [as Rauens] and others a man shal see in their flight to keep them in, for the most part close [as the Woodpeckers.] Some of them are known to giue one or two claps with their wings at first, and then glide smoothly away, as if they were carried and born vp with the aire [as Linnets:] and others are seen (as if they kept stil the aire within their wings) to shoot vp aloft & mount on high, to flie streight forward, & to fal down again flat [as Swallows.] Yewould think and say that some were hurled out of a mans hand with violence [as the Partridge:] and others again to fal down plumbe from on high [as Larks,] or els to leap & jump [as the Quailes.] Ducks, Mallards, and such like, spring presently from the ground vp aloft, and suddenly mount vp into the skie, euen out of the very water: which is the cause, that if any chance to fall into those pits wherein wee take wild beasts, they alone wil make good shift to get forth and escape. The Geirs or Vulturs, and for the most part all weightie and heavy fowles, cannot take their flight & flie, vnlesse they fetch their run and biere before, or els rise from some steepe place with the vantage. And such are directed in the aire by their tails. Some looke about them euery way, others bend and turne their necks in flying; and some fly with their prey within their talons, & eat it as they fly. Most birds cry and sing as they flie, yet some there be contrariwise, that in their flight are euer silent. In one word, some flying carry their breasts and bellies halfe vpright: others again beare them as much downward. Some flie side-long and bias: others directly forward, and follow their bills: and last of all there be that bend backward as they flie, or els bolt vpright. In such sort, that if a man saw them all together, he would take them not to be one kind of creature, so diuers & different are they in their motions.

CHAP. XXXIX.

¶ Of Martinets.

Martinets, which the Greeks call Apodes (because they haue little or no vse of their feet) and others, Cypseli, are very good of wing, and flie most of all others without rest. And in very truth, a kind of Swallows they be. They build in rocks & stony cliffes. And these be they and no other, that are seen euermore in the sea: for be the ships neuer so remote from the land, saile they neuer so fast and far off, ye shall haue these Martinets alwaies flying about them. All kinds els of Swallowes and other birds, do somewhat light, fettle, and perch: these neuer rest, but when they be in their nest. For either they seem to hang, or els lie along: and a number of shifts and deuises by themselves they haue besides, and namely when they feed.

CHAP. XL.

¶ Of the bird Caprimulgus, and the Shouelar.

The Caprimulgi (so called of milking goats) are like the bigger kind of Owls. They bee night-theeues; for all the day long they see not. Their manner is to come into the sheepheards coats and goat-pens, and to the goats vdders presently they go, and suck the milke at their teats. And looke what vdder is so milked, it giueth no more milke, but misliketh and falleth away afterwards, and the goats become blind withall.

There be other birds named Plateæ, i. Shouelars. Their manner is to flie at those foule that vse to diue vnder the water for fish: and so long will they peck and bite them by the heads, vntill they let go their hold of the fish they haue gotten, and, so they wring it perforce from them. This bird when his belly is full of shell fishes that he hath greedily deuoured, and hath by the naturall heat of his craw and gorge in some sort concocted them, casteth vp all vp again: and at leisure picketh out the meat, and eateth it again, leauing the shells behind.

CHAP. XLI.

¶ The naturall wit of some birds.

The Hens of country houses haue a certaine ceremonious religion. When they haue laied an egge, they fall a trembling & quaking, and all to shake themselves. They turne about also

A also, as in procession, to be purified, & with some festiue or such like thing, they keep a ceremonie of hallowing, as well themselves as their eggs.

CHAP. XLII.

¶ Of the Linner, Poppinjay or Parrat, and other birds that can speake.

The Linnets be in manner the least birds of all others: howbeit they be very docible. Doe they will whatsoever they are taught & bidden, not only in their voice, but also with their feet and bills, as if they were hands. In the territorie about Arelate, there is a bird called Taurus (because it loweth like a bull or cow, for otherwise a small bird it is.) There is another also named Anthus, which likewise resembleth the neighing of horses: and if haply by the approach of horses they be driuen from their grasse wherof they feed, they will seem to neigh; and flying vnto them, chase them away, and so be reuenged of them again. But about all other birds of the aire, the Parrats passe, for counterfeiting a mans voice: in somuch, as they will seeme to parle and prate our very speech. This foule commeth out of the Indies, where they call it Sittace. It is all the body ouer greene, onely it hath a collar about the necke of vermilion red, different from the rest of her feathers. The Parrat can skil to salute Emperors, and bid t'good morrow: yea, and to pronounce what words she heareth. She loueth wine well, and when she hath drunk freely, is very pleasant, plaifull, and wanton. She hath an head as hard as is her beak: when she learns to speake, she must be beaten about the head with a rod of yron: for otherwise she careth for no blowes. When she taketh her flight down from any place, she lighteth vpon her bill, and resteth thereupon, and by that means fauoreth her feet, which by nature are but weake and feeble, and so carrieth her owne weight more lightly.

There is a certain Pie, of nothing so great reckoning and account as the Parrat, because shee is not far set, but here-by neere at hand: howbeit, she pronounces that which is taught her more plainly and distinctly than the other. These take a loue to the words that they speake: for they not only learn them as a lesson, but they learn them with a delight and pleasure. In somuch that a man shall find them studying thereupon, and conning the said lesson: and by their carefull thinking vpon that which they learn, they shew plainly how mindfull and intenuie they be thereto. It is for certain knowne that they haue died for very anger and griefe that they could not learn to pronounce some hard words: as also, vnlesse they heare the same words repeated often vnto them, their memory is so shittle, they will soone forget the same againe. If they misse a word, and haue lost it, they will seeke to call it againe to remembrance; and if they fortune to heare the same word in the mean time, they will wonderfully ioy thereat. As for their beautie, it is not ordinary, although it be not very louely. But surely amiable enough they are in this, that they can so well resemble mans speech. It is said, that none of their kinde are good to bee made scholars, but such only as feed vpon mast: and among them, those that haue five toes to their feet. But euen these also are not fit for that purpose, after the first two yeares of their age. And their tongue is broader than ordinarie: like as they be all that counterfeite mans voice, each one in their kind; although it be in maner general to all birds whatsoever to be broad tongued. Agrippina the Empresse, wife to Claudius Cesar, had a Black-bird or a Throstle, at what time as I compiled this booke, which could counterfeite mans speech; a thing neuer seen nor knowne before. The two Cesars also, the yong princes (to wit, Germanicus & Drusus) had one Stare, & sundry Nightingales, taught to parle Greeke and Latine. Moreover, they would studie vpon their lessons, and meditate all day long: and from day to day come out with new words still, yea, and were able to continue a long speech & discourse. Now for to teach them the better, these birds must be in a secret place apart by themselves, where they can heare no other voice: and one is to fit ouer them, who must repeat often that which he would haue them to learn; yea, and please them also with giuing them such meat as they best loue.

CHAP. XLIII.

¶ The vnderstanding and wit that Rauens haue.

Lets vs not defraud the Rauens also of their due praise in this behalfe, considering, that the whole people of Rome hath testified the same not only by taking knowledge, but also by a publicke reuenge & exemplarie punishment. And thus stood the case. In the daies of Tiberius

Nberius the emperor, there was a yong Rauē hatched in a nest vpon the church of *Castor & Pollux*; which, to make a triall how he could flie, took his first flight into a shoemakers shop just ouer-against the said church. The master of the shop was well enough content to receiue this bird, as commended to him from so sacred a place, and in that regard set great store by it. This Rauē in short time being acquainted to mans speech, began to speak, & euery morning would fly vp to the top of the Rostra or publick pulpit for Orations, where, turning to the open Forum & market place, he would salute and bid good morrow to *Tiberius Caesar*, and after him, to *Germanicus* and *Drusus* the yong princes, both *Cæsars*, euery one by their names: and anon the people of Rome also that passed by. And when he had so don, afterwards would flie again to the shoemakers shop aforesaid. This duty practised, yea and continued for many yeres together, to the great wonder and admiration of all men. Now it fell out so, that another shoemaker who had taken the next conuiners shop vnto him, either vpon a malicious enuie that he occupied so neer him, or some sudden spleene and passion of choler (as he would seeme to plead for his excuse) for that the Rauē chanced to meūt a little, and set some spot vpon a paire of his shooes, killed the said Rauē. Whereat the people tooke such indignation, that they rising in an vpror, first droue him out of that street, and made that quarter of the city too hot for him: and not long after murdered him for it. But contrariwise the carkasse of the dead Rauē was solemnly entered, and the funerals performed with all ceremoniall obsequies that could be deuised. For the corps of this bird was bestowed in a coffin, couch or bed, and the same bedecked with chaplets and garlands of fresh floures of all sorts, carried vpon the shoulders of two blacke-Mores, with minstrels before, sounding the Haut-boies, and playing on the Fife, as far as to the Funeral fire; which was piled and made in the right hand of the cauley Appia, two miles without the city in a certain plain or open field called Rediculi. So highly reputed the people of Rome that ready wit and apt disposition in a bird, as they thought it a sufficient cause to ordaine a sumptuous buriall therefore: yea, and to reuenge the death thereof, by murdering a citizen of Rome in that city, wherein many a braue man and noble person died, and no man euer solemnized their funerals: in that city I say which afforded not one man to reuenge the vnworthy death of that renowned *Scipio Emilianus*, after he had woon both Carthage and Numantia. This happened the fifth day before the Calends of Aprill, in the yere when *M. Seruilius*, and *C. Cestius* were Consuls of Rome. Moreouer, euen at this very present, when I wrote this historie, I saw my selfe a Crow belonging to a certain knight of Rome, who brought him out of the realm of Grenado in Spaine, which was a very strange and admirable bird, not only for the exceeding blacke colour of his feathers, but also for that he could pronounce and expresse so perfectly many words and sentences together, and learned still new lessons euery day more than other. It is not long since that there went a great bruit and fame of a notable hunter in Erizena a countrey of Asia, whose name was *Craterus Monoceros*: that vsed to hunt by the meanes and helpe of Rauens. His manner was to carry with him these Rauens into the Forrest, perching vpon his shoulders & his hunting hornes: and these would seeke out and put vp other wilde ones, and bring them to him. Thus by custom & vse he brought his hunting to this good passe, that when he returned homeward out of the forest, the wild as well as the tame would accompany him. Some haue thought it worth the setting downe vpon record, how there was a Rauē scene in time of great drought when water was hard to come by, for to cast stones into the bucket belonging to a sepulchre, wherein there was some rain water remaining toward the bottome, but so deepe, that he could not reach vnto it: and being afraid to go downe into it, by heaping vp many stones, hee brought the water to rise so high, as he might drinke sufficient with ease.

CHAP. XLIV.

¶ Of *Diomedes* his birds.

Neither will I ouerpasse the birds called *Diomedes*, which *K. Iuba* nameth *Cataraeta*. Toothed they are, as he saith, and they haue eies as red and bright as the fire: otherwise their feathers be all white. Who also affirmer, that they euermore haue two captains, the one for to lead the vaward, and the other for the rereguard. With their bills they dig little trenches & gutters in the ground: ouer which from side to side they lay sticks, acrosse like hurdles, arti-

A artificially, and then couer the same ouer with the earth they cast forth before, vnder which they breed. Euery of these trenches hath two dores, the one regarding the East, at which they go forth to their meat: and the other looking toward the West, by which they come in againe after their returne. Whensoever these birds would meūt, they flie euer full into the winde, because they would not file themselves. Found they be in one place of the world, and but in one, namely in a certaine Island, innobled, as we haue written before, for the tombe and Temple of *Diomedes*, and it lieth vpon the coast of Apulia. These birds are like vnto the white sea Mewes with a blacke cop. Their manner is to cry with open mouth vncessantly at any strangers that come aland, saue only Grecians, vpon whom they will seem to fawn and make signes of loue and amitie in all flattering wise. A wonderfull thing that they should discerne one from another, and giue such friendly welcome to them, as descended from the race of *Diomedes*. Their manner is euery day to charge their throat and wings full of water, and all to drench therewith the said temple of *Diomedes*, in token of purification. Whereupon arose the fable, That the companions of *Diomedes* were turned into these birds.

CHAP. XLV.

¶ What Birds are not apt to learne, and will not be taught.

And now that we are in this discourse of wit and capacitie, I must not omit to note, That of birds the Swallow; and of land beasts the Mouse and the Rat, are very vntoward, and cannot be brought to learn. Whereas we see great Elephants ready to do whateuer they are commanded: the furious Lions brought to draw vnder the yoke: the Seals within the sea, and so many sorts of fishes grow to be tame and gentle.

CHAP. XLVI.

¶ The manner of Birds in their drinking.

Birds drinke sucking, and those that haue long necks make stayes betweene, and euery while hold vp their bil from the water, as if they would poure the water down their throat. The bird *Porphyrio* alone seems to bite the water as he drinketh. And this bird hath this pertie by himselfe, to dip and wet all his meat euer and anon in water, and then with his foot in lieu of an hand to reach it vnto his bil. The best of this kind are in Comagene. Their bills and long thanks that they haue be red.

CHAP. XLVII.

¶ Of the Foule *Himantipus*, the *Onocrotali*, and other strange fowles.

Like in that respect vnto the *Porphyrio*, is the *Himantipus*, a bird far lesse in body, but full as long legged, and stalking as high. They are bred in Egypt, and go vpon three toes to a foot. Their most feeding is vpon flies. In Italy they liue not many daies. All great & heauie birds liue on seeds and corn: they that fly on high prey vpon flesh. Among water foules the Cormorants vse to deuoure that which other birds either disgorge or meute. The *Onocrotali* much resemble swans, and surely they might be thought the very same and no other, but that they haue within their throat another kind of gizzar besides their craw, in which, these fowles being vnfatiable, bestow all that euer they can get; whereby it is of a wonderfull great capacite, and will receiue very much. Now when they haue done the rauening, and filled this poke, soon after they conuey it from thence by little and little into their mouth, and there chew the cud, vntill after it be well prepared, they swallow it downe into the very craw and belly indeed. These fowles are to be found in the parts of Picardie and Normandy in France, lying vpon the North Ocean. In Hircinia, a Forrest of Germanie, we haue heard that there be strange kinds of birds, with feathers shining like fire in the night season. In other respects I haue nothing to say of them worth the writing, saue only they are of some name for being far fetched.

CHAP.

OF water fowls, the Phalerides are thought in Seleucia of the Parthians, and also in Asia, to be the daintiest. Likewise the Fesant hens of Colchis, which haue two ears as it were consisting of feathers, which they will set vp and lay down as they list. The Ginnie or Turkey hens in a part of Affricke called Numidia, be in great request, as also throughout all Italy now adaies. *Apicius*, the most riotous glutton and belly-god of his time, taught men first, that the tongue of Phœnicopterus was a most sweet and delicat piece of meat. The Moore-hen of Ionia is much commended and highly esteemed. This bird so soon as she is taken prisoner, loseth her voice and is mute; for otherwise she is vocal and loud enough, and in old time was reputed a rare and singular bird. But now there be caught of them in France and Spain, yea and among the Alps: where also the Plungeons or bald Rauens be, which heretofore were thought proper and peculiar to the Balcare Islands: like as the Pyrrhocorax [*i. the red Rauen*] with the yellow bill, was supposed to breed onely among the Alps: and with it the Lagopus, a dainrie bird, and most pleasant in the dish. And this name it took in Greck, because it is rough footed and haired like the hairees foot: otherwise all ouer white, and as big as a pigeon. Haue her out of the ground, vnder which she breedeth, you shall hardly get her to feed, neither will shee be made tame, liue she neuer so long: kill her once, the body presently wil rot and putrifie. There is another besides of that name, and differeth from Quailles onely in bignesse, for it is greater than the Quaille; and with a yellow sauce of saffron it is a most delicate piece of meat. *M. Egnatius Calvinus* gouernor of the parts about the Alps, reporteth, that he hath seen there the Ibis a bird proper to the land of Egypt.

DVring the ciuill wars between *Otho* and *Vitellius*, and namely about the time of the journey or battell of *Bebriacum* beyond the Po, there were these new birds (for so they be called still at this day) brought into Italy. Like they be to Thrushes or Mavisses, somewhat lesse than house doves, pleasant in the eating. The Balcare Isles send vs another *Porphyrio*, better than that before named, *cap. 46*. Where the Buzards also a kind of Hawk are held for excellent meat, and serued vp at the table. Likewise the *Vipio*, for so they call the lesser Crane. As for the fowles called *Pegasi*, headed like horses; and the Griffons, which are supposed to haue long eares and a hooked bill, I take them to be meere fables: and yet they say that the *Pegasi* should be in *Scythia*, and the Griffons in *Ethiopia*. Moreouer, I thinke the same of the *Tragopanades*, which many men affirm to be greater than the Egle, hauing crooked horns like a ram on either side of the head, of the colour of iron, and the head only red. As touching the Birds *Syrenes*, I wil neuer beleue there be any such, let *Dino* the father of *Clitarchus* that renowned writer say what he wil: who auoucheth for a truth, that they be in India, and that with their singing they wil bring folk asleep, and then fly vpon them and teare them in pieces. He that will giue credit to these fables, may even as well beleue, that dragons forsooth taught *Melampus* by licking his eares, how to vnderstand the language of birds when they chaunt and sing vpon trees, or cry and chirp in the aire. Likewise the tales that *Democritus* telleth, who nameth certain birds, of whose bloud mingled together and suffered to corrupt, there is ingendred a Serpent, which whosoever eateth shall know what birds say one to another in their speech: and namely the strange things he telleth of the Lark about the rest. For verily without these fabulous lies, mens heads be occupied enough, and too much so, about the Auguries onely and pre-fages of birds, that they haue no need to busie & trouble their brains about those toies. *Homar* makes mention of certain birds called *Scopes*: but I cannot conceiue those satyricall gesticulations of theirs like *Artikes* when they are perched, which so many men talke of, neither doe I think otherwise, but that these birds are out of knowledge now a daies. And therefore far better it is to write of those we know.

THEY of the Island *Delos* began the cramming of Hens and Pulleins first. And from them arose that detestable gourmandise and gluttonie to eat Hens and Capons so fat & enterlarded with their owne greafe. Among the old statutes ordained for to repress inordinate feasts, I find in one act made by *C. Fannius*, a Consul of Rome, eleuen yeres before the third *Punic* war, an expresse prohibition and restraint, That no man should haue his table serued with any foule, vnlesse it were one hen, and no more, and the same a runner only, and not fed vp and crammed fat. The branch of this one statute was afterwards taken forth and inserted in al other acts provided in that behalfe, & went currant thorough all. Howbeit, for all the law so well set down, there was a starting hole found to delude and escape the meaning thereof, namely, to feed Cocks & Capons also with a pait soked in milk & mead together, for to make their flesh more tender, delicate, and of sweeter tast: for that the letter of the statute reached no farther than to Hens or Pullets. As for the Hens, they only be thought good and well ynough cramm'd, which are fat about the neck, and haue their skin plumpe and soft there. Howbeit, afterwards our fine cookes began to looke to their hind-parts about the rumpe, and chuse them thereby. And that they should make a greater shew in the platter, they slit them along the chine: and lay their legs out at large, that they might take vp the whole dresser board. The Parthians also haue taught our cooks their own fashions. And yet for all this fine dressing and setting out of meat, there is nothing that pleaseth and contenteth the tooth of man in all respects, while one loues nothing but the leg, another likes and praises the white brawne alone, about the breast bone. The first that deuised a Barton & Mue to keepe foule in, was *M. Lenius Strabo*, a gentleman of Rome, who made such an one at *Brindis*, where he had enclosed birds of all kinds. And by his example we began to keepe foules within narrow coups and cages as prisoners, to which creatures Nature had allowed the wide aire for their scope and habitation.

BVt in the relation and report of this argument, notorious about all the rest in our memorie is that platter of *Clodius Æsopus*, the plaier of Tragedies, which was esteemed worth * six hundred Sestertia. In this one charger he serued vp at the table all kind of birds that either could sing or say after a man: and they cost him six hundred Sesterces apeece. And surely it was no delight & pleasure that he sought herein to content the tooth, but only that he would haue the name to eat the resemblers of mans voice: without any consideration & regard that he had of all that great riches and reuenues of his owne, which himselfe had gotten by his tongue, and by counterfeiting the speech of others. A father verily worthie such a sonne, who as we said before, deuoured those precious pearles. And to speake a truth, it is hard to judge whether of them twaine plaied the beast more, the father or the sonne. But that it seemeth lesse pride and prodigalitie to swallow down the throat the greatest riches of Nature, than to chew and eat at a supper mens tongues, that is to say, those birds that could pronounce our language.

* i 600000 Sester-
tertij,
150000 den-
arij.

THE generation of birds scemes alwaies to be after one & the same manner. And yet therein is to be found some strange & extraordinarie worke. Like as there be four footed beasts known also to haue egges, namely, the *Chamaeleons*, *Lizards*, and such as we named among Serpents. Of foules, those that haue hooked claws and tallons, are but barren that way, and lay few egges. Only the *Kestrell* laieth foure at a time. And verily Nature hath well provided in all the kind of foules, That the mightier should be lesse fruitfull than the weaker and those that flie from the other. The *Ostriches*, *Hens*, *Partridges*, and *Linnetts*, are great laiers. As touching the

the manner of their engendering, it is performed two waies: for either the female coucheth G
downe, as doe our hens; or else stand vpon their feet, as doe the cranes. Of eggs, some be white,
as those of Doves and Partridges; others, be pale and yellowish, as those of water-fowle: some
be spotted, as those of the Turkie-hens: others againe red; and such eggs Feasants lay, and Ke-
strils.

All birds eggs within the shell, are of two colours. In water-fowles, the yolke is more than
the white, and the same is more wan and dusky than in others. The eggs of fishes are of one
colour, and therein is no white at all. Birds eggs are brittle shelled, by reason of their heat. Ser-
pents eggs are more tough because of cold: but they of fishes are more soft and tender, for that
they be so liquid. Those of fishes and such creatures as liue in water, haue round eggs ordinari-
ly: others be long and pointed at one end in the top. Birds lay their eggs with the rounder end H
den by piccemeale as they come forth. *Horatius Flaccus* is of opinion, that the longer the egge
is, the better tast it hath. The rounder egge prooues to be the hen commonly, the rest will be
cocks. There is found in the * top or sharper end of an egge within the shell, a certaine round
knot resembling a drop or a naui, rising about the rest, which they call a Kinning.

CHAP. LIII.

¶ The engendering of eggs: the sitting of birds: and their manner
of generation.

SOME birds there be, that tread all times of the yeare; and lay eggs but only two moneths in
mid winter: and of those, pullers lay more than old hens, but they be lesse, especially the first
and last of one laiter. So fruitfull they be, that some of them wil lay threecore eggs ere they
giue ouer: some euerie day; others, twice in one day: and some will ouer-lay, vntill they be so
weary and feeble withall, that they will neuer lay more, but die withall. The little short legged
grig hens, called Hadriana (that came from Hadria) are counted best. Doves lay & conuey ten
times in the yeare, some of them eleuen: and in Egypt there are found that giue not ouer in the
twelue months, euen at mid-winter in December. Swallowes, Oufels, Quois or Ringdoves and
Turtles, lay and sit twice in the yeare: other birds ordinarily but once. Thrushes and Blackbirds K
build their nests of mud and clay, in trees and bushes one by another, so neere as if they were
linked together: and lightly they engender in some corner out of the way. After the hen is tro-
den, within ten daies the eggs commonly knit within her bellie, are come to perfection & readie
to be laid. Howbeit if hens haue some wrong done vnto them, or if a man chance to pluck a fea-
ther or quill from a pigeon at that time, or do them some such iniurie, it will be longer ere they
lay.

All eggs haue within them in the mids of the yolk, a certaine drop as it were of bloud, which
some thinke to be the heart of the chicken, imagining that, to be the first that in euerie bodie
is formed and made: and certainly a man shall see it within the verie egge to pant and leape. As
for the chick, it taketh the corporall substance, and the bodie of it is made of the white waterish L
liquor in the egge, the yellow yolke serues for nourishment: whiles the chick is unhatched and
within the egge, the head is bigger than all the bodie besides: and the eies that be compact and
thrust together, be more than the verie head. As the chick within growes bigger, the white tur-
neth into the midst, and is enclosed within the yolke. By the 20 day (if the eggs be stirred) ye
shall heare the chick to peepe within the verie shell: from that time forward, it beginneth to
plume and gather feathers: and in this manner lies it within the shell, the head resting on the
right foot, and the same head vnder the right wing, and so the yolke by little and little decrea-
seth and faileth. All birds are hatched with the feet forward, contrarie to other creatures. Some
hens there be, that lay all their eggs with two yolkes; and of them be hatched two chickens O
therwhiles, as *Cornelius Celsus* writeth, but the one of them is bigger than the other. Howbeit, o-
thers say, it is impossible that one egge should come to two chickens. Moreover, it is held for a
rule, that there should not be put vnder a brood-hen about 25 eggs at one time to sit vpon. Af-
ter the mid-winter, hens begin to lay and sit. The best brood is before the spring Equinoctiall.
Those that be hatched after mid-summer, neuer come to their full and kind bignesse: and euer,
more the later the lesse.

CHAP.

CHAP. LIV.

¶ The infirmities and impediments incident to brood hens,
and the remedies.

THE best eggs that can be put vnder hens when they sit, are they that were laid ten daies be-
fore at the utmost; for neither old eggs, nor yet very new laid are good for that purpose.

After that a hen hath sitten 4 daies, take an egg from vnder her, hold it in one hand by the
narrow end, and look between you and the light, with the other ouer it; if it be cleare through
and of one colour, it is supposed to be naught, and will neuer proue a chicke, and therefore put
another in place thereof. Another experiment there is by water: the addle egg will flote aboue
B as empty, the sound and good will sinke to the bottom: and such therefore being full are to be
set vnder the hen. We ye would try whether an egg be good or bad in this case, our countrey
wiues say, you must not shake them in any hand, for if the vital veins & parts be broken & blen-
ded together, they will neuer proue. Moreover, this is alwaies to be looked vnto, that ye begin
to set an hen after the change of the moon, for if you set her in the wain, the eggs will be addle,
and neuer come to be chickens. The warmer the weather is, the sooner will she hatch, & there-
fore it falleth out, that in summer ye shall haue her abroad with her brood vpon the nineteenth
day; in winter many times it will be 25 daies first. If it thunder while she is broody the eggs
will be addle, yea and if the hen chance but to heare an hawke cry they will be marred. The
remedie against thunder, is to put an iron nail vnder the straw of the hens nest, or els some earth
C newly turned vp with the plow.ouer and besides, there be some eggs that will come to be birds
without sitting of the hen, euen by the worke of Nature only, as a man may see the experience
in the dunghills of Egypt. There goeth a pretty yeast of a notable drunkard of Syracusa, whose
manner was when hee went into the Tauerne to drinke, to lay certaine eggs in the earth, and
couer them with mould, and he would not rise nor giue ouer bibbing vntill they were hatched:
To conclude, a man or woman may hatch eggs with the very heate only of their body.

CHAP. LV.

¶ The Auguries and presages of Eggs.

Livia Augusta the Emperesse, wife sometime of Nero, when she was conceived by him, & went
with that child [who afterwards proued to be *Tiberius Caesar*] being very desirous (like a
yong fine lady as she was) to haue a jolly boy, practised this girlish experiment to fore-
know what she should haue in the end: she tooke an egge, and euer carried it about her in her
warne bosome; and if at any time she had occasion to lay it away, she would conuey it close-
ly out of her owne warme lap into her nurfes, for feare it should chill. And verily this presage
proued true, the egge became a cocke chicken, and she was deliuered of a sonne. And hereof it
may well be came the deuice of late, to lay eggs in some warme place, and to make a soft fire
vnderneath of small straw or light chaffe to giue a kinde of moderate heate: but euermore the
E eggs must be turned with a mans or womans hand, both night and day; and so at the set time
they looked for chickens and had them. It is reported besides of a certaine Poulter, who had a
secret by himselfe, whereby he could tell surely and neuer misse, which egge would be a cocke
chicke, which a hen: also of many hennes that he kept, which was euerie hens egge, if hee did
but see it. We haue heard moreover, that when a brood hen chanced to die, the cocks that vsed
to tread her, were seen to go about with the chickens one after another by turnes, and to doe eue-
rie thing like to the very hen indeed that hatched them: and all that while to forbear once to
crow. But about all it is sport alone to see the maner of an hen that hath sitten vpon ducks eggs
and hatched them, how at the first she will wonder to haue a teem of ducklings about her, and
F not acknowledge them for her owne; but soone after shee will clucke and call this doubtfull
brood to her very carefully and diligently: but at the last, when she perceiues them, according
to their kind, to take the water and swim, how she will mourn and lament about the fish-pool,
that it would pittie ones heart to see them what moane they will make:

CHAP:

A Man shall know a good and kindly hen by her comb, when it is strait and vpright: otherwhiles also double crested: also by the pinion feathers blacke, the vpper plume reddish. Such a hen will be red also about her head and bill, and haue an odde toe to her feet, yea and sometime that od one to lie crosse ouerthwart the other foure. In case of sacrifices and religious vse they are not thought good nor allowable that haue becke and feet yellow. For diuine seruice and secret mysteries celebrated in conuert to the goddesse Ops, the black are allowed for good. There is also a dwarfish kind of hens, [i. grig hens] that are extraordinarie little, and yet fruitful, a thing not seen in any other kind of fowle: they lay and misse not, but seldom sit they on any eggs, and if they do it is hurtfull for them.

That which troubleth all the kind of them is a certain distillation of a phlegmaticke humor, which causeth the pip, the most of all between haruest time and vintage. The cure is, to keep them hungry & long fasting: also to let them lie or perch in a smoky place, especially where the fume is made of Bay leaues and the herb Sauin. It is good moreouer, to draw a little quill or feather through their nostrils acrosse, and to remoue or shift it euery day. As for their meat, let it be some cloues of garlicke shred among their corne, or else let their meat bewell infused or steeped in water, wherein an owle hath washed and bathed her selfe; or else sodden with the seed of Bryonie or the wilde white Vine: besides such other medicines as are daily in vse.

Doues haue this propertie by themselves, to bill one another and kisse before they tread. They lay for the most part two eggs. Thus Nature hath disposed, that some should breed often and few: others should hatch many together at once. The Ringdoves or Quoists, and Turtles, ordinarily lay three eggs; and lightly they sit and hatch but twice a yere: and that is, if their first brood come not to perfection, but miscarried and was not reared vp. And albeit they lay three eggs, yet they neuer hatch but twain: the third that is addle, they call in Latine *Vrinum*. The female Ringdove sits euer from noon vntil the next morning; the male makes vp the rest of the day. House-doues breed euermore one cock pigeon, and another hen. The male is hatched to day, and the female tomorrow. In that kind they sit both, the cock all day, and the hen by night: and vually vpon the 20 day they hatch. They lay within fide daies after they be troden, and in summer time verily you shall haue them in the space of two months bring three paire of pigeons; for then they vse to hatch by the 18 day: and presently they conceiue again. So that a man shall oftentimes find new laid eggs euen amongst the young pigeons: and otherwhiles it is seen, that whiles some are ready to fly, others peep newly out of their shel: and these yong birds within fide moneths will lay themselves. Now the nature of these hen doues is (if they want a cock) to tread one another, and hereof they come to lay barren eggs, wherof nothing will be ingendred: and such the Greeks call Hypenemia, i. wind-eggs.

The Pea-hen falls to lay and breed after she is 3 yeres old. In the first yere she begins with one or two eggs: the yere following she riseth to foure or fide: in the rest she reacheth to twelue and no more. When she layeth, her manner is to rest two or three dayes betwene euery egge. And thrice a yere she keepeth this order, namely, if her egges be taken from

A from her, and put vnder hens to be sitten vpon: for why, the Peacocks will break the m if they can meet with them, because they cannot misse and spare the Peahens company while they are broody and sitting: which is the cause they are wont to lay by night, or in some secret corner out of the way, and that from an high place where they perch: and then, vnlesse there be good heed taken that the eggs be latched in some soft bed vnderneath, they are soone broken. One Peacock is sufficient to go with fide wiues: for when there is but twain [the villaine is so lecherous] with ouermuch treading he hindereth their laying, and marreth the knot of eggs ingendred within them. The Peahen hatcheth in 28 daies, or in thirty at the farthest.

B Ganders and Geese ingender together in the very water. Geese lay ordinarily in the spring: or if they were troden about mid-winter, then ye shall haue them lay after the Winter Sunne: stead some forty daies or very neere. They haue vually two laiters in the yere, namely, if hens hatch their former eggs. The most that they hatch at one sitting is sixteene, and the fewest seuen. If a man steale their eggs from them they lay still, and neuer giue ouer till they be readie to burst with laying. No birds eggs but their own will they hatch. The most profitable way, is to set them vpon nine or eleuen. The females only sit, and that for the space of 30 daies, vnlesse it be warme weather, and then they will haue done by 25. If one of their Goslings be stung neuer so little with a nettle, it will die of it. Their owne greedy feeding also is their bane, for one while they will eat vntill they burit again; another whiles kill themselves with straining their own selues: for if they chance to catch hold of a root with their bill, they will bite and pul so hard for to haue it, that many times they breake their owne neckes withall, before they leaue their hold. Against the stinging of nettles the remedie is, that so soone as they be hathed there be some nettle roots laid vnder their nest of straw.

OF Herons be three sorts, * Leucon, * Asterias, * and Pellon: these last ingender with much paine and difficultie; as for the males verily they cry againe for anguish, and the bloud starts out of their eyes in the act of treading. And with as much ado and trouble do the females lay, after they be knit with eg. The Egle and the most part of the greater fowls sit 30 daies, whereas the lesse continue but 20, as the Kite and the Hawk. The Kite vually hatcheth but one at a time, and neuer aboue three: but that kind called *Ægoliος* sometimes foure. The Raucen also now and then fide: and those cooue as many daies. While the female crow sits the male feeds her. The Piot ordinarily brings forth nine Piannets, the fig-pecker *Melanocoryphus* aboue 20, but euermore an od one: and there is not a bird that goeth therein aboue her. Lo how Nature is willing to multiply the race of little birds! The yong Swallows are at the first blind, and so are all such as are hatched many in number. Wind-eggs, which we call Hypenemia, come either by the mutuall treading of hens one another, by an imaginarie conceit of the male, or else by dust. And such eggs not only Doues doe bring, but house Hens also, Partridges, Peahens, Geese, and Brants, or the female Barganders. Now these eggs are barren as it were, and neuer proue birds, lesse than others, not so pleasant in taste, and besides more moist. Some are of opinion that the wind will ingender them, for which cause also they are called Zephyria [i. West-wind eggs.] And verily such eggs are seen only in the spring, when that wind blows. Addle eggs, which some called *Cynofura*, are they that chill vpon the rest, when the hen is gone and giueth ouer sitting. Eggs steeped in strong vineger will come to be so soft, that they will passe and be drawn through the ring of a mans finger. The best way to keepe egges is in beane meale or floure; and during winter in chaffe, but for summer time in bran. It is thought if they lie in salt their substance will waste and consume to nothing within the shell.

The Rere-mouse or Bat alone of all creatures that fly, bringeth forth yong aliue, and none but she of that kind hath wings made of pannicles or thin skins. She is the only bird that suckleth

suckleth her little ones with her paps, and giues them milk: and those she wil carry about her two at once, embracing them as she flieth. It is said also that she hath no more but one ioynt of the hanch, without any in the knee or feet: and that they take greatest delight to feed vpon gnats.

CHAP. LXII.

¶ Of Vipers: their manner of generation and bringing forth yong: and what land beasts do lay egges.

Moreouer, among creatures of the land, serpents lay eggs: whereof as yet we haue not written. As they ingender together they clip and embrace, and so intangled they be and inwrapped one about the other, that a man who saw them would think they were one serpent with two heads. In the very act of generation the male Viper thrusteth his head into the mouth of the female; which she (for the pleasure and delectation that she hath) gnaweth and biteth off. No land creature els but she hath eggs within her belly, of one colour and soft, like as fishes haue. Now after three daies they be quicke, and then come forth as they be hatched, but no more than one at once every day: and so commonly she hath. When she is deliuered of the first, the rest (impatient of so long delay) eat through their dams sides, and kil her. As for other serpents they lay their eggs linked and chained together, and so sit vpon them on the land: but they hatch them not vntill the yeare following. Crocodiles sit by turnes, the male as well as the female. But I thinke it good to treat also of the generation of other land creatures.

CHAP. LXIII.

¶ The generation of liuing creatures vpon the land.

Of all liuing creatures two footed, a woman onely bringeth forth her yong quicke. Men and women both, and none but they, repent at first the losse of their maidenhead. A very presage (no doubt) of a life to ensue full of trouble and miserie, that thus should begin with repentance. All other creatures haue their set times and certain seasons in the yeare when they ingender, as hath bin shewed before: but all is one with vs, and no houre of day or night comes amisse. Other creatures know when they haue enough, and rest satisfied: we only are insatiable that way, and cannot see to make an end. The Empreffe *Messalina*, wife of *Claudius Caesar*, thinking it the only victorie for a lady and queen to excell in this feat, chose the most gallant curtisan and commonest strumpet in all Rome, to try masteries and to contend with for the best game: and in very truth she won the prize; for in the space of 24 houres she out-went her [a beastly thing to be written] no fewer than 25 times. As for men, they haue deuised in the practise of this filthy act, euen to abuse some parts against kind: and women (vnnatural as they be) haue the cast to destroy within them the vnripe and vntimely fruit of their own body. Certes in this behalfe how much worse are we than the wild and sauage beasts of the field. *Hesiod* writeth, that men are more giuen to lust in winter than in summer, and women contrariwise. Elephants, Camels, Tigers, Onces, Rhinoceros, Lions, Hares, Conies, and generally all beasts which haue their genitall parts from-ward, turn taile to taile to the female in the act of generation. As for Camels, they go into the desert, or at lestwife seeke some corner when they would ingender; and dangerous it is for one to take them in the maner. They continue in this action one whole day together, and so do none els that are whole hoofed. In foure footed beasts the males are set into the heat of lust by senting and smelling. Dogs and Birches, Seales & wolues likewise turn away, and in the mids of the action be tied one to another euen against their wils, and cannot help it. The females of most of these before named begin to ride the males first, for to prouoke their lust: but of the rest, the males leap the females at the first. Beares (as we sayd before) lie along both as man and woman. Hedge-hogs stand both vpright, and claspe one another when they ingender. The he Cat standeth on his feet, and the she lieth vnder him. Foxes ly vpon their sides, and so the Bitch embraceth the male Fox. Kine and Hindes cannot well endure the violence of the Bulls and the Stagges in this businesse, and therefore they are euer going when they doe engender. Stagges goe from one Hinde to another, and then come againe to the first; and this doe they in course. Lizards, as all other creeping creatures that haue no feet, wind one about another as they ingender. The greater that any beasts be, the lesse

fruitfull

fruitfull they are of their bodie. Elephants, Camels, and Horses, get but one at once, neither do the females beare any more at a time: whereas the Goldfinch or Linnet, a verie little bird, bringeth forth a dozen commonly at once. Such as bring most, are least while in breeding. The greater that any creature is, the longer time it requireth to be formed in the mothers wombe. And such as liue long, be longer also ere they haue their perfection and come abroad into the world. The growing age is not meet for generation. Beasts that are whole hoofed, neuer bring but one at a time: such as be clouen footed in twaine, may also haue twins. But as many as haue their feet parted and deuided into many toes, are fit to beare many at ones. And whereas all the former rehearsed, bring forth perfect creatures with all parts, some haue their young ones imperfect and but halfe made: in which number Lionesses, she Beares, bitch Foxes, are to bee reckoned: but especially the shee Beares, whose whelpes are more vnshapen than the rest: and a rare thing it is to see them a whelping. Howbeit such females when they be deliuered of them, with their licking do chafe and heat them, and so by little and little bring them to some forme and fashion by this meanes. Such for the most part beare foure whelpes. As for bitches, Wolues, Panthers, and Thoes, kindle their young before they can see.

Of Dogges and Bitches there be many kinds. They of **Laconia*, as well the male as the female, be apt to engender after they be eight months old. They be with whelp threescor daies and three ordinarily. As for other Bitches, they goe proud at fixe moneths, and may be lined. They be all the sort of them, sped at the first lining. Bitches that go assaut and take the dog before the full time, namely when they be verie young, such bring a litter that will be longer ere they see: neither goe they but all the whelpes will not be blind so many daies. Dogs commonly when they be halfe yeare old, are thought to lift vp their leg when they pisse; and that is a signe they are come to their full strength and perfection: but bitches all that time pisse sitting vpon their buttocks. They haue twelue whelpes when they bring most, but ye shall see them commonly with a litter of six or siue: and sometime they come with just one, but that it is thought to be a prodigious signe; as also if the whelpes be all Dogges or all Bitches. The first vially that they whelp, be Dogs; for the rest, they be one with another, a Dog and a Bitch: namely, if they were lined in the due season, and at the just moneth. And commonly they goe proud fixe moneths after their former litter. The Bitches of *Laconia* ordinarily bring eight at a time. The Dogs of this race haue a proprietie with them, that the more they be trauiled, the more lustie and fresh they are, yea and the hotter after salt-bitches. They liue ten yeares, and the Bitches twelue. Of other kinds, ye shall haue them continue fifteen yeares, yea and otherwhiles twentie: but they engender not so long, but giue ouer commonly at twelue.

Cats and Rats of Inde, called *Ichneumon*es, in all other respects follow the Nature of Dogs, saue that they liue but six yeares. Conies kindle euery moneth: and albeit they be bagged, yet will they take the bucke againe, and conceiue vpon it; like as the Hares also will doe the same: for as soon as euer they haue kindled, they go to bucke and are presently sped; and say that the Leuerets or Rabbets lie sucking at them yet wil they be with yong. When they be new kindled, they cannot see.

Elephants (as we haue already said) neuer bring but one at once, and that commonly is as big as a Calse a quarter old. Camels goe a whole yeare. After they be 3 yeares old, they are sufficient for to engender: and commonly they come in the spring: and it is a yeare after before they be couered againe. As for Mares, if there be three daies betwene, or but one, after they haue soled, it is thought they may very well be couered againe; yea and they are brought perforce to the stallion for this purpose. It is supposed also, that the shee Ass within feuen daies after, will soonest conceiue. It is a rule, to share and clip a Mares maine, before shee will abide the couering of an Ass, so vile and base a beast: for so long as the haire of her maine is well growne, she is so proud and glorious, that she will not abide the Ass to come neare her. So soone as they be couered and sped, they run full into the South or North-wind, according as they be conceiued either with male or female: a thing that no other beasts besides, doth. And then, suddainly they change their colour; for their haire will be redder, or at leastwise fuller and deeper, what colour soeuer it be. By which signe it is knowne they are with sole, and then they will admit no stallions vnto them, would they neuer so faine. And say, that some of them haue soles running by their sides, they will doe their deed at worke neuertheless: nay when they be with sole, they will labour as well as they did before: in so much, as many times they

D d 2

seale

* Resembling our English mastiues.

steale a faling, before their master beware that they are with sole. We haue read in Chronicles, that *Echeeratides* the Thessalian had a Mare, which euen then when she was gone far with sole, woone the best game in the Olympian race. They that haue sought more narrowly into the secrets of Nature, say, That stone-Horses, Dogs, and Bores, desire the females in a morning: but Mares, Bitches, and Sowes make meanes to the male after noone. Mares that are kept within house at rack and manger with hay and prouender, desire to be couered three score daies before those that goe abroad in the heard. Swine alone of all creatures when they be brimming, froth and some at the mouth. And as for the Bore, if he heare the grunting of a Sow that seekes to be brimmed, vnlesse he may come to her, will forsake his meat, vntill he be leane and poore: and she againe will be so far enraged, that shee will be readie to run vpon a man and all to teare him, especially if his cloths be white. But this rage and woodnesse of hers is asswaged and allayed, only with bathing her share behind with vineger. Some thinke there be certaine meats will prouoke beasts to fleshly lust, namely, Onions giuen in meat to a be. st; like as Rocket to a man or woman. Moreouer, it is supposed, that whatsoeuer is made tame which by kind was wild, the same will not breed, as Geese and Ganders. In like manner, wild Swine & red Deere, if they be tamed; or if they doe, it is very long first: and such only as were brought to hand euen from the time that they were very yong. Finally, this one thing is strange and wonderfull, that all foure-footed beasts, saue only the Mare and the Sow, if they find themselues to be with yong, driue the male from them. But the Connie and the Hare alone will conceiue again when they be gone with yong.

CHAP. LXIII.

¶ *The varietie in liuing creatures, as touching their comming into the world.*

W hatsoeuer haue quicke creatures within them, bring the same forth with the head forward. For when the time is come, the yong thing turns about a little before, which otherwise lay freight out at length in the bellie. Four-footed beasts, whiles their dams go with them, lie with their legs stretched along, close vnto their own bellies. An infant whiles it is in the mothers wombe, gathereth round into a ball, and hath his nose lying just betweene his two knees. As for false conceptions or Moone-calues (whereof we spake before) some thinke they are engendred of the womans seed only: namely, when she is not conceiued by a man, but by her selfe: and hereupon it is, that the said conception hath no vitall nor animall life, because it proceeds not of the conjunction of male and female both. True it is, that it is endued with a certain vegetatiue power, to be nourished and to grow, like as we see intrees and many other plants.

CHAP. LXV.

¶ *The breed of Mice and Rats.*

O f all creatures that bring forth their young perfect, Swine only farrow one Pig and two Pigs at a time, yea, and sometimes a number of them. Also they alone contrarie to the nature of all those that either be whole-hoofed, or clouen-footed in twaine, bring a number of yong ones at one farrow. But about all, Mice and Rats for fruitfulness do passe. And therefore I cannot put off the discourse of them any longer: and yet therein I must follow *Aristotle* for mine Author, and the report withall of the souldiers that serued vnder *Alexander* the great. It is said that they engender by licking, without any other kind of copulation: and that one of them hath brought six-score at a time: also that in Persia there haue been young Mice found with yong, euen in the bellie of the old dam. And some are of opinion, that they will be bagged, if they tast but of a little salt. Why should wee then wonder any more how such multitudes of field-Mice and Rats should come to deuour whole fields of corne? Howbeit, the reason is not yet known, how such numbers of them should al of a sudden consume away & come to nothing. For neither bee they found lying dead about ground, neither can any man come forth and say, that he hath turned vp any one with his spade as he digged in the Winter. The country of Troas is mightily giuen to breed great store of them, inso much, as they haue forced already the inhabitants to abandon the place and depart. Men say, that the season proper

A and agreeable for their breeding in such abundance, is a great drought: also, that when they are toward their end, there be little wormes breeding in their heads that kill them. The Mice and Rats of Egypt haue hard haire and prickly like to hedge-hogs. They go likewise vpright on their hinder feet, and walk as if they were two footed, after the manner of those in the Alps. Moreouer, if beasts of diuers kinds ingender together, they may wel breed yong between them; in case they do agree and jump in the time that the females of both should go with yong. It is commonly thought and beleueed, that among foure footed beasts the Lizard hath eggs within her, and deliuereth them at her mouth; but *Aristotle* flatly denieth it. Howbeit they sit not vpon them when they haue so done, as being forgetful where they laid them, so little or no memorie at all haue they. And therefore the yong Lizards of themselves breake forth out of the shell.

CHAP. LXVI.

¶ *Of a Serpent ingendred of the marrow of a mans back bone.*

I Haue heard many a man say, that the marrow of a mans backe bone will breed to a Snake: And well it may so be, for surely there be many secrets in Nature to vs vnknown, and much may come of hidden causes, as we may see euen among foure footed beasts.

CHAP. LXVII.

¶ *Of the Salamander.*

C AS for example, the Salamander made in fashion of a Lizard, marked with spots like stars; neuer comes abroad and sheweth it selfe but in great shewres: for in faire weather he is not seen. He is of so cold a complexion, that if he do but touch the fire, he wil quench it as presently as if ice were put vnto it. The Salamander casteth vp at the mouth a certaine venomous matter like milke, let it but once touch any bare part of a man or womans body, all the haire will fall off, and the part so touched will change the colour of the skinne to the white morpew.

CHAP. LXVIII.

¶ *Of those that breed of others which neuer were ingendred. Also of those that being ingendred, yet breed not.*

S Ome creatures there be that breed of those that neuer were ingendred themselves; and yet not according to those naturall means as others which wee haue shewed before; and such also as either the Summer or Spring, or some certain season of the yeare do breed. Among which some ingender not at all, as the Salamander: * for there is no more distinction of sex in them, than in Yeeles, and in all those which neither lay eggs, ne yet bring forth any liuing creature. Oysters likewise and all such creatures as cleaue fast either to rockes or to the shelues, are neither male nor female. As for such as come of themselves, if there be seene in them any distinction of male and female, something verily they ingender betweene them; but an imperfect creature verily it is, and not resembling them: neither doth that generation breed ought any more, as we see the flies that ingender certain little wormes. The experience hereof is better to be obserued in those creatures called Insects: whose nature is hard to be expressed, and yet I haue appointed a seuerall treatise for them apart. Wherefore I will go forward in the discourse begun already, and namely as touching the sence and vnderstanding of the forenamed Creatures, and then proceed to the rest.

* Which is found vntue by experience.

CHAP. LXIX.

¶ *The outward senses of liuing Creatures.*

M An excelleth all other Creatures, first in the sence of feeling, and then of tasting: In the rest many beasts go beyond him. For the Eagles haue a clearer eie-sight, the Geires a finer smell; and the Moldwarps, notwithstanding they be couered ouer with earth (so heauie,

heauie, so thick and deafe an element as it is) yet their eare is far better than ours. Moreover, albeit the voice of all them that speake aboue ground doth ascend vpwrd still from them, yet heare they when they talke, yea and if a man chance to speake of them, some hold that they vnderstand their speech, and thereupon do fly from them. A man, who at first lacketh his hearing, wanteth also the vse of his tongue: neither are there any deafe borne, but the same likewise be dumbe. A man would not think, neither is it likely, that the Oysters in the sea do heare, and yet vpon any noife and found their manner is to sink down to the bottome. And therefore when as men do fish for them in the sea they are as silent as they may be.

CHAP. LXX.

¶ *A discourse, That fishes both heare and also smell.*

Fishes verily haue no eares, ne yet any holes to serue for hearing; and yet plain it is that they doe heare, as we may daily see in certaine fish ponds and stewes where fishes be kept: for when those that haue the charge of them make a noife with clapping of their hands, as if they be otherwise, they shall haue them come in great flocks to take their meat that is thrown in to them: and this are they wont to do daily: and that which more is, in *Casars* Fish-pooles a man may see whole skuls of fishes to repaire at their call: yea, and some wil part from the rest of their company, and come alone to land when they be named. Hereupon it is, that the Mullet, sea-Pike, Stock-fish, and *Chronius*, are thought to heare best of all others, and therefore liue very ebbe among the shelues and shallowes. That fishes haue the sense of smelling it is manifest: for they are not all taken ne yet delighted with one kinde of bait: and this is obserued, that before they bite they will smel to it. Some also there be that lie in holes vnder rocks, and no sooner hath the fisher besmeared and anointed the mouth and sides of the said rocks in the very entrance to their holes, but he shall see them come forth, as it were to auoid the sent of their own carion. Let them lie in the very deep, yet wil they resort to certain odors and smells, namely, to the Cuttill burnt, and the Polype, which for that purpose they vse to put into their nests. And verily they cannot abide the smel of the sinke and pumpe of a ship, neither wil they come neere vnto it: but aboue all things they may not away with the bloud of fish. The Pourcuttle hardly or not at all can be pulled from the rocks, so fast cleaueth he: howbeit come neer him with the herb Marjerome or Savorie, he will presently leape from the rocke and away, to auoid the sent thereof. Purples also be caught by means of some stinking bait. And for other creatures, who doubteth but they haue a perfect smell? Serpents are chased away with the smell and perfume of the Harts horn; but aboue all, with the odor of *Styrax*. And Pismires are killed with the very fume of *Origon*, *Quick-lime*, or *Brimstone*. Gnats loue all four things, and willingly will thither: but to any sweet meats they come not neare.

CHAP. LXXI.

¶ *That the sense of feeling is common to all liuing creatures.*

There is not a liuing creature throughout the world but hath the sense of feeling, though it haue none els: for euen oysters and earth-wormes, if a man touch them doe evidently feelee. I would think also that there is none but tasteth as well as feeles. For what should the reason else be, that some desire to tast this, others that? And verily herein is seene aboue all the singular workmanship of Nature, in the frame of their bodies and the members thereof. Some ye shall haue to seise vpon their prey with their teeth, others snatch it with their talons and claws: some peck and pluck it with their hook bills, others pudder into their food with their broad nebs. Some with the sharp point of their beaks worke holes into their meat; others lie sucking at it. Some lick, others sup in: to conclude, some chew, others swallow and deuoure whole as it is. As touching their feet, there is no lesse varietie in the vse thereof: in snatching and carrying away, in tearing and plucking a pieces, in holding fast, and in crushing their prey. Some ye shall haue to hang by their feet, and others neuer lin scraping and scratching the earth.

CHAP.

CHAP. LXXII.

¶ *What creatures liue of poison, and what of earth.*

Of Bucks and Does, yea, and Quails (as we haue said before) will feed fat with poisons, and yet they are the most meeke and gentle creatures liuing. Serpents haue a great desire and loue to eggs, wherein the subtilty of Dragons is worthy to be considered. For either they swallow them downe whole (if their throat will receiue them) and alter they will pierce their body, breake and squeeze them in pieces with rolling and winding them betwixt their hands, and then cast vp the shels againe: or if they be but young ones yet, and not able to do so, they will gobble vp whole eggs, then they will winde about an egge with their taile by little and little, till they bind it so hard, that they wil cut off the crowne of it, as it were with a knife, and then sup on the rest which they clasp and hold fast between. In like manner deale they with birds. For swallow they will them whole downe the gullet, and afterwards straine and struggle so with themselves vntill they disgorge again the feathers and bones that were in their bellies.

Scorpions feed vpon earth. And Serpents againe, if they may come handfomly to wine, will make means to drink their fill of it, howsoeuer otherwise they haue but little need of any drink. They eat no meat at all, or very little, when they be kept close within any thing: like as the spiders also, which otherwise naturally liue by sucking. And therefore you shall not lightly see any venomous creature die either of hunger or thirst. For neither haue they store of heat, nor plenty of bloud, ne yet of sweate: all which naturally prouoke a stomack, & giue an edge to appetite. And among these venomous creatures, those be euer more dangerous which haue eaten some of their own kind, before they bite or sting. Apes, Monkeys, and Marmosets bestow and treasure vp the meat that is giuen them, or that they can come by, within their cheeks, as in a store-house. And when they be hungry, they get the same forth by little and little with their hands, & so sal to chew it. Thus practise they in making their provision, for to serue them from day to day, and from one houre to another: which Pismires vsually do from yeare to yeare.

CHAP. LXXIII.

¶ *The meat and drinke of some creatures.*

Of all liuing creatures that haue many toes in their feet, the Hare alone feeds vpon grasse and Greene corne in the blade. As for those that be whole hoofed, they liue both of the blade, and also of the fruit thereof. Also of such as be clouen footed, Swine will eat all kind of food, yea, and liue of very roots. It is the property of whole hoofed beasts alone, to wallow and tum ouer and ouer. All that haue teeth indented in like saws, be naturally deuourers of flesh. Bears wil feed of corn, brouse trees, eat grapes, liue of apples and other fruits, feed vpon bees, crefishes, and pismires. Wolves (as we said before) if they be very hungry, eat earth: sheep feed the better & grow fat, if they may drinke; and therefore salt is very good for them, because it makes them thirst. Draught beasts, and such as are vsed for carriage, albeit they liue of corne and grasse, yet according to their drinking they do feed. Besides those mentioned hertofore, of wild beasts the red and fallow Deere both doe chew cud when they be made tame and fed by hand: but all chuse rather in so doing, to lie than to stand, & in winter more than in summer, for seven months ordinarily. The rats and mice in the country of Pontus, namely, Hermins, & such like, after the same maner do chew cud and go ouer their meat again. What beasts soeuer are toothed like saw teeth, lap as they drinke. So do also our common mice and rats, although they be of another kind, and are not so toothed. They that haue broad teeth, plaine, and vniforme, as horses and kine, drinke supping and taking their ful draught. Bears in their drinking do neither the one nor the other, but bite at the water and so let it down. In Affrick the more part of wild beasts drink not all summer long, for want of raine water: which is the cause that the Rats and Mice of Ginnie which be taken, if they drink afterwards vpon so long disuse, die therewith. In the deserts of Affrick, where there is no water euer to be had, there is ingendred a certain wilde goat named Oryx, which as by the nature of the place it wanteth drink, so it hath in her bodie a foucraim and singular remedy against draught and thirst. Which the common theues & robbers by the highway side in Getulia, knowing well enough, endure a long time with the helpe thereof.

thereof without drinke, for they vse to stanch and quench their own thirst, with a certain moist holefome liquour found in the bladders of the said beast. In the same Affricke the Leopards lie in await among the thickets of trees, hidden within the branches; and so seize vpon them that passe by, and make spoile euen from the place where fouls vse to perch. As for Cats, marke I pray you how silent they be, how soft they tread when they steale vpon the silly birds: how secret lie they in espiall for the poore little mice to leap vpon them. Their owne doung and excrements they will rake vp and hide in the earth, knowing full well, that the smell thereof will bewray where they are.

CHAP. LXXIII.

¶ What beasts accord together, and which they be that disagree one from another.

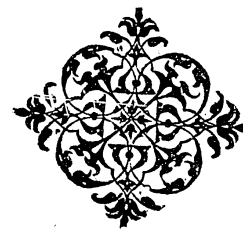
Besides these outward fences abouenamed, euident it is also, that brute beasts haue other instincts of nature. For they entertain friendship and enmity one with another (which cannot be without affection and passion) ouer and besides those other wars and amities which wee haue obserued in their seuerall places. Swans and Eagles jar and war one with another: to doth the Rauens and the Wirwall or Lorient, which seeke after one anothers eggs in the night. Likewise the Rauens and Kite: for the Rauens is euermore ready to catch the Kites meat from him. Crows and Owles are at mortall feud one with another. The roiall Eagle hateth the Wren, and why? because (if we may beleue it) he is named Regulus (i. the pettie king.) Howlets also cannot agree with other little birds. Again, foules make warre with foure-footed beasts. The Weasell and the Crow be at deadly debate. The Turtle with the Creckir (Pylalis) that liueth about the fire. The Ichneumons with Wasps: the Phalangia with other Spiders. And among water foules, Ducks and Drakes with the sea-gulls. The Seamews with the Buzzard. Triorchis. As for the field Rats or Mice, and the dwarf-Herons, they seeke to prey one vpon the others little ones. The bird Aegithus (the least in maner of all others) waiteth the Asse a shrewd turn; for when he rubbeth himself against the bushes to scratch where it itcheth, he therewith breaketh and ouerthroweth her nest; and therefore this silly bird is so much afraid of the Asse, that if she heare him but bray, she is ready to throw the eggs out of her nest, and those that be already hatched, will for very feare fall downe: then in reuenge of this wrong, she will flie vpon him, and with her bill peck where the skin is off and raw with rubbing, yea, and make holes euen to the very bone. Morcouer, Foxes and the Yeeles of Nilus cannot abide one another, but are in continuall war. So be Wezils and Swine. There is an vnhappy bird called Aesalon, and but little withall; yet will she squash and breake the Rauens eggs. And when she hath yong ones, they be much troubled and annoied with Foxes: she again to be quit with them, will all to pinch & nip both the Fox and her cubs. The Rauens seeing that, come to aid (as it were) against a common enemy. The Gold-finch liueth among bushes and thorns, and therefore she also hates the Asse, because he eateth vp the floures that grow therupon. The bird Aegithus, so far hateth another called Anthus, that men are verily perswaded the bloud of them both will not mingle together: and hereupon it is, that the sorcerers and witches haue brought it into an ill name. The Thoes and the Lions do foully jarre and disagree. In summe, the least creatures as well as the biggest quarrell and fight one with another. Rats and field Mice cannot abide to come neere a tree that is full of Ant-nests. The Spider espying a Serpent lying along vnder the shade of a tree where she spinneth, slideth down vpon a fine thred to the head of the Serpent, and stingeth him so deep into the braine, that he falleth a hissing and grinding his teeth: he keepeth a winding and turning about, but hath not the power to breake the thred that hangeth aboue, ne yet to fly from the Spider: insomuch, as the Serpent lieth there dead in the place. Contrariwise, Peacocks and Houfe-doues be as friendly one to another: so be the Turtles and Popinjaies, the Merles and Turtles likewise. The Crow and the lesse Bittours also: for they ioine and band together against the common enemy the Fox. Likewise, the bird-Harpe and the Kite against the Buzzard. What will ye say? be there not tokens of affection euen in Serpents, the cruellest and fellest creatures of all others in the world? I haue written already of the report or tale that goeth in Arcadia of a man, whose life was saved by a Dragon (that was brought vp by him) so soon as euer he knew him by his voice. As for the Aspis, Philarchus telleth a strange history of it.

A it. For he writeth, that in Aegypt there was an Aspis vsed ordinarily to come to the table of a certaine Egyptian, and there tooke meat at his hand: which Serpent afterwards had yong ones, whereof one chanced to sting a son of the master of the house, that he died of it. Now when the dam (the old Aspis) came accordingly at the accustomed houre of repast for victuals, and perceived the deed committed by her little one; not onely killed it in satisfaction of the former fact, but also forbore the house, and was neuer knowne to repaire thither againe.

CHAP. LXXV.

¶ The sleepe of liuing creatures.

The question, Whether liuing creatures sleep or no? is not very difficult, but soon decided: For plain it is, that of land creatures, all that winke and close their eyes doe sleepe. As for those in the water, that they also sleepe (though but a little) euen they are of opinion who otherwise make doubt of the rest. And this they do not collect & gather by their eyes (for lids they haue none to shut) but because they are seene to lie so still and quiet, as fast and sound asleep, stirring no part, but a little wagging their tailles, and seeming to start and bee affright at any sudden noise made in the water. As for the Tunnies, we may auouch more confidently of their repose: for they come of purpose to sleep vnder the banks or rocks. And flat broad fishes lie so still sleeping among the shelues, that oftentimes a man may take them vp with his hand. The Dolphins and Whales be heard to rout and snort again, they sleepe so soundly. Moreouer, as touching Insects, no man need to doubt that they sleep, so quietly do they lie and make no noise: nay, if you bring a candle or other light, and set it euen before their eyes; you shall not haue them to awake nor moue. An infant after it is borne, sleepeth for certaine moneths at the first, and in manner doth nothing els. But the elder hee waxeth, wakefull is he every day more than other. Babes at the very beginning do dreame. For they will waken and start suddenly in a fright; and as they lie asleep, keep a sucking of their lips, as if it were at the breast heads. Some neuer dream at all. And if such chance contrary to this custome, for to dreame once, it hath bin counted for a signe of death, as we haue seene and proued by many examples and experiments. And here in this place there offereth it selfe a great question, and very disputable *pro & contra*, grounded vpon many experiments of both sides: namely, whether the soule of man while the body is at rest, foreseeeth things to come? and how it should so do? or whether this be a thing of meere chance and altogether coniectural, as many others be? And surely if we go by histories, we may find as many of the one side as the other. Howbeit all men in manner agree in this, That dreames either immediatly vpon drinking wine and full stomacke, or els after the first sleep, are vaine and of no effect. As for sleep it is nothing els but a retreat and withdrawing of the soule into the mids of it selfe. Euident it is, that Horses, Dogs, Kine, Oxen, sheep, and goats do dreame. Whereupon it is credibly also thought, that all creatures which bring forth their yong quicke and liuing, do the same. As for those that lay egges, it is not so certaine that they dreame: but resolu'd it is, that they all do sleep. Now let vs passe and proceed to the treatise of Insects.





THE ELEVENTH BOOKE OF THE HISTORIE OF NATVRE, WRITTEN BY C. PLINIVS SECVNDVS.

The Proeme.

It remaineth now to write of those living creatures, which are the most subtil of all others that Nature hath brought forth: for as much as some are of opinion, That they breath not, ne yet haue any blond at all.

CHAP. I.

¶ Of Insects in generall.

Many and sundry sorts there be of Insects, as well among land creatures as those that fly in the aire. Some are winged, as bees: some haue partly wings and partly feet, as Pismires: others want both, and neither flie nor go on their feet. And wel may they all be called *Insecta*: by reason of those cuts and diuisions, which some haue about the necke; others in the breast and belly; the which do go round and part the members of the body, hanging together onely by a little pipe and fistulous conuenance. There be of them, that haue not the body diuided entire, one part from the other by these incisures, cuts, and wrinkles; but they appeare onely either vnder the belly, or vpon the backe aboue, and go no deeper, neither yet round the whole compasse of the body. But a man shall perceiue in them certaine rings or circles, apt to bend and wind to and fro, and those so plaited and plaited one ouer another, that in nothing elswhere is more seen the workmanship of Nature, than in the artificiall composition of these little bodies.

CHAP. II.

¶ The industrie and subtiltie of Nature in framing these Insects.

In bodies of any bignes, or at least wise in those of the greater sort, Nature had no hard piece of work to procreate, forme, and bring all parts to perfection; by reason that the matter whereof they be wrought, is pliable and will follow as she would haue it. But in these so little bodies (nay pricks and specks rather than bodies indeed) how can one comprehend the reason, the power, and the inexplicable perfection that Nature hath therein shewed? How hath she bestowed all the five senses in a Gnat? and yet some there be, lesse creatures than they. But (I say) where hath she made the feat of her eyes to see before it? where hath she set & disposed the tast? where hath she placed and inserted the instrument and organ of smelling? and aboue all, where hath she disposed that dreadful and terrible noise that it maketh, that wonderfull great sound (I say) in proportion of so little a body? can there be deuised a thing more finely & cunningly wrought than the wings set to her body? Marke what long-shanked legs aboue ordinary she hath giuen vnto them. See how she hath set that hungry hollow concauitie in stead of a belly: & hath made the same so thirstie and greedy after bloud, and mans especially. Come to the weapon that it hath to pricke, pierce, and enter through the skinn; how artificially hath shee pointed and sharpened it? and being so little as it is (as hardly the fineness thereof cannot be seen) yet as if it were of bignesse & capacity answerable, framed it she hath most cunningly for a twofold vse: to wit, most sharpe pointed, to pricke and enter; and withall, hollow like a pipe for to sucke in and

Plinies Naturall History.

A and conuey the bloud through it. Come to the Wood-worme, what manner of teeth hath Nature giuen it, to bore holes and eat into the very heart of hard Oke; who heareth not the sound that she makes while she is at her work? For in wood and timber is in manner all her feeding. We make a wonder at the monstrous and mighty shoulders of Elephants, able to carry turrets vpon them. We maruell at the strong and stiffe necks of buls, and to see how terribly they will take vp things and toss them aloft into the aire with their hornes. We keepe a wondering at the rauening of Tygres, and in the shag manes of Lions: and yet in comparison of these Insects there is nothing wherein Nature and her whole power is more seene, neither sheweth she her might more than in the least creatures of all. I would request therefore the Readers, that in perusing this treatise, they will not come with a preiudicate opinion, nor (because many of these silly flies and wormes be contemptible in their eyes) disdain, loath, and contemne the reports that I shall make thereof; seeing there is nothing either in Natures workes that may seeme superfluous, or in her order vnworthy our speculation.

CHAP. III.

¶ Whether Insects do breath, and whether they haue bloud or no?

Diuers haue denied that they breath at all; and vpon this reason they ground their position: Because they haue no arterie or wind-pipe annexed or reaching to any instrument within of respiration. And they be of opinion, that they liue indeed as plants, herbes, and trees: howbeit (say they) there is a great difference betweene hauing life, and drawing wind or vitall breath. And by the same rule they affirme, that they haue no bloud, which is in none that bee without heart and liuer. Neither do any things breath which want lungs. And from hence arise a world of other questions thereupon depending. For the same men deny flatly, that these creatures haue any voice: notwithstanding so great humming of bees, & singing sound of grasshoppers, and such other, whereof we will consider in due time & place, accordingly. Verily for mine owne part, the more I looke into Natures workes, the sooner am I induced to beleue of her euen those things that seem incredible. Neither do I see any inconvenience to thinke, that these Insects may as well draw wind and breath without lungs, as liue without such noble and principall parts as are requisite for life in other creatures: according as we haue already shewed in the discourse of fishes and such like, that liue in the sea; how soeuer the quantitie, depth, and heights of the water, may seeme to impeach and stop their breath. For who would easily beleue, that some creatures should flie at libertie, and liuing as they do in the mids of wind and aire, yet want wind and breath themselves? that they should haue a sense and care to seek their liuing, to engender, to worke, and to forecast for the time to come: and howbeit they haue no distinct members, to carry (as it were in a ship) their seuerall senses, yet that they should heare, smell, and taste, yea and be indued with other singular gifts besides of Nature, to wit, wisdom, courage, skill, and industrie. Indeed, confesse I must, that bloud they haue none: no more haue all creatures that liue vpon the land: howbeit a moist humor they haue, somewhat like vnto bloud, which serues them in stead thereof. Like as in Cuttels of the sea, there is found a certain blacke liquor in stead of bloud: and in all the sort of Purples and such shel fishes, that excellent iuice which staineth & dieth so as it doth. Semblably in these Insects, whatsoeuer humor it is, whereby they liue, the same may well enough go for bloud and so be called: all the while that euery man hath liberty to giue it what name he thinketh fittest. As for me, my purpose is not to judge and determine of these doubtfull quilllets, and their causes; but to set down and shew the nature of such things as be cleare and apparent.

CHAP. IIII.

¶ The substance of the body in these Insects.

These Insects, so far as a man may perceiue, seeme not to haue either sinewes or bones, no chine nor gristle, no far, no flesh, ne yet so much as a tender and brittle shell, as some Sea-fishes haue, nor that which may be truly called a skin; but a certain corporal substance of a middle nature between all these: for their body without, is like a dry thing, and yet more tender and soft than a sinew: whereas in all other parts the matter is to be accounted rather drie than

than hard. This is the very substance whereof they consist, and nothing haue they besides. For within there is nought, vnlesse it be in some very few, who haue a certaine pipe or conduit in stead of a gut, & the same wrapped and infolded together. Which is the cause, that if they be cut in two and pulled in pieces, yet they haue a speciall property to liue long; and each part asunder wil pant & stir by it selfe. The reason is, because the vitall vertue in them (whatsoeuer it is) is not seated in any one member, this or that, but spread and defused throughout the whole body, and least apparent in the head, of all other parts: for, that alone, vnlesse it be plucked away together with the breast, moueth not one jot. No kind of creatures haue more feet than these: and the more they haue, the longer liue they when they be diuided asunder; as we see by experience in the Scolopendres. Eies they haue, that is certain; & besides sight, they are not without the senses of feeling & tasting: some there be that smell, & a few that haue their hearing also. H

CHAP. V.

¶ Of Bees.

But among them all, Bees are principall, and by good right, deserue especiall admiration, as being the only Insects ordained by Nature for mans vse. They gather honie, a most sweet, pleasant, fine, and wholesome liquor. They frame the hony combs, and work the wax, which serue for a thousand turns in this life. They indure pains continually, and dispatch their worke and businesse. They haue a policie and Commonwealth among themselves. They hold their feuerall counsels: and there is not a swarme or cast that they haue, without a king, and captain of their owne: and that which is most admirable of all, there be ciuill fashions and customes among them. Moreover, being as they are, neither tame and gentle, nor yet to be counted wilde and sauage, yet (see the wondrous worke of Nature!) by the means of so little a creature, nay, a shadow rather (to say a truth) of the least creature, she hath effected a thing incomparable: what strength of sinewes, what force and puissance is able to countervail this so great industry and effectuall power of theirs? What wit and policy of man is answerable to their discrete and orderly course? Beleue me, they passe them all, and in this one point surpass, That all things are common among them, and nothing know they priuat and seuerall. What should we debate and make question any more as touching their breath? Why should wee dispute of their blood, which cannot chuse but be very little in such smal bodies? Let vs rather consider henceforth their wit, and the gifts of their mind. K

CHAP. VI.

¶ The naturall order and regiment that is in Bees.

Bees all winter time keep close within their hives: and good reason; for how possibly should they indure hard frost and chilling snow? how should they abide the piercing blasts of the North winds? And verily it is the manner of all these Insects so to doe, but yet they keepe not in so long. For why? being nestled warm as they are within our houses, they sooner doe recover their vigor, & come abroad betimes. But as concerning Bees, either the times haue changed, & places altered their course, or els the writers beforetime of, this argument haue greatly erred. They begin to retire themselves and take vp their wintering harbor, presently vpon the setting and occultation of the star Vergilia; and come not forth into the field againe, vntill after the rising and apparition thereof. So that Bees go not abroad at the very beginning of the Spring, as Writers haue set downe (for who seeth not the contrary throughout all Italie) but remaine still close and secret, vntill that Beanes begin to bloom; before which time they settle not themselves to any worke or labour. But from thence forward, they lose not a day, they slack not their painful trauel, neither play they one jot, if the weather be faire & wil permit: the first thing they do, is to make their combs & wax, that is to say, their own habitations & store-houses. When they are provided of lodging, they thinke vpon the multiplying of their owne kind: and finally, they gather and make both hony and wax: the substance whereof they sucke from the floures of trees and hearbes, from the gums also of trees which breed such gluiue matter; and besides, out of the iuice, gum, and rosin of the willow, elme, and cane. With these and such like, they plaister all the hie within throughout, as it were with a coat or parget, intermingling

gling withall other iuices that are more vsauorie, gathered from the bitterest hearbs they can get: to the end that they might keepe out other little vermines that are greedy of their hony: as knowing full well, that they are about a piece of worke which is worthie to be desired and sought after. Of this gummy and glutinous substance they frame also their dores and entries which are wide and large.

CHAP. VII.

¶ The proper termes belonging to their worke.

The first foundation of their worke, skilfull hony-masters do call Commosis: the second Pissoceros: the third Propolis, which lieth between those former coats and the wax of the hony combe, whereof there is so great vse in Physicke. Commosis is the first coat or crust of a bitter tast. Pissoceros commeth next after it, as it were a thinner course of pitch or varnish and a weaker kinde of wax, made of the more liquid and mild gum of vines and poplars. But Propolis consisteth of a more solid matter, as hauing the strength of some floures withall: howbeit, as yet it is no ful and perfect wax, but the foundation and strengthening of the combs: and serueth as a good defence against cold, and to stop the passage of waspes and such hurtful creatures as would do iniurie to the bees, for still a strong sent it carrieth, as which, many men do vse in stead of Galbanum. After this munition done, then followeth the prouision of that which is called Erithace, some terme it Sandaracha, and others, Cerinthus. This must serue for the bees meat, whereof they are to liue whiles they worke: and found it is oftentimes, laid apart within the concealities of their combs, it being also of a bitter taste. Now this Erithace commeth of the * Spring-dew, and the moisture issuing out of trees in manner of gum: in lesse abundance euery when the South-west wind blows: but when it is full South, more blacke: and in the Northerly constitution, far better and more red withall. Great store hereof, Bees meet with vpon Almond trees. Menebrates saith, That it is a floure foresheuing what haruest shall insue: * but no man saith so besides him.

* Rore uermis,
or Sea-dew,
Rore marino.

* Being decei-
ued with the
Homonymie
of the word
Cerinthus,
which hath a
double signi-
fication.

CHAP. VIII.

¶ What flowers they be which Bees serue themselves most withall for their worke.

As for wax, Bees gather and make it of the floures of all trees, herbs, and plants, sauing the docke and * Goose-foot, which are two kinds of herbs. Some except also a kind of Broome called Spart, but vntruly: for in Spaine (where there be many places full of that shrub) the hony carrieth the strength thereof in the taste. I am besides of opinion, that they be deceiued who thinke that bees gather not of Oliue trees. For we see it ordinary, that there be more casts and swarms of Bees where Oliues grow in greater abundance. These pretty creatures hurt no fruit whatsoeuer. They will not settle vpon a floure that is faded, and much lesse of any dead carcase. They vse not to go from their hie about their busines about 60 paces: & if it chance, that within the precinct of these limits they finde not floures sufficient: out goe their spies, whom they send forth to discouer forage farther off. If in this expedition, before they come home againe, they be ouertaken by the night, they couch vpon their backs for feare lest their wings should be ouercharged with the euening dew, and so they watch all night vntill the morning.

* Chenopode;

CHAP. IX.

¶ Those that haue taken a speciall pleasure in Bees.

Such is the industrie of this creature, that no man need to wonder at those two persons who delighted so much in them, that the one (namely *Aristomachus* of Soli) for threescore yeares lacking but twaine, did nothing els but keep bees. and *Philiscus* the Thasian employed the whole time of his life in Forrests and Desarts, to follow these little animals: whereupon hee was surnamed *Agrius*. And both these vpon their knowledge and experience, wrote of Bees.

¶ *The order that they keepe in their worke.*

THe manner of their businesse is this. All the day time they haue a standing watch & ward at their gates, much like to the *corps de guard* in a campe. In the night they rest vntill the morning: by which time, one of them awakerh and raifeth all the rest with two or three big hums or buzzes that it giues, to warn them as it were with found of trumpet. At which signal giuen, the whole troupe prepares to flie forth, if it be a faire and calme day toward, for they doe both foresee, and also foresnew when it will bee either windie or rainie, and then will they keepe within their strength and fort. Now when the weather is temperate (which they fore- know well enough) and that the whole armie is on foot and marched abroad, some gather to- gether the vertue of the floures within their feet and legges: others fil their gorge with water, and charge the downe of their whole body with drops of such liquor. The yonger sort of them go forth to worke, and carry such stufte as is beforenamed, whiles the elder labor & build with- in the hieue. Such as carry the floures abouesaid, stufte the inner parts of their legs behind (and those againe for that purpose hath made rough) with the help of their forefeet: & those againe are charged full by the means of their muffle. Thus being full laden with their prouision, they returne home to the hieue, drawne euen together round as it were in a heap, with their burden: by which time, there be three or foure ready to receiue them, and those ease and discharge them of their lode. For this you must thinke, that they haue their seuerall offices within. Some are busied in building, others in plaistering and ouercasting, to make all smooth and fine: some be at hand to serue the workemen with stufte that they need; others are occupied in getting ready meat and victuals out of that prouision which is brought in: for they feed not by themselves, but take their repast together, because they should both labour and eat alike, and at the same houre. As touching the maner of their building, they begin first about to make arch-work em- bowed, in their combs, and draw the frame of their work downward, where they make two little allies for euery arch or vault, the one to enter in by, the other to go forth at. The combs that are fastened together in the upper part, yea and on the sides, are vnited a little, and hang all toge- ther. They touch not the hieue at all, nor ioine to it. Sometime they are built round, otherwhiles winding bias, according to the proportion of the hieue. A man shall find in one hieue hony combs sometime of two sorts: namely, when two swarms of bees accord together: and yet each one haue their rites and fashions by themselves. For feare lest their combs of wax should be ready to fall, they vphold them with partition wals, arched hollow from the bottom vpward, to the end that they might haue passage euery way to repaire them. The foremost ranks of their combs in the forefront, commonly are built void and with nothing in them, because they should giue no oc- casion for a theefe to enter vpon their labours. Those in the backe part of the hieue, are euer ful- left of hony: and therefore when men would take out any combs, they turne vp the hieues be- hind. Bees that are emploied in carrying of hony, chuse alwaies to haue the wind with them, if they can. If haply there do arise a tempest or a storm whiles they be abroad, they catch vp some little stony greet to ballance and poise themselves against the wind. Some say, that they take it and lay it vpon their shoulders. And withall, they flie low by the ground vnder the wind when it is against them, and keep along the bushes, to breake the force thereof. A wonder it is to see and obserue the manner of their worke. They mark and note the slow-backs, they chaistise them anon, yea, and afterwards punish them with death. No lesse wonderful also it is to consider how neat and clean they be. All filth and trumperie they remoue out of the way: no foule thing, no ordure lieth in the hieue to hinder their businesse. As for the dung and excrements of such as are working within, they be laid all on a heap in some by-corner, because they should not goe far from their worke: and in foule weather (when otherwise they haue nought to do) they turne it forth. Toward euening, their noise beginneth to slacke and grow lesse and lesse: vntill such time as one of them flieth about with the same loud humming, wherewith she waked them in the morning, and thereby giueth a signal (as it were) and commandement for to go to rest: much after the order in a camp. And then of a sudden they are all hushed and silent.

¶ *Of the drone Bees.*

THe houses and habitations that Bees build first, are for the Commons: which being fini- shed, they set in hand with a pallace for their king. If they foresee that it will be a good season, and that they are like to gather store of prouision, they make paulions also for the Drones. And albeit they be of themselves bigger than the very bees, yet take they vp the least lodgings. Now these drones be without any sting at all, as one would say vnperfect bees, & the last fruit of such old ones as are weary and able to do no more good; the very later brood & in- crease, and to say a truth, no better than slaues to the right bees indeed. And therefore the o- thers as master Bees ouer them, haue them at their commandment: if any drudgery or such like businesse is to be don, out are they sent first: make they but slow haft in that they are set about, sure they are to pay for it, and to be punished without mercy. And not only in their ordinarie worke they serue them in good stead, but also they help them to multiply: for the hotter that the place is, the more hope there is of a greater increase. Certes, this is found by experience, That the better the hieue is peopled with a number of bees, the Cast when time comes will bee the greater, and the oftner will they swarme. But after the hony is growing once to maturitie and perfection, then begin they to driue these drones out of dores: nay, ye shall haue many bees set vpon one poore drone, and kill him out-right. So that a man shall not lightly see any of that kind but in the Spring time.

If one pluck off the wings from a drone, and put him again within the hieue, he will neuer lin vntill he haue done the like by all the rest of the same kind. As touching the roiall pallaces for the kings and captaines that shall be, built they are all most stately, great of recit, in shew magnificent, seated by themselves apart, and like citadels raised vpon some high knap or tuft of a mountaine. If one of these castles chance to be pressed or crushed, there will no more come of that princely race. All the lodgings and rooms where the bees abode is, are fix cornered, ac- cording to the number of feet employed in that worke. None of all this is done at any set time or day appointed: but they take the opportunity when they can espie faire weather to fit their businesse, and so do these things by snatches. And surely within a day or two at the most, they fill their store-houses with hony.

¶ *The Nature of Hony.*

THis pleasant and sweet liquor which we call hony, is ingendered naturally in the aire, and especially by the influence and rising of some starres: but principally during the seruent heat of the canicular daies, euen when the Dog-star is in his full power and force: neuer be- fore the appearing of the star Virgilie, but alwaies before day. For so about the day breake be- times in the morning, the leaues of trees are found bedewed with honey: and looke who- soeuer they are, that haue occasion to be abroad in the aire about the dawning of the morrow, they may euidently perceiue their cloths wet with a clammy humor of hony, yea, & their hairs glewed therewith together, if they go bare headed. Be it what it will, either a certaine sweat of the skie, or some vntuous gelly proceeding from the stars, or rather a liquor purged from the aire when it purifieth it selfe; would God we had it so pure, so cleare, and so naturall, and in the own kind refined, as when it descendeth first, whether it be from skie, from star, or from the aire. For euen now such as it is, passing as it were through so many hands: namely, falling from a re- gion so high and remote from vs, and in the way as it commeth catching much filth: and name- ly, infected with the grosse vapour of the earth which it meeteth in the fall: moreover, sucked and drunke (as it is) by the Bees from the leaues of trees and grasse, and so gathered and laid vp in their little bellies or bladders (for at their mouth they spew and cast it vp againe:) corrup- ted also and sophisticated with other humors drawn out of floures: finally, so long soking with- in the hieues, and suffering so many alterations: yet for all the sorrow, a great resemblance it ca- rieth still with it of a most pleasant, sweet, and celestiall liquor.

CHAP. XIII.

¶ *The best kinde of Honie.*

THe best hony is euer there, where the best floures are; within the receptacles whereof, it lieth. As we may see in the country about Athens, which carrieth the name for honey: also in Sicilie within those territories about Hymettus and Hybla: and lastly, in the Isle Calydna. Now this hony, whereof we treat, is at the first cleare and thin as water; and for certaine daies in the beginning, it workes and boiles like to new wine, and so purgeth it selfe. By the 20 day it getteth a certaine consistence and thicke substance, and soon after gathers a thin cream or skin ouer it: which in the very heat of working, is raised of a scum, and so thickneth. The best simply that bees can sucke, and least infected with the corruption of 3 branches, is that which they get out of the leaues of Oke, Tilia [i. Linden tree] and Canes.

CHAP. XIII.

¶ *The sundry sorts of hony, according to diuers regions.*

Honie (as we said before) is better or worse, according to the region where it is gathered, and that in many respects. For in some place ye shall haue goodly combs: howbeit, more commendable for wax than the hony in them: as in the Pelignians country, and Sicily. In others, and namely in Candie, Cypres, and Africk, the combs yeeld more hony than wax. Some countries there be, especially in the North parts, where the combs passe for bignesse: in so much as in Germany there hath bin a hony-combe seene eight foot long, and blacke all within. But in what region soeuer it be that hony is found, three kinds there be of it. First, the Spring hony made of floures only, like as the comb also: and thereupon the Greeks call it Anthinon, which is as much to say as the Floure-hony. Some would not haue this to be once touched, but to serue for nourishment of the young bees, that the swarmes or casts may be more strong and lustie. Others againe leaue for the bees of none lesse than of it: by reason of the great plenty like to follow, at the rising of those notable stars in the Summer ensuing. Moreouer, the combs are in their principall beauty about the Sun-stead in summer, when daies be longest, at what time as the Vine and Time do begin to floure. Also, in taking forth of the hony combs, needfull it is to be well aduised in ordering the matter for the prouision of food for bees. If they be cut short and destitute of their meat, they either despaire and die for want, or els depart and flie away. Contrariwise, if you leaue them too much, plenty breeds idlenesse, that they will not labour: neither deigne they to feed of Erithace, their ordinarie food, but fall to the good hony. They therefore that be well experienced in these matters, thinke it good to leaue them the twelfth part of this store and vintage, if I may so say, which is gathered in the combs. And verily, it seemeth that Nature hath ordained a certaine set day for to begin this vintage, if men would take knowledge thereof, and marke it well; namely, the 30 day, after the bees swarmed and went forth: and usually it fallerth out, that this gathering commeth within the moneth of May. A second kind of hony there is, which we call Summer hony, and is named also Horæum, of that principall season wherein it is made, namely, in the very midst of dog-daies, when the star Sirius is in his full strength: and that commonly is 30 daies after the Sun-stead. And I assure you, Nature hath shewed her admirable and excellent power to men ward in this behalfe: in case their fraud and deceit would suffer her works in their entire and proper nature without corruption and sophistication, which marreth all, and maketh nothing but confusion. For vpon the rising and apparition of any star, and especially of those that be more excellent than the rest, or after that a rainbow is seen about the earth, and no showers of rain presently follow, but a drizzling dew warmed with the raies and beams of the Sun: ye shall haue that which falleth, not to be bare hony, but a very medicinable thing, euen a celestiall gift, singular good for eies and vlcers, yea, and comfortable to the principall noble parts within the body. And if this happen to be at the rising of the dog-star, and it chance withall, that vpon the same day (as oftentimes it falleth out) Venus, Iupiter, or Mercury bee Orientall, then shall yee haue so heavenly a sweet liquor, that no one thing in the World may bee comparable to it for the curing of all our maladies, and euen to reduce and recouer vs backe from death vnto life, like vnto that celestiall

G

A and diuine Nectar, which immortalizeth the gods aboue.

CHAP. XV.

¶ *The markes of good hony.*

More plenty of hony is gathered in the full of the Moone, than at any other time: and if therewith the weather be faire, the same wil be more viscous and fattie. In all kinds, the best hony is that, which runneth of it selfe as new Wine and Oile; and called it is Accedon, as a man would say, gotten without care & trauell. All Summer hony is red, as being made in the driest season of the yere. The hony which commeth of Time, is held to be the best and most profitable, in colour like gold, in taste right pleasant; euident to be knowne by the little leaues therein: and the same is likewise fattie. That which is made of Rosemary, or within the aire and vapour of the sea, is thick: and such verily as is thus candied, and will not run like life-hony, is nothing commendable. As for Time honey it will not thicken: and if a man touch it, rope it wil and draw small slimie threds after it: which is a principall signe of the weight and heauinesse thereof. If hony be short in the handling, and soon breake, and that the drops part one from the other, it is thought to be a token of the worst and courtest of all. Another triall there is besides of good hony, namely, if it be fragrant and odoriferous to smell vnto, sweet in taste, & biting withall, or quick at the tongues end, glutinous and cleare. As touching the driuing of hives for summer hony, *Thasius Dionysius* is of opinion, that the tenth part thereof should be left for the bees, namely, if they were full: if not, then according to the proportion: but if they were but light and very thin, he would not haue them to be touched at all. The Athenians goe by this rule, and do obserue duly the Caprificial day, which is kept wholly vnto *Vulcan*: for then they euer begin to driue their hives for this kind of honie.

CHAP. XVI.

¶ *Of a third kinde of Honie: and how a man should know good Bees.*

THere is a third sort of wild hony, which the Greeks call *Ericæum* [i. Heath or Ling hony] and is of least reckoning. It is gathered after the first rain in Autumne, when the heath and lings only bloom in the woods, wherupon it seems as if it were sandy. This kind of hony is ingendred for the most part after the rising of Arcturus, much about the Ides of September. Some there be that continue in gathering Summer hony to the rising of Arcturus: betwene which and the Autumne Equinoctial are 14 daies; & from thence vnto the setting of Virgilie (namely, for the space of 48 daies) the said heath is most in his blooming time. This thrub the Athenians call Tetralix; the Eubœans name it Sifara; & they repute it to be a floure most pleasant to bees, haply, because at that time there is no plenty of other floures. This gathering of hony is about the end of vintage, & the occultation of the Vergilie: & commonly ends by the Ides of November. In driuing of the hives for this hony, by good reason, two [third] parts thereof would be reserved for the bees: & especially those corners of the combs, which haue in them the prouision called Erithace. From the mids of winter to the rising of Arcturus, for 60 daies bees are nourished only with sleep, without any other food. But from that time vnto the spring equinoctial, and namely, where the weather is more warm, they are awake. Howbeit, they lie still in their hives, & then fall to their victuals which they had laid vp in store against that time: but in Italy they do the like indeed after the rising of the star Virgilie: howbeit, till then they do nothing but sleep. And there verily, men vse when they take the hony forth of the hives, to weigh the combs, and so by weight dispenſe & set out how much they will leaue them for their food: hauing this opinion, that they are bound to deale in justice & equity euen with the very bees: in so much, as it is commonly said, if they be defrauded of their due in this society & part-taking, and find falshood in fellowship, they wil die for grieve: & so both the old stock will be lost, and the hope also of a new increase. In the first place therefore, this is a rule, that such folk only be set about this businesse to driue the hives, who are neat & clean. A theefe & a woman whiles she is in her monthly sicknes, they abhor. In the taking out of hony, the best means to driue away the bees, is to smoke them out of the hives: lest that you anger them, or that they deuoure the honie themselves with more greedines. Moreouer, when they grow to be idle, perfuming & smoking

of them thus now and then, maketh them more fresh to go about their worke. For when they lie still and doe nothing, they make their combs looke dead and blackish. Again, if they be ouermuch smoked, they will be the worfe for it; and surely, the very hony soon catcheth the hurt hereof, for so tender and weake will it be, that with the least dew that is, you shal haue it to turne and waxe soure. And therefore in all kinds of hony they obserue and keepe that which is called Acapnon [without smoke.] The hony gathered of both sorts of Thyme, called thereupon Bithynum, is not white; howbeit, very good it is for eyes and to cleanse vlcers.

Now as touching the generation of Bees, and how they multiply and increase, much dispute there hath bin among the learned, and a nice question this is. For first and foremost, bees were neuer seen to ingender one with another: and therefore most men haue bin of opinion, that yong bees must needs be made of floures sirly and hand somely laid together and composed, according to Natures lore. Others say, that one master Bee which is the king in euery swarme, doth beget them all; and that he forsooth is the only male; bigger also than the rest and more strong, because he should not faint and faile in the action: for without such an one, we see there is no breed; and him all the other bees attend vpon, not as their leader and captain, but as the female follow the male. Certes this were a good coniectural opinion, and founding to a truth, but that the breed of these Drone-bees aforesaid, doth checke and ouerthrow it cleare: for what reason is there that one and the same maner of procreation, should bring forth some perfect & others vnperfect? The former opinion yet might seeme more probable, but for another difficulty and inconuenience that crosseth it too; for otherwhiles in the vtmost edges and sides of the combs, there are seen to breed the bigger kind of bees, which chase and driue the others away; and this vermin is called Oestrus [the gad-bee or horte flie.] Now if those little wormes or grubs from whence the bees come, were made of floures, which they themselues formed and brought into fashion, how cometh this gad-bee, and whereof is he made? This is certaine, that bees couvy and sit as hens do: and that which is (after a sort) by them hatched, seemeth at the first to be a little white grub or magot, lying crosse ouerthwart the hony, and so fast sticking thereto, as if it seemed to feed thereupon. The king that shall be, at the very first is yellow, and of the colour of hony; as if he were made of the most choise and excellent floure of all the rest: nothing like to a grub as the other, but presently hath wings. The rest of the multitude, when they begin to take some shape, are called Nymphs: like as the Drones at the beginning, be termed Sirenes or Cephenees. If a man take their heads from either sort, before they be winged, it is a most pleasant and excellent meat for the old dams. In processe of time as they grow bigger, the old bees distill and drop meat into their mouths, as they sit vpon them: then they keep most humming (as some thinke) for to set combs into an heat, which is requisit and necessarie for the hatching of them; and thus they continue, till the little pellicles or membranes be broken: within which, euery one lieth by it selfe, as eggs; and then they break forth all together and shew themselves accomplished bees. The maner and experiment hereof, was seene vpon a time in a ferme neere vnto Rome, belonging to a nobleman of Rome who sometime had bin Consul: for he caused his hives to be made of lanterne horns that a man might see through into them. These yong worms be 45 daies before they come to their perfection.

There is found in some combs, a certain bitter thing and hard like to wax, which the Latines call *Clerus*. This is as it were the abortiue and vtimately fruit of the bees, to wit, when either by maladie or idlenesse, or rather vpon some barrennesse and vnfruitfull disposition by nature, bees are not able to bring the same to perfection.

As for the yong bees, they are not so soon abroad, but they begin to labor with their mothers, and are trained by them to learn how to gather hony. This yong people haue a yong king also: vnto whom they make court, and whom they follow. And many such kings are bred at first, for feare lest they should want; but when the bees are grown big, they all agree with one accord and voice, to kill those that be most vtoward among them, for feare they should make diuisions, factions, and siding to parts. These kings be of two sorts: those that are red alouer, be better than the black or partie-coloured. All the race of them be very faire and goodly to see to: and twice as big as the rest; their wings shorter, their legs straight in their port and manner of march, more stately: carrying in their front a white star, like a diadem or coronet: far brighter also and more neat they be than the common sort.

CHAP.

CHAP. XVII.

¶ The regiment of Bees, and their gouernment.

What shall a man now dispute about *Hercules*, whether there was but one of that name or many? Likewise as touching the Sepulchre of Prince *Bacchus*, where and which it is? As also trouble his head in many other such like antiquities, buried by long continuance of time. For behold, in one small matter that is daily scene in our cuntry houses, in a thing annexed to our fermes, and whereof there is such store, all Authors who haue written of Agriculture are not yet resolu'd: namely, Whether the king of Bees alone hath no sting, and is armed only with majestie; or, whether Nature hath bestowed a sting vpon him, and denied him only the vse thereof? For certaine it is, that this great commander ouer the rest, doth nothing with his sting; & yet a wonder it is to see, how they all are readie to obey him. When hee marches abroad, the whole armie goes forth likewise: then they assemble together, and enuiron him round about; they are of his guard, & so close they keep vnto together, that they will not suffer him once to be seen. At other times, when all his people are busie in labor, himselfe (as a right good captaine) ouerseeth their workes, goes about from one to another, encouraging them in wel doing, and exhorting them to plie their businesse: himselfe only exempt from all other trauell & paines taking. About his person he hath a certaine guard euer attendant: he hath his Lieutors & officers alwaies in readinesse, in token of majestie and princely port. He neuer sets forward, but when the whole swarme is prest likewise to goe forth; and in truth, long time before a man may perceiue that they be about a voiage and expedition; for, many daies together there is an extraordinarie humming and noise within, whiles they prepare to dislodge, trussing vp as it were their bag and baggage, and expecting only a faire day of remoue. And suppose that the king haue in some battaile lost one of his wings, yet will not his hoast forsake him and flie. When they be in march, each one desires and strues to be next the prince, as taking a joy and pride to be scene of him, how lustily they performe their deuoir. If he begin to be wearie, they support him with their shoulders: if he be tired indeed and faint outright, they cary him full and whole. If any one of their owne companie chance to faile for very wearinesse, and doe drag behind, or stray aside and wander out of the way, it will yet endeavour to follow the armie only by the smell and sent. Where the king once settles and takes vp his resting place, there they all pitch downe their tents and encampe. And I assure you, herein lieth a matter of great weight and importance; as touching the Auguries and presages gathered by the manner of their settling, prognosticating both to publicke states and also to priuat persons, something to ensue of much moment, either for good or otherwise; according as they haue been obserued to hang together in clusters like bunches of grapes, either at mens houses, or on the temples of the gods. By occasion whereof, folke had recourse to their deuotions and sacrifice, for to appease the heauenly powers: and yet oftentimes such foretokens haue not bene expiat without some strange euents in the end. There was a swarme of Bees rested vpon the very lips and mouth of *Plato*, when he was but a very babe & infant; foreshewing (no doubt) that singular eloquence of his, and sweet vtterance that afterwards he had. Another cast of Bees settled within the very camp of General *Drusus*, the very same day, when he obtained that notable victorie at *Arbalo*. By which examples we may see, that this coniecturall skill and learning of these Soothsayers holds not alwaies, nor prooues euer true: for they forsooth suppose this to be euermore a portentious signe of some fearfull euent and misfortune. To returne again to our captaine Bee: if he chance to be entrapped and surprized by the enemie, the whole armie is sure withall to be taken with him. If he be defeated & slain, the field is lost: all the rest be scattered, and seek their fortune to serue some other prince: for without one king or other, liue they cannot. Sometime they are druen to kill those of the kings race, and namely when there be many kings together: but this they doe perforce and fall against their wills: and before they will so do, they chuse rather to ruine and pul down the houses wherein they were bred, especially when there is some feare of scarcitie, by reason of the vnkind season; and at such a time also, they chase and driue away the drone bees. And yet I see some doubt made of them: for diuers be of opinion, that they be a kind of Bees by themselves, and that the rest do set against them as very theeues. The biggest they are of all others, but blacke and broad bellied: good reason therefore that they should be

be called Theeues, because they come stealing and eat vp their honey. Certaine it is, that these G drones be killed by the other Bees: and surely, king of their owne they haue none. But how they should be naturally without a sting, there is some question, & the same as yet not determined. This is well known, that in a moist and rainie spring, Bees multiply better: but if it be drie weather, there will be more increase of hony. Now if it happen, that the meat in one hiue be spent, the Bees belonging thereto will assaile their next neighbors, with intent to rob & spoile them of their provision. But they on the contrarie side, put themselves in battel aray, with full intent to take them againe. And if there chance to be a keeper by, to see the combat, that part which perceiues him to fauor their side, wil not once make at him for to sting him. Other causes there are besides, which make them often to go together by the ears, & then shall ye haue feuerall H captaines to arrange their battalions one against another. But most of all they brawle and jar upon occasion of gathering and carrying floures, whiles they call each one to his owne companie, for to come forth and take part. But all this great fray is soon parted and dispatched, either by casting vp some dust among them, or by making a little smoak & perfume vnder them. And reconciled soone they be againe, with setting before them a messe of milke, or honied-water.

CHAP. XVIII.

¶ Of the sundrie sorts of Bees in generall: and what things be contrarie and hurtfull vnto them.

There is a kind of rusticall and wild Bee: and such are more rough and hideous to see to: I much angrier also and curst than the rest: howbeit, more laborious and painfull by farre. Of domestical and tame house-Bees, there are two sorts. The best be those that are short, well trust vp and round, and withall, painted with sundrie colours. The long ones be the worse, and such as resemble waspes: and yet the worst of all others, be those that are hairie all ouer. Within the kingdome of Pontus there be white Bees, and those make honey twice in euerie moneth. Moreouer, along the riuer Thermoodon, there be two sorts more. The one, gathers honie in trees: others, within the ground, and bring great increase thereof: for they frame their combs with a threefold course and ranke. The sting that Nature hath giuen vnto Bees sticketh within their bellies. Some are of opinion, that with the first pricke they giue with it, they die K presently. Others hold, that they die not withall, vnlesse they thrust it forth so far, that some of the gut follows after: many howeuer it be, they become afterwards no better than drones: neither gather they any more honey, as if they were gelded of their vigor and strength; so as they cease to doe good and harme both at once. We find it written in Chronicles, that horses haue beene stung to death by them. Filthie stinking fauors they cannot abide, and namely, such as be contagious, and from them will they flie farre enough. Nay more than that, sure they will be to haunt & sting them that smell as they go of sweet pomanders and odoriferous ointments, notwithstanding they be otherwise themselves subject to the injuries of most liuing creatures. For first and foremost, they are molested and assailed by those of their owne nature, but yet degenerate and of bastard breed, to wit, Waspes and Hornets: also by a kind of Gnats called M. liones, Swallows, Martins, and some other birds, make foule worke among them, and are their mortall enemies. The Frogs lie in wait for them as they come to drink: which is the principall worke they haue to doe, when they be about to multiply and breed yong. And not those Frogs only which keep in standing pooles and running riuers, but those land-Frogs of a Todes kind will come of their owne accord from out of the brambles and briars where they keep, and leap vp to the very dore and entrance of the hiue; were they wil blow and breath in vnto them: and when the Bees come flying forth thither, to see what the matter is, soone are they snapt vp and deuoured. And as for Frogs, all the sort of them are supposed not to feele the pricke of their sting. Sheep also are no friends of theirs: for if they be once intangled within the ir wool, hardly can they get out againe. Seeth but Crab-fish neer to their hiues, the very aire & smell thereof will kill them. Ouer and besides, Bees naturally are many times sick; and that do they shew most evidently: a man shall see it in them by their heauie looks, & by their faintnesse in their busines: ye shall mark how some will bring forth others that be sicke and diseased, into the warme sun, and be readie to minister vnto them & giue them meat. Nay, ye shall haue them to carie forth their dead, and to accompanie the corps full decently, as in a solemne funerall. If it chance that the

A the king be dead of some pestilent malady, the commons & subiects mourn, they take thought and griue with heauy chere and sad countenance: idle they be, and take no ioy to doe any thing: they gather in no prouision, they march not forth; onely with a certaine dolefull humming they gather round about his corps, and will not away. Then requisite it is and necessarie to seuer & part the multitude, and so to take away the body from them, otherwise they would keep a looking at the breathlesse carcasse, and neuer go from it, but stil moan and mourn without end. And euen then also they had need be cherished and comforted with good victuals, otherwise they would pine away & die with hunger. To conclude, a man may soon know when Bees be well in health, by their cheerfulnesse and fresh hue that they carry.

B

CHAP. XIX.

Diseases of Bees.

There be diseases also and imperfections in their worke: and namely when they fill not their combs, or bring not to perfection their yong Bees. The first is called Cleros, like as the other Blapigonia. Moreouer, the sound made by reuerberation of the aire, which men call Echo, is hurtfull vnto them, for they feare mightily that resounding noise comming with a double stroke. Mists & fogs also trouble them much: as for spiders, they be their greatest enemies of all others, in case they can preuaile so much as to enter into the hiue & weaue a copweb within it: for they kil all the Bees, and there is no remedie against it. Againe, that Moth or Butterfly which vseth to fly about the snuffe of a candle burning, (a poore silly flie otherwise, and of base account) here doth much hurt, and that in diuers sorts; for not only it self eateth and gnaweth the wax of their combs, but also doth blow and leaue behind them such excrements as afterwards proue other moths. Also, wherefoeuer he goes and flies within the hiue, he leaues behind him a certaine substance, comming most from the dusty downe of his wings, with which he thickeneth the threds as it were of copwebs. There breed likewise euen in very wood certain worms, which about all things make means to eat the combs. What should I speake of their owne greedy feeding and glutting themselves with too much liquour of the floures, in the Spring time especially: whereupon ensueth a dangerous flux and loosnesse of their belly. As for oile, it is not bane to Bees only, but also to all other Insects: especially if a man dip their heads in it, and then let them be in the Sun, for presently they wil die of it. Many times Bees are causers of their own death, with getting a fursie by excessiue deuouring of honie, namely when they see it ready to be taken out of the hiue: for otherwise they are very thrifty ouer-great sparers, and such, as at other times will driue out those that wast prodigally, and be gluttinous, no lesse than such as be idle larks, and slow at work. Nay, euen their own honie doth them hurt; for if they be anointed therewith in their hinder parts, they will die vpon it. Lo how many enemies this creature, so liberall and bountifull, hath! see how many casualties it is subiect vnto! and yet what be these I haue already rehearsed, in proportion and comparison of those which are omitted. Their remedies will we speake of in conuenient time and place: for this present content I will my selfe to treat only of their natures.

E

CHAP. XX.

¶ How to keepe Bees to the hiue: and the manner of repairing them.

Bees ioy in the clapping of hands, and ringing of brasen basons: at the sound thereof they will assemble and come together: wherby it is plain, that they haue the sence of hearing. When they haue done their taske of worke; when they haue brought forth their yong ones, and fully accomplished all their deuoir, then they perform a solemnitie of exercise: wherein after they haue flown abroad in the open aire at libertie, fetched their compasse about on high, gathered into rings and rounds in manner of tournament for their pleasure: then at last when it is time of repast they return home again. The longest time that they can liue (say that they passe through all dangers, and no misfortune light vpon them, but euery thing that is aduerser fall out well and happily) is not aboue seuen yeares. And neuer was it knowne or heard of, that an hiue continued aboue ten yeares. Some Writers be of opinion, That dead Bees if they be kept within a house all a Winter, and when the Spring is come be laid forth in the hot Sunne

Sun to fry, and one whole day be kept couered all ouer with fig tree ashes, they will reuiue and be quick again. But suppose they be not only dead, but their bodies also lost and gon, some say they may be repaired, and a new swarm ingendred, by laying the fresh panches of oxen or kine newly killed, with the dung, garbage and all, within a dunghill there to putrifie. *Virgil* affirms, that the carcasses of any yong sheers will do the same: like as dead horses will bred waspes and hornets: and Asses carrion turne to be Beetle flies, by a certain metamorphosis which Nature maketh, from one creature to another. And yet there be none of all these but are seen to engender: howbeit the manner of their breed is much after the nature of Bees.

CHAP. XXI.

¶ Of Waspes and Hornets.

Wasps vse to build them nests on high of earth and clay, and therein make their roomes and cels of wax. Hornets, in caues and holes vnder the ground. All these verily haue their chambers made with six corners, and yet their nests consist of some barke and substance like cobwebs. And as they be a barbarous and sauage kind of creatures, so their yong is not vniforme: one is ready to fly abroad, while another is but yong & not fledge, and a third a meere worme and grub still. All these breed in Autumne, and neuer in the spring. When the Moone is in the full they increase maruellously. As for the little waspes, called *Ichneumon*es (and lesse they be than others) they vse to kill one kind of spiders, called *Phalangia*, and carry them into their nests: they besmeare them all ouer with a liniment, sit ouer them, and so create their own kind. Moreover, all the sort of these liue vpon flesh, contrary to the manner of Bees, which will not touch a dead carcassee. But waspes hunt after the greater flies, and when they haue whipt off their heads, carry away the rest of their bodies for their prouision. The wild Hornets vse to keep in hollow trees: all winter time, like other Insects, they lie hid, and liue not aboue two yerres. If a man be stung with them, hardly he escapes without an ague: and some haue written, that 27 pricks of theirs will kill a man. The other Hornets which seeme to be the gentler be of two sorts: the lesse of body do worke and trauell for their liuing, and they die when winter is come; but the greater sort of them continue two yerres: and those also are nothing dangerous, but mild and tractable. These make their nests in the spring, and the same for the most part hauing foure dores or entries vnto them, wherein the lesser labouring hornets aboutesaid are ingendred. When those are quick, brought to perfection, & gotten abroad, they build longer nests; in which they bring forth those that shall be mothers and breeders; by which time those yong hornets that worke be ready to do their businesse and feed these other. Now these mothers appeare broader than the rest, and doubtfull it is, whether they haue any sting or no, because they are neuer seen to thrust them forth. These likewise haue their drones among them as well as Bees. Some think, that toward winter these all do lose their stings. Neither Hornets nor Waspes haue kings or swarms, after the maner of Bees, but yet they repaire their kind, and maintaine their race by a new breed and generation.

CHAP. XXII.

¶ Of Silk-wormes: the *Bombylius*, and *Necydalus*. And who first inuented silke cloath.

A fourth kind of flie there is breeding in Assyria, & greater than those aboue named, called *Bombyx* [i. the Silke-worme.] They build their nests of earth or clay, close sticking to some stone or rock, in manner of salt; and withall so hard, that scarcely a man may enter them with the point of a spear. In which they make also wax, but in more plenty than bees: and after that, bring forth a greater worme than all the rest before rehearsed. These flies ingender also after another sort; namely, of a greater worme or grub, putting forth two hornes after that kind: and these be certain canker-wormes. Then these grow afterwards to be *Bombylij*; and so forward to *Necydali*: of which in six moneths after come the silke-wormes *Bombyces*. Silk-worms spin & weaue webs like to those of the spiders, and all to please our dainty dames, who thereof make their fine silks and veluets, forme their costly garments and superfluous apparell, which are called *Bombycina*. The first that deuised to vnweaue these webs of the silke-worme,

A worrne, and to weaue the same againe, was a woman in Coos named *Pamphila*, daughter of *Latomus*: and surely she is not to be defrauded of her due honor and praise, for the inuention of that fine silke, *Tissanie*, *Sarcener*, and *Cypres*, which in stead of apparell to couer and hide, shew women naked thorough them.

CHAP. XXIII.

¶ Of the Silkworme in Coos.

It is commonly said, that in the Isle Coos there be certaine Silkwormes engendred of floures, which by the meanes of rain-showers, are beaten downe and fall from the Cypres tree, *Terebinth*, *Oke*, and *Ash*: and they soone after doe quicken and take life by the vapor arising out of the earth. And men say, that in the beginning, they are like vnto little Butterflies naked; but after a while (being impatient of the cold) are ouergrowne with haire, and against the winter, arme themselves with good thick-clothes: for being rough-footed, as they are, they gather all the cotton and downe of the leaues which they can come by, for to make their fleece. After this they sal to beat, to felt & thicken it close with their feet, then to card it with their nails: which done, they draw it out at length, and hang it betweene branches of trees, and so kembe it in the end to make it thin and subtile. When al is brought to this passe, they enwrap & enfold themselves (as it were) in a round bal and clew of thread, and so nestle within it. Then are they taken vp by men, put in earthen pots, kept there warme, and nourished with bran, vntill such time as they haue wings according to their kind: and being thus well clad and appointed, they be let go to do other businesse. Now as touching the wooll or fleece which they haue begun, men suffer it to relent in some moisture, and so anon it is spun into a small thread, with a spindle made of some light Kex or Reed. This is the making of that fine Say, wherof silke cloth is made, which men also are not abashed to put on and vse, because in summer they would go light and thin. And so far do men draw back now a daies from carying a good corset & armor on their backs, that they think their ordinarie apparell doth ouer-lode them. Howbeit, hitherto haue they not medled with the Assyrian Silkworme, but left it for the fine wiuues and dames of the city.

CHAP. XXIV.

¶ Of Spiders, and their generation.

It were not amisse to joine hereunto a discourse of Spiders, for their admirable nature, which deserues a speciall consideration. Wherin, this is first to be noted, that of them there be many kinds, and those so well known vnto euery man, that needles is to be particularize & stand much vpon this point. As for those which be called *Phalangia*, their stinging and biting is venomous, their bodie small, of diuers colors, and sharpe pointed forward; and as they go, they seeme to hop and skip. A second sort be black, and their feet are exceeding long. All of them haue in their legs, three joints. The least of this kind, called *Lupi*, spin not at all nor make any webs. The greater, stretch forth their webs before the small entries into their holes within the ground. But the third kind of Spiders, be they which are so wonderfull for their fine spinning and skilful workmanship: these weaue the great and large cobwebs that we see; & yet their very womb yeeldes all the matter and stuffe wherof they be made. Whether it be, that at some certain season naturally their belly is so corrupt (as *Democritus* saith:) or that within it there is a certain bed (as it were) which engenders the substance of silke. But surely whatsoeuer it is, so sure and steadie nailes the Spider hath, so fine, so round, and euen a thread she spinnes, hanging thereunto her selfe, and vsing the weight of her owne bodie in stead of a wherue; that a wonder it is to see the manner thereof. She begins to weaue at the very mids of the web, and when she hath laid the warpe, brings ouer the woofe in compasse round. The mashes and marks she dispenses equally by euen spaces; yet so, as euery course growes wider than other: and albeit they do increase still from narrow to be broader, yet are they held and tied fast by knots that canot be vndone. Mark, I pray you, how artificially she hides the snares in that net of hers, made into squares, to catch the poore flies. A man would not thinke (who sees the long yarne in her web wrought serce-wise, smoothed and polished so cunningly, and the verie manner of the woofe so glewish and clammie as it is, of it selfe) that all were to any purpose, and serued for that which she

she intends. See withall, how slacke and hollow the net is made to abide the wind, for feare of G breaking; and thereby so much the better also to fold and enwrap whatsoeuer comes within her reach! What a craft is this of hers to leaue the vpper part thereof in the front vndone, as if she were wearie (for so a man may guesse, when he can hardly see the reason) and (as it is in hunters net and toile) that so soone as those nets be stumbled vpon, they should cast the flies headlong into the lap and concauitie of the net? To come now vnto her nest and hole: Is there any Architecture comparable to the vault and arched frame? And for to keep out the cold, how is it wrought with a longer and deeper nap than the rest! What subtiltie is this of hers, to retire into a corner so far from the mids, making semblance as though she meant nothing lesse than that she doth, and as if she went about some other businesse! Nay, how close lies she, that it is impossible for one to see, whether any bodie be within or no! What should I speak of the strength H that this web hath to resist the puffs and blasts of winds; of the roughnesse to hold and not breake, notwithstanding a deale of dust doth weigh and beare it downe? Many a time ye shall see a broad web reaching from one tree to another: and this is when she learns to weaue & begins to practise and trie her skill. Shee stretches a thread, and warps in length from the top of the tree downe to the very ground; and vp againe she whirles most nimbly by the same thread: so as at one time, she spins and winds vp her yarne. Now if it chance that any thing light into her net, how watchfull, how quick sighted, how readie is she to run? Be it neuer so little snared euen in the very skirt and vmost edge thereof, she alwaies skuds into the mids; for so by shaking the whole net, she intangles the flie or whatsoeuer it be, so much the more. Looke what is slit or I rent therein, she presently doth mend and repaire, and that so euen and small, that a man cannot see where the hole was derved and drawne vp againe. These Spiders hunt also after the yong Lizards: first they enfold and wrap the head within their web: then, they catch hold and tweek both their lips together, and so bite and pinch them. A worthy sight and spectacle to behold, fit for a king, euen from the stately Amphitheatres, when such a combat chanceth.

Moreover, there be many presages and prognostications depend vpon these Spiders: for against any inundations and ouerflowings of riuers, they weaue and make their cobwebs higher than they were wont. In faire and cleare weather, they neither spin nor weaue, vpon thicke and cloudie daies, they be hard at worke; and therefore many cobwebs be a signe of raine. Some thinke, it is the female that spins and weaues; and the male, which hunts and gets in the prouision for the familie: thus ordering the matter equally in earning their liuing, as man and wife together in one house. Spiders engender together with their buttocks; & little worms they do lay like eggs. For, considering that the generation of all Insects besides, in a manner can be declared and shewed no otherwise, I must not deferre the relation thereof, it being so admirable as it is. Well then, these eggs they lay in their webs, but scattering here and there, because they vse to skip and leap when they thrust them forth. The Phalangius only sits vpon the eggs within the very hole, and those in great number: which begin not so soon to peep, but they eat the mother, yea and oftentimes the father likewise, for he helps her also to cooue. And these kind of Spiders bring commonly 300 at a time: whereas all the rest haue fewer. They sit ordinarily thirtie daies. As for yong Spiders, they come to their full growth and perfection in foure weekes. L

CHAP. XXV.

¶ Of Scorpions.

SEmblably, the land Scorpions do lay certaine little worms or grubs in maner of eggs: and when they haue so done, perish likewise for their labour, as the Spiders. Their stings be as venomous and dangerous, as those of serpents: and albeit there ensue not thereupon so present death, yet they put folke to more paine a great deale; inasmuch as they languish and lie drawing on three daies before they die. If a maiden be stung with one of them, she is sure to die of it: other women also for the most part catch their death thereby, and hardly escape. Yea and M men also find their poison to be mortall & deadly, if they be stung in a morning by them when they creep newly out of their holes, fasting, & before they haue discharged their poison by pricking one thing or other first. Their sting lies in their tails, and readie they are with it alwaies to strike. There is not a minute of an houre but they practise and trie how they can thrust it forth, (so malicious they be) because they would not lose and misse the first opportunity presented vnto

A vnto them. They strike both sidelong or byas, and also crooked and bending vpward, with their taile. The poison that comes from them, is white, as *Apollodorus* saith, who also hath set downe 9 sorts of them, and distinguished them by their colours, which me thinks, was but superfluous, and more than needed; considering that a man cannot know by his discourse, which of them he would haue to be least hurtfull and noisome. He affirmeth, that some haue double stings, and that the males are more curst and cruell than the females: for he auouches, that they do engender together, and that the males may be knowne by this, That they are long and slender. Moreover, that they be all of them venomous about mid-day, when they be enchaufed and set into an heat, by the scalding and scorching sun: also when they be drie and thirstie, they cannot drinke B their full and quench their drought. This is well known, that those which haue seuen joints in their tails, be more fell than the rest: for it is ordinarie in them to haue but six. In Affrick, this pestilent creature vses to flie also, namely, when the Southerne winds blow, which carrie them aloft in the aire and beare them vp as they stretch forth their armes like oares. The same *Apollodorus* before-named auouches plainly, that some of them haue very wings indeed. The people called *Psylli* (who making a gainfull trade and merchandise of it, to bring in hither vnto vs the poisons of other countries, and by that meanes haue filled Italie with forrein venomous beasts) haue many times assaied to bring them hither; but neuer would they abide so much as the aire of Sicilie, nor liue in that tract. Howbeit we see of them now and then in Italie, but harmlesse they be all: like as in many other places besides, and namely about Pharus in Egypt. C In * Scythia they be so dangerous, that they kill their hogs, which otherwise be creatures that can eat such poisons, and yet liue and do full well. And if it be true that is said, the black swine die more speedily, especially if after they be stung, they goe into the water and drench themselves. If a man be stung with a Scorpion and drinke the powder of them in wine, it is thought to be present remedie. Men hold, that nothing is more contrarie vnto them than oile, if they be dipped therein: as also to the Stelliones, which are made like Lizards, and do no hurt to them only, because they are without blood. Like as the Scorpions also are said to be harmlesse to any thing that is bloodlesse. Some are of opinion, that they likewise deuoure their young, saue only one who is more slie and craftie than the rest, who gets vpon the rumpe behind of the mother, and there sits, being assured that hee is safe enough in that place, both from sting of taile D and tooth in mouth. This Scorpion reuenges the death of his other brethren and sisters: for in the end he skips vpon the backe of father, and mother both, where he gnaweth and eateth them to death. To conclude, Scorpions vsually do breed eleuen young ones at a time.

CHAP. XXVI.

¶ Of Stellions and Grasshoppers.

THE Stellions after a sort be of the nature of Chamæleons, liuing only vpon dew and Spiders. Grasshoppers liue also much after the same manner. And they be of two sorts, namely, the lesser, which come first, and die last: but those be mute. The latter breed, seldome or E neuer flie: and those likewise are of two kindes. Such as sing aloud be named Echetæ; and the lesser sort of them Tettigoniæ: but those other are more shrill and chant full merrily. The male Grasshoppers in both kinds, do sing: the females are silent. The people of the East countries make their food of them: euen the very Parthians, who otherwise abound in wealth. The hee Grasshoppers are the sweeter meat before the time of engendring: and the three Grasshoppers afterward, by reason of eggs knotted within them, and those be white. They engender with their bellies vpward. They haue a certain roughnesse vpon their backs, which is very sharp, and therewith they worke a hollow gutter in the ground, as a nest to lay their eggs and breed in. At the first, appeareth a little worme or maggot; whereof comes afterward that which they call Tettigometra, as one would say, the mother of Grasshoppers, or the great Grasshopper. For about the Sunstead in Summer, the vmost crust or case thereof breaketh, and then out they flie, and alwaies in the night. At the first, blacke they be and hard withall. Of all creatures that are known to liue, the Grasshoppers alone haue no mouth: in stead whereof, they haue a certaine sharp pointed thing in their breast (like vnto their tongues that carrie stings in their mouthes) and with it they sucke and licke in the dew. Their breast is full of little pipes, from whence commeth that ringing noise of the Echetæ which we do heare, as I haue aboue said. Moreover, their bellie is F f empty

* Of rather the Caria.

emptie and hath nothing in it. When a man raiseth them, so as they be thereby forced to flie, G they yeeld forth a certaine humor: which is the onely argument that they be nourished of the dew. They haue moreouer this one marke from all other liuing creatures, namely, no concavities of their bodie to be seene wherby to void out any excrements. So dimme, fighted they be, that if a man chance to come neare vnto them, plucking in and stretching out his finger before them, they will presently leape vpon it, supposing that it is some leafe that waggeth. Writers there be, that make two more kinds of them, namely, the greater, which appeare at the first spring and budding of trees; wherupon it is called Surcularia: and a lesser, which some name Frumentaria, others Auenaria. For this sheweth it selfe when the corne is ripe and begins to die in the straw.

CHAP. XXVII.

¶ Places wherein there be no Grasshoppers: also where they are mute.

IN countries bare and naked of trees and wood, there breed no Grasshoppers: and therefore ye shall haue them at Cyrene, about the towne, but not in the plaines and fields therof. Neither shall a man meet with them in woods that be cold and full of shade. It seemes also, that they take a liking to some one quarter more than another: for in the region of the Milesians, few places there be that haue them: but in Cephalenia, there is a riuer that doth limit and bound them: for of the one side there be plentie of them, and on the other, few or none. In the territory of Rhegium they be all mute. Passe the riuer once and come into the Locrians countrey ye shall heare them chaunt lustily. Wings they haue like to those of Bees, but larger, to the proportion of their bodies.

CHAP. XXVIII.

¶ The wings of Insects, and sundrie kinds of Beetles.

OF Insects, some carie two wings about them, as the flies: others foure, as Bees. As for Grasshoppers, they flie with wings made like pellicles or fine skins. In summe, all Insects which be armed with a sting in their bodie or taile, haue foure apeece: and none againe haue about twaine that carrie their offensive weapon in their mouth. To the former, Nature hath giuen it for to reuenge; to the other, only to feed themselves, and content their appetite. Moreover, plucke from any of them their wings, there will neuer come new in the place. None that haue a sting in their taile, be double winged. Some Insects there be, which haue growing a certaine husk or cod ouer their wings, for the safegard and defence thereof, as the Beetles: and the wings of such be thinner and more brittle than others. Sting they haue none, but a certaine kind of the great ones be armed with two long hornes boking out before them, and two forked they be and toothed like Pinsons, in the top, which (when they list) they can bring together and make them meet, and so nip and bite withall. These Beetles, folke vse to hang about the necke of young babes, as present remedies against many maladies. Such Beetles, *Nigidius* calleth Lucanes. Ouer and besides, there is another sort, which tumbling vpon their back in dung, do roll it into great round balls with their feet; & therein do make nests for to bestow their little grubs (which are their young) against the cold of winter. Some there be that vse to flie vp and down, and where euer they go, make a great buzzing noise as if they lowed. Ye shal haue others again that keepe in meadows; yea and Creakets that haunt the earth and stocke of chimnies, where they make many holes, and lie cricking aloud in the night.

The Glo-wormes, are named by the Greeks Lampyrides, because they shine in the night like a sparke of fire: and it is no more but the brightnes of their sides and taile: for one while as they hold open their wings, they glitter; another while when they keep them close together, they be shadowed and make no shew. These Glowbards neuer appeare before hay is ripe vpon the ground, ne yet after it is cut downe. Contrariwise, the flies called Blattæ, liue and be nourished in darknesse: light is an enemy vnto them, and from it they flie. They breed commonly in M baines and stoues, of the moist vapors that be there. Of the same kind there be other great Beetles red in color, which work themselves holes in the drie earth, where they frame certaine receptacles like vnto Bees combs, little and small, full of pipes resembling hollow sponges; and all

A all for a kind of bastard honey, whereof yet there is some vse in Physicke. In Thracia neare to Olynthus, there is a little territorie or plot of ground; where this one creature (among all other) cannot liue; wherupon the place is called Cantharoletus. The wings generally of all Insects, be whole, without any slit: and none of them hath a taile but the Scorpion. Hee alone hath not only armes but also a sting in the taile. As for the rest, some of them haue a sharp pricked weapon in their muzzle, as namely, the Breefe or great Horle-flie, called in Latine *Aphis* or *Tabanus*, whether you will. Likewise Gnats also, and some kind of flies. And these prickes serue them in good stead both for mouth and tongue. Some of these are but blunt, & not good for to pricke, but only handsome to sucke withall, as flies, which haue all of them a tongue, beeing evidently fitulous and like a pipe. And none of all these haue any teeth. There be Insects B with little hornes proaking out before their eyes, but weake and tender they be, and good for nothing; as the Butterflies. And there be againe, that are not winged, and such be the Scorpions. All Insects that haue legges and feet, goe not directly, but bias and crooked. Of which, some haue the hinder legges longer than the former, and such bend hooked outward; as the Locusts.

CHAP. XXIX.

¶ Of Locusts.

THE Locusts lay egges in Autumne, by thrusting downe into the ground the fistule or end of their chine, and those come forth in great abundance. These egges lie all winter long in the earth; and at the end of the spring the yere following, they put out little Locusts, black of colour, without legs, and creeping vpon their wings. Hereupon it commeth, that if it be a wet spring and rainie, those egges perish and come to no good: but in a drie season, there will be greater increafe and store of Locusts the Summer ensuing. Some writers hold opinion, that they lay and breed twice a yere: likewise that they perish and die as often. For they say, that when the star Vergilia doth arise, they breed: and those afterwards about the beginning of the Dogdaies, die: and others come in their place. Others say, that they engender and breed againe their second litter, at the full or setting of Arcturus. True it is indeed, that the mothers die so soone as they haue brought forth their little ones, by reason of a small worme that presently breeds about their throat, which chokes them. And at the same time, the males likewise mis-carrie. See what a little matter (to speake of) brings them to their death! and yet a wonder it is to consider, how one of them when it list will kill a serpent: for it will take him fast by the chawes, and neuer lin biting till he hath dispatched him. These little beasts breed nowhere but in plain and champion countries, namely, such as be full of chinks and creuises in the ground. It is reported, that there be of them in India, three foot long: where the people of the countrey vse their legs and thighes for sawes, when they be thoroughly dried. These Locusts come by their death another way, besides that aboue-named: for when the wind takes them vp by whole troupes together, they fall downe either into the sea, or some great standing pooles. And this many a time happens by meer chance and fortune; and not (as many haue supposed in old time) because their wings are wet with the night dew. For euen the same Authors haue written, that they flie not in the night for cold. But little know they, that it is ordinarie with them to passe ouer wide and broad seas, and to continue their flight many daies together without rest. And the greater wonder is this, that they know also when a famine is toward: in regard wherof, they seek for food into far countries: in such sort, as their comming is euer held for a plague of the gods, proceeding from their heauie wrath and displeasure. For then commonly they are bigger to be seen, than at other times: and in their flight they keepe such a noise with their wings, that men take them for some strange fowles. They shade and darken the very Sunne as they flie, like vnto a great cloud: inso much, as the people of euery countrey behold them with much feare, least they should light in their territorie, and ouer-spread the whole countrey. And verily their strength is such, that they hold out still in their flight: and as if they had not enogh of it to haue flowne ouer seas, they giue not ouer to traueser mightie great countries in the continent. And looke in what place soeuer they settle, they couer whole fields of corne with a fearefull and terrible cloud: much they burne with their very blast, and no part is free but they eat and gnaw euen the very dores of mens dwelling houses. Many a time they haue been known to take their

their flight out of Affrick, and with whole armies to infest Italie: many a time haue the people of Rome, fearing a great famine and scarcitie toward, been forced to haue recourse vnto Sybils books for remedie, and to auert the ire of the gods. In the Cyrenaicke region within Barbarie, ordained it is by law, euery three yeares to wage war against them, and so to conquer them: that is to say, first to seeke out their nests, and to squash their eggs; secondly, to kill all their yong; and last of all, to proceed euen to the greater ones, and vtterly to destroy them: yea, and a greuous punishment lieth vpon him that is negligent in this behalfe, as if he were a traitor to his prince and countrey. Moreouer, within the Island Lemnos there is a certaine proportion and measure set down, how many and what quantitie euery man shall kill; and they are to exhibit vnto the magistrate a iust and true account thereof; and namely to shew that measure full of dead Locusts. And for this purpose they make much of Iaies, Dawes, and Choughes, whom they doe honour highly, because they flie opposite against the Locusts, and so destroy them. Moreouer, in Syria they are forced to leuie a warlike power of men against them, and make resistance by that meanes. See in how many parts of the world this hurtfull and noisome vermine is disperfed and spread: and yet in Parthia they are taken for very good meat. The voice that they haue (such as it) seemes to come from the hinder part of their head: for about that place where the jointure is of the shoulders to the nape of the neck, they are thought to haue certain teeth, which by grating and grinding one against the other, doe yeeld a kind of crashing noise: and namely, about the time of both the Equinoctials: like as the Grasshoppers at midsummers Sunstead. Locusts engender after the manner of all other Insects which do engender: to wit, the female carries the male: and she lying vnderneath, bends vp the very end of her taile against the other: and thus they continue a good while ere they part afunder. To conclude, the males of all this kind be lesse than the females.

CHAP. XXX.

¶ Of the ordinarie Pismires of our countrey in Italie.

Most part of Insects do breed a grub or little worme. For euen the very Ant in the Spring time doth bring forth such wormes like egges. These filie creatures labor and trauell in common, as the Bees do: this only is the difference, that Bees do make their owne meat, whereas these store vp only their food and prouision. As touching their strength, if a man would compare the burdens that they carie, with their own bodies, he wil find and confesse, that there is not a creature againe in the world, for that proportion, stronger. And how doe they carrie them? euen with their very mouthes. Howbeit, if they meet with any greater load than they can bite betweene their chawes, then they set their shoulders to it, and with their hinder legs also make meanes to driue it forward. They haue among them a certaine forme of Common-wealth: they remember: they are not without care and fore-cast. Looke what feedes or graines they do lay vp for prouision, sure they will be to gnaw it first, for feare they should sprout and take root againe and so grow out of the earth. If a corne or seed be too big for their carriage, they diuide it into peeces, that they may go with it more easily into their house. If their feedes within, chance to take wet, they lay them abroad, and so drie them. They giue not ouer worke by night, when the Moone is at the full: but when she is in the change, they rest and play them. When they are at worke, how painfull are they? how busie, how industrious? And for as much as they make their puruicance in diuers places, and bring from al parts, without knowledge one of the other: they keepe among them certaine market daies, for a mutuall enteruiew and conference together. And verily, it is a world to see, how then they will assemble, what running, what greeting, what enter-course and communication there is between them, whiles they are inquisitive, as they meet one with another. What newes abroad: euen like merchants at a Burse. Their waifare is so ordinarie and continual, that we may see the very hard flint and pebble stones worn with their passage too and frowe may see (I say) a very path-way made where they vse to goe about their worke: whereby, let no man doubt of what force and power continuall vse is, of any thing whatsoever, be it neuer so little. Of all liuing creatures, they only and men, doe enterre and burie their dead among them. To conclude, thoroughout all Sicilie a man shall not see a flying Ant.

CHAP.

CHAP. XXXI.

¶ Of Indian Pismires.

IN the temple of Hercules at Erythra, there were to be seen the horns of a certain Indian Ant, which were there set vp and fastned for a wonder to posteritie. In the countrey of the Northerne Indians, named Dardae, the Ants do cast vp gold about ground from out of the holes and mines within the earth: these are in colour like to cats, and as big as the * wolues of Aegypt. This gold before said, which they worke vp in the winter time, the Indians do steale from them in the extreme heate of Summer, waiting their opportunitie when the Pismires lie close within their caues vnder the ground, from the parching Sun. Yet not without great danger: for if they happen to wind them and catch their sent, out they go, and follow after them in great hast, and with such fury they fly vpon them, that oftentimes they teare them in peeces; let them make way as fast as they can vpon their most swift camels, yet they are not able to saue them. So fleet of pace, so fierce of courage are they, to recouer gold that they loue so well.

CHAP. XXXII.

¶ The diuers generation of some Insects.

Many Insects there be that breed after another sort than the former aboue specified: and principally of dew which settles vpon the radish leafe in the beginning of the Spring. For being made thicke, and hardned with the heate of the Sun it growes to the bignes of the grain of Millet. From it ariseth a little grub, and three daies after it becomes a kind of canker-worme: and so in proceffe and tract of time it groweth bigger without mouing at all, and gathereth an hard husk or case about her: only if a man touch the webby panicles wherein the said worme lieth inwrapped, it will seem to stir. This is called Chrysalis: and after some time, when the kex or husk is broken, he proueth a faire flying butter-fly.

CHAP. XXXIII.

¶ Of Insects that breed in wood, and of wood.

SEmblably there be some Insects ingendred of raine drops standing vpon the earth, and others also of wood: for not only the ordinarie wood-wormes breed in timber, but also certain Brees and horse-flies come of it, yea, and other such like creatures, whensoever the wood happen to be dotted with ouer-much moisture. Like as within one of our bodies there haue bin found broad wormes of 30 foot in length, yea and sometimes longer. Also there haue bin seen in dead carions many wormes: and the very flesh of liuing men is apt to breed such vermin: and so is the haire of the head to harbor lice, of which filthy & loathsome creatures both Sylla the Dictator, and also Alcman (one of the most renowned Greeke Poets) perished. Moreouer, birds are much infested and troubled therewith. And as for Feasants, they will dy thereof vnlesse they bestrew themselves with dust. Of such beasts as carry haire, it is verily thought that the Asse alone and sheep are free from this kind of vermin. Some kind of cloath likewise is apt to ingender lice, and especially those which are made of wooll that sheepe bare which were worried of wolues.ouer and besides, I find in some writers, That there is some water will ingender this vermin if we do but wash therein. For euen in wax there will breed mites, which are thought to be of all creatures that haue life, the very least. Also ye shall haue others again ingender of filthy dry dust, namely fleas, which vse to skip and hop with their hinder feet lustily like these tumblers and vauors. Last of all, there be that come of a certaine moist powder in cranies of the ground, and those be our ordinary little flies.

CHAP. XXXIV.

¶ Of one kind of creature that hath no passage to void excrements.

There is a creature as foule and ill-fauoured as the rest, which hath euermore the head fast sticking within the skin of a beast, and so by sucking of bloud liueth, and swells withall: the only liuing creature of all other that hath no way at all to rid excrements out of the bodie:

make the candle within inclosed to cast the greater light, and farther off. Nay, they are good for many other toies of delight and pleasure: in so much as some paint and dye them with sundry colours, others vernish and anneale them: and ye shal haue men to make thereof their fine inlaid works in Marquettie of diuers colours, called thereupon Cerostrata. All horns in manner be hollow, saue that as they grow toward the pointed tip, they be solid and massie: onely Deers both red and fallow are found and entire throughout: and euery yere they fall off. Husbandmen in the countrey, when they see their Oxe hooves furbatted and worne too neere the quick with ouermuch trauell, anoint their hornes with sweet greafe, & that is the way to make them grow again. And in very truth the hornes of these beafts are of so pliable a substance, and easie to be wrought, that as they grow vpon their heads, euen whiles the beafts are liuing, they may with boiling wax be bended and turned euery way as a man will: yea, and if they be cut when they break new forth out of the skin, they may be easily writhed to grow feuerly in sundry parts, so as euery head may seem to haue foure hornes. For the most part, the hornes of Cowes are more tender and thinner than the other; like as we see it is in the females of smaller beafts: * Ewes haue none at all: ne yet Hinds and Does: no more than the beafts that haue feet clouen & diuided into many toes: or those that be whole hoofed, except the Indian asse, who is armed with one horne and no more. Beasts clouen footed in twaine haue likewise two hornes: but none at all haue they which are toothed in the vpper mandible. They that make this reason, because the matter of their teeth runs al into the horn, and so contrariwise, are deceiued, and soon conuincid by this, That Hinds & Does are toothed no more than Stags and Bucks, and yet are not horned. In other beafts the hornes grow to the very bone of the head, in Deere only they come out of the skin, and are grafted no deeper. Fishes of all liuing creatures haue the biggest heads for the proportion of their bodies, haply because they might the better diue vnder water and sink to the bottom. No kind of Oysters haue any head at all, no more than Spunges, or any other in manner, which want al their fences but only feeling. Some haue heads indeed, but within their body, and not diuided apart from it, as Crabs and Crefishes.

* With vsitis
otherwise.

Haire.

* Orrather
Alpine.

Mankind of all liuing creatures hath most haire on the head, euen men as much as women, as we may see in those countries where they neuer cut their haire, but let it grow. And namely in Sauoy, Dauphine, and Languedoc about the Alps, where men and women both weare long haire; and thereupon that part of France is called Comata. And yet this is not so general, but that the nature of some land and soile may make some alteration and varietie. For the Myconians naturally haue no haire at all: like as the Caunians be all subiect to the disease of hard and swelling spleens, euen from their mothers womb. Some reasonlesse creatures likewise are by nature bald, as Ostriches, and certain * water Rauens, which of the Greeks are named thereupon Phalacro-coraces. Seldom do women shed their haire clean, and become bald: but neuer was any guelled man knowne to be bald: nor any others that be pure virgins, and haue not sacrificed vnto Venus. The haire growing beneath the ventricles of the brain, & vnder the crown of the head, like as also about the temples and eares, falls not off quite. Man alone of all creatures groweth to be bald, I speake not of those that are so by nature. Men, women, and horses wax gray haired. Men and women both begin at the forepart of their heads to be grissie, and afterwards behind. Men and women alone be double crowned.

Brain pan.

Some creatures haue the bones of their skull flat, plain, thin, and without marrow, and the same vnited or ioined together by certain futures or seams indented & toothed on either side, which run one into another. The ruptures and cracks of the brain pan cannot be consolidated and faured perfectly again: but if the spels and pieces be gently taken out, and but small, there is no danger of death: for in their place there will grow a certaine callous cicatrice or fleshie substance that will supply in some sort that defect. Bears of all others haue the tendrest suls; and Parrats the hardest, as we haue said before in place conuenient.

Brains.

Moreover, all liuing creatures that haue blond haue likewise brains: yea, & those in the sea which we call Soft-fishes, although they haue no blond at all, as namely the Pour-cuttlies or Polypes. But man for his bignes and proportion hath most braine of all other, and the same is the moistest & coldest part he hath within his body. Infolded it is within two tunicles or kels, both aboue and beneath: whereof if the one be pierced and wounded [to wit, *Pi-mater*] there is noway but present death. Also, men commonly haue more brains than women. And both of them haue neither blond nor veines therein: as for that which is in other creatures, it wanteth

A wanteth all kind of fat. The learned Anatomists, who haue searched diligently into the nature of things, do teach vs a difference between the brain & marrow of bones: for, brains in the boyling and seething, wax hard. In the midst of the braine of all creatures there be certaine little * bones. Man alone in his infancie hath his brain to pant and beat: and fully settled it is not, nor confirmed, before that he begins to speak. Of all parts necessary for life, it is placed highest, and next vnto the cope of head and heauen both: without flesh, without blood, without filth & ordure. And in truth, it is the fort and castle of all the fences: vnto it all the veines from the heart do tend: in it they all do likewise end. It is the very highest keep, watch-tower, and sentinell of the mind: it is the helme and radder of intelligence and vnderstanding. Moreouer, in creatures it lieth forward in the front of the head: and good reason, because all our fences bend that way just before our faces. From our braine comes sleepe, from thence proceedeth our nappes, our nods, our reeling, and staggering. And looke what creature soeuer wanteth braine, the same sleepeth not. Stags (by report) haue within their heads twentie little wormes, to wit, in the concavity vnder their tongue, and about that iointure where the head is grafted to the chin bone.

* Officula, some
made of
holes.

Man alone hath not the power to shake his eares. Of flaggie, long, and hanging eares, came the synnames first of the *Flacci* (families & houses in Rome.) There is no one part of the bodie costeth our dames more than this, by reason of their precious stones and pendant pearls thereat. In the East countries, men also as well as women, think it a great grace and brauery to weare earings of gold. As touching their proportion, some creatures naturally haue bigger or lesser than others. Deere only, the fallow as well as the red, haue them slit and as it were diuided. In Rats and mice they be hairy. To conclude, no creature hath ears but those that bring forth their yong aliuie: and none of them are without, saue onely Seales, Dolphins, Vipers, and such fishes as were called Cartilagineous and gristly. And these all in stead of eares, haue certaine holes, or conduits, except the foresaid gristly fishes, & the Dolphins: and yet manifest it is, that they do heare wel enough. For delighted they be with musick: and vpon some great noise and sudden crack they are astonished, and then easily taken. But maruel it is how they should heare as they do: neither can I comprehend the reason and means thereof, no more than I am able to shew how they do smell: for no Organs and Instruments haue they thereof to be seene, & yet there is not an hound vpon the land sent better, nor hath a finer nose than they. Of all fouls, the Likeowle and the Otus alone, haue feathers like eares: the rest haue only holes to heare by. And after the same manner skaled fishes and serpents. In Horses, Mules, and Ases, and all such as serue either pack or saddle, the eares are tokens of their courage more or lesse, and will shew what stomack is within them. If they be tired and weary, they hang down flaggie: be they afraid, you shall perceiue them to wag too and fro: in heat of fury they stand pricking vp: in sicknes they lie downe.

Eares.

Man only of all creatures hath a Face and Visage: the rest haue either muzzles and snouts, or else bills and beakes.

Face or Visage.

Other creatures haue Foreheads also as well as men: but in mans alone we may see & reade sorrow & heavinesse, mirth and joy, clemencie and mildnesse, cruelty, and seuerity; and in one word, guesse by it, whether one be of a good nature or no?

Forehead.

In the ascent or rising of the forehead, man hath Eie-brows set, like to the eaves of an house, which he can moue as he list, either both at once, or one after another: and in them is shewed part of the mind within. By them we denie, by them wee grant. These shew most of all others, pride and arrogancie. Wel may it be that pride doth appeare and settle in some other part, yet here is the seat & place of residence. True it is, that in the heart it begins, but hither it mounteth and ascendeth, here it resteth and remaineth. No part can it find in the whole body more eminent and haughty, and withall more steepe than the browes, wherein it might rule and raigine alone without controlment.

Eie-browes.

Next vnder the browes is the Eie, the most precious member of the whole body; which by the vse of sight makes difference between life and death. Yet hath not Nature giuen eyes to all creatures: Oysters haue none: and for some other shel-fishes, it is hard to say whether they haue any or none. As for Scallops, if a man stir his fingers against them as they lie gaping open, they will shut, as if they saw. And the shel-fishes called Solenes, giue backe if any edge-toole come neere vnto them. Of foure-footed creatures, Moldwarps see not at all: a certaine shew and forme

The Eie.

forme they haue of eies to be seen, if a man take off the skin that lieth ouer the place. Moreouer, among foules of the aire, those of the Herons kind, which are called Leuci, for that they be white, want (by report) one eie. And for certaine, in case of Augurie, if these birds flie either into the South or North, it is holden for an excellent good presage, for they assure men that peril is past and promise securitie. *Nigidius* affirmeth, That neither Locusts nor yet Grasshoppers haue eies. As for snails and such like, the two little horns that they put forth, serue them in stead of eies, as they found or trie the way before them. The earth-mads and all the sort of worms & grubs, are without eies. Men alone of all lining creatures haue eies of diuers colours, some of one, and some of another. For all other creatures of one and the same kind, are eied alike. Howbeit, some horses there be that extraordinarily haue *red eies. But in men it is hard to set down the infinit variety and difference in them: for some haue great glaring eies: others againe as little & as pin-^Hgling. Others also there be that haue them of a moderate and reasonable bignes. Some be goggle eied, as if they would start out of their heads, and those are supported to be dim-sighted: others be hollow eied, and they are thought to haue the best and clearest sight: like as they who for colour haue goats eien. Moreouer, ye shall haue some men, who can discern a far off: others againe that see not but neere at hand. Many there are, whose eiesight dependeth of the Sunnes light: for let the day be ouercast and cloudy, or the Sun gon downe, they see just nothing: and others contrariwise there be, that all the day time haue but a bad sight; yet in the night season they see better than any others. As concerning 2 balls or apples in one eie, as also who they be that can bewitch and hurt folk with their very eie, sufficient hath bin said already. *Gray eies commonly in the dark see more cleare than others. It is reported of *Tiberius Caesar* the Emperor I to haue had this property by himself, that if he were awakened in the night, for a while he could see euery thing as well as in the cleare day light; but soon after, by little and little, the darknesse would ouercast and shadow all again: a gift that no man in the world was euer known to haue but himselfe. *Augustus Caesar* of famous memory, had *red eies like to some horses: and indeed wall-eied he was, for the white thereof was much bigger than in other men: which also was the cause, that if a man looked earnestly vpon him, and beheld him wistly (and a man could not anger him worse) he would be displeased, & highly offended. *Claudius Caesar* had a fleshy substance about the corners of his eies, that tooke vp a good part of the white, and many times they were very red and bloud shorten. *C. Caligula* the Emperor, his eies were euer set in his head, and stiffe K as if he had a very short sight; for vnlesse he winked (as it were) and looked narrow with his eies, he could not well see ought, were it neuer so neere. Twentie couple of professed masters of fence and sword, plaiers there were in the fence-schoole, that *C. Caligula* the Emperor maintained: & among the rest two there were & no more, whom a man could not make to winke, or once to twinkle with their eies: present before them what weapon he would, or make offer to strike, so steady & firm were they: and therefore they euermore carried the prize, & were inuincible. So hard a matter is it for a man to keep his eies from twining: and many men naturally can- not chuse but be euermore winking and twinkling with their eies: but such are holden for fearful and timorous persons, None haue their eyes all of one color: for the ball or apple in the midst is ordinarily of another color than the white about it. Neither in any one part of the body are more signes and tokens to be gathered of the affection and disposition of the heart, than in the eie, of man especially about all other creatures. By it we may know whether one be modest, staied, sober, gentle, mild, pittifull or no. It sheweth malice, hatred, loue, hauntnesse, sorrow, and joy. In the cast also of the eie there is as much variety, for some haue a furious, cruell, terrible, fierce, sterne, and ferie looke: others shew grauitie and constancie in their eie. Some haue an ouerthwart regard with them, others looke askew and awry. One while a man looks atone- side, and hath a wanton sheeps eie: another while he casteth his eie downe, and looks heauily: and when he list againe, hee can giue one a pleasant and merry looke. In brieft, the Eies are the very seat and habitation of the minde and affection. For one while they be ardent and fie-^Lrie: otherwhiles they be bent and fixed vpon a thing: one while they twinkle, another time they winke close and say nothing. From them proceed the teares of compassion: When wee kisse the eie, we thinke that we touch the verie heart and soule. From hence commeth our weep-^Ming: from hence gush out those streames of water that drench and run downe the cheeks. But what might this water and humour be, that in the hearts grieve issueth in such plentie, and is so ready to flow? Where may it lie at other times, when we are in joy, in mirth, and repoe? it cannot

A cannot be denied, That with the Soule we imagine, with the minde we see, and the Eies as ves- sels & instruments receiuing from it that visuall power and faculty, send it soon after abroad. Hereupon it commeth, that a deep and intentive cogitation blinds a man so, that he seeth not; namely, when the sight is retired far inward. Thus it is, that in the Epilepsie or Falling-sicknes the eies are open and yet see nothing: for why? the mind within is darkened. Moreouer, Hares haue this qualitie, to sleep open eied: and so do many men besides them: and this the Greekes do expresse by the terme *nosucarniti*. Nature hath framed and compounded the eie, of many thin membranes or skins. As for those tunicles without-forth, they are tough and hard * like horn, to withstand the iniuries of heat and cold: and those she hath ordained estsoones to be clenfed and purified with the moisture of teares; to the end that they should be slipperie and mouea-^Bble, for to turne quickly and to shift from all that may offend. As for the middle part & mem- brane of the eie, she hath set in a ball, like a window made of transparent horne [or rather of a grape:] the little compasse whereof containeth all the sight of the Eie, and suffereth it not to wander and roll here and there, but directeth it as it were within a certaine pipe or small con- duit: by which means also (to note by the way) the apple being gathered into so narrow a circle, doth easily auoid all inconueniences that are incident vnto it, for to annoy the same. This ball and point of the sight is compassed also round about with other circles of sundry colors, black, blewish, tawny, russet, and red; to the end that by this medley and temperate mixture of colors enuironed with the white besides, the light might be let in & represented to the Optick-sinew: and also by a temperat reuerberation and beating backe from those other colours, it should not dazle or offend the apple with the exceeding brightnesse thereof. In sum, this mirror or glasse-^C window, is so perfect and so artificially contriued, that as little as the ball of the sight is, a man may see himselfe full and whole in it. And this is the cause that many fouls, from a mans fist are ready to peck at the eies aboue all other parts, for that they would gladly sort and draw vnto their owne representation and image, which they see in the eies, as vnto that which they natu- rally affect. Certain sumpter-horses and mules, & such like beasts of carriage only, are troubled with sore eies, and diseased that way at euery change and increase of the Moon. But man alone, in the catarrha & suffusion of the eie, by voiding from it a certain humor which troubled the sight, doth recover and see again. There haue bin many known blind 20 yeares and more, & yet afterwards inioied the benefit of their eies. Some haue bin borne blinde, without any fault or defect of their eies. Diuers men likewise haue suddenly lost their sight by some secret accident, and no outward offence knowne to giue occasion thereof. Many right skilfull masters in Chi-^D rurgie, and the best learned Anatomists are of opinion, That the veines of the eies reach to the braine. For mine owne part, I would rather thinke that they passe into the stomacke. This is certain, I neuer knew a mans eie plucked out of his head, but he fell to vomiting vpon it, & the stomack cast vp all within it. We that be citizens of Rome, haue a sacred and solemne manner and vse among vs, To close vp their eies that lie a dying, and are giuing vp the Ghost; and when they be brought to the Funerall fire, to open them againe. The reason of this ceremonious cus- tom, is grounded hereupon, That as it is not meet for men alieue to haue the last view of a mans Eie in his death, so it is as great an offence to hide them from heauen, vnto which this honor is due, & the body now presented. Man alone is subiect to the distortion & depraued motion of his eies. Hereof are come the surnames of certain families in Rome, *Strabones* & *Patti*: for that the first of those houses were squint-eied, and had rolling eies. Those that were borne blink but with one eie, our countrymen called *Corbites*: as also them that were pinke-eied and had very small eies, they termed *Ocelle*. As for such as came by those infirmities by some iniurie or mis- chance, they were surnamed *Lucini*. Moreouer, we see that those creatures which ordinarily do see by night (as Cats do) haue such ardent and ferie eies, that a man cannot indure to look full vpon them. The eies also of the Roe-bucke and the Wolfe are so bright, that they shine againe, and cast a light from them. The sea-calues or Seales, and the Hyenes, alter estsoones their eies into a thousand colours.ouer and besides, the eies of many fishes do glitter in the night, when they be drie: like as the putrified and rotten wood of some old trunk of an oke or other wood. Wee haue said before, that those winke not nor shut their eie-lids, who cannot roll their eies atone side, but are faine to turne their whole head withall when they would see a thing that is not iust before them. The Cham-eleons (by report) rol their eies all whole euery way as they list, yp and downe, toe and fro. Crabs looke awrie. And yet such fishes as are inclosed within a brittle

out of themselves. As for the farthest cheek-teeth in a mans head, which be called *Genuini*, [i. G the Wit-teeth] they come about the time that he is 20 yeares old, and in many at 80 yeares of age. Sure it is, that those teeth fall from women in their old age, and soone after come againe: such women I meane, as had no children in their youth. And *Mutianus* hath reported, That hee saw one *Zancles* a citizen of Samothrace, who had new teeth comming vp after he was an 104 yeares old. Moreouer, males ordinarily haue more teeth than the females: as we may see in man-kind, Sheep, goats, and Swine. *Timarchus* the son of *Nicoles* the Paphian, had a double course of teeth in either jaw. He had a brother also who neuer cast his foreteeth, and therefore hee wore them before to the ver: stumps. We reade in Chronicles of one man that had a tooth growing out of the very pallat of his mouth. As for the eye-teeth, if they be lost by any mischance, there neuer grow again any other for them. In horses only, of all other creatures, teeth wax whiter by age: for in the rest, they turne to be browne and reddish. The age of Horses, Asses, and Mules, is knowne by a marke in the teeth: a horse hath in all 40. At the end of 30 moneths, hee loseth his fore teeth of either chaw, as well aboue, as beneath: the yere following as many, euen those that be next, namely at what time as they put out those which be called the cheek teeth. At the beginning of the fifth yere, he loseth other two, but there come vp new in the place in the sixth yere. By the seventh yere he hath all, as well those that should come in others place, as those which are firme and neuer change. A guelding neuer casts his teeth, no not his sucking teeth, in case he were guelded before. Asses in like manner begin to shed their teeth at the 30 moneth of their age, and so forward from 6 moneths to 6 moneths: and if they sole not before they haue shed their last teeth, they are for certaine to be holden barren. Kine and Oxen, when they be two yeres old, do change their teeth. Hogs or Swine neuer haue any teeth to fall. Now when as these marks are gon out, which shew the Age of Horses, Asses, and such like, yee must (to know their age) go by the ouergrowth & standing out of the teeth, the greinesse of the haire ouer their brows, and the hollow pits thereabout: for then are they supposed to be 16 yeares of age. As touching men, some are thought to haue venome and poison in their teeth: in so much, as they be shewed bare and naked against a cleare mirror or looking glasse, they wil dimme the beauty thereof, yea, and kill yong pigeons whiles they be calow and vnplumed. But forasmuch as we haue spoken sufficiently of teeth, in our treatise as touching the generation of Man, wee will passe ouer the rest, and proceed vnto other parts, saue onely that this is to be obserued and noted, How children be sicke when they be about breeding of their teeth. And to conclude, of all other creatures, those are most dangerous with their Teeth, which haue them framed like sawes, and closing one betweene another.

The Tongue.

Now as concerning Tongues, we obserue much diuersitie in them: for all creatures are not tongued alike. First and formost, Serpents haue very thin tongues, and the same three-forked; blacke of colour, shaking, and ready to pierce; and if a man take them forth, very long. Lizards haue tongues two-forked and full of haire: so haue the Seales or Sea calues a double tongue: but the tongues of these beforenamed, are as small as haire: as for the rest, their tongues serue them to licke their muffles and lips all about. Fishes haue their tongues for the greater part therof, cleaving fast to their pallat; and in Crocodiles they are so, clean throughout. But as well fishes as other creatures of the water, haue a fleshy palat, which serues them in stead of a tongue to tast withall. Lions, Libards, and all of that sort, yea and Cats, haue their tongues rough and vneuen, made like a file with many small edges lapping one ouer another: in such sort, as that with licking it wil weare the skin of a man so thin, that their spittle and moisture when it cometh neare vnto the bloud and the quick, will driue oftentimes into rage and madnesse, those whom they so licke, yea although otherwise they be made tame and gentle to come to hand. As touching the tongues of Purple fishes we haue written already. Frogs haue their tongues in the forepart fast to the mouth: the hinder part within toward their throat, is free and at liberty, whereby they keep that croking which we heare at one season of the yere; namely, when the males cal to the femals for to ingender; & then they be called *Olalygones*: for at that time they let down their nether lip somewhat vnder the water, that they gargle with their tongue leuell to the water, which they receiued into their throat: and so while their tongue quauereth withall they make that croking noise abovesaid: he that would looke then aduisedly vpon them, should see their specks so swoln and stretched out full, that they will shine againe: he should perceiue, their eies ardent and fierie with paines that they take thus with the water. Those creatures that haue

A haue pricks and stings in their hin-parts, are furnished also with tongue and teeth. As for Bees, their tongue is very long, and the Grasshoppers put it forth a good way. They that haue a fistulous sting or pricke in their mouth, are prouided neither of teeth nor tongue. In some Insects, (as namely Pismires) the tongue lieth close within. Elephants, aboue all other beasts, haue a large and broad tongue. All creatures haue their tongue loose and at libertie at all times, each one in their kind: man only is oftentimes so tongue-tied, that needfull it is to cut certain strings and veines for to ease it. *Metellus* the high priest and chiefe sacrificer at Rome, had such a sturring and stammering tongue (by report) that against he should dedicate the temple of the goddess *Opifera*, he labored so with his tongue for vterance, for certaine moneths together, & took such pains, as if he had bin vpon the racke. All children, by that time that they be seuen yeares old at the farthest, speake readily, so as they be not by some vnnatural cause impeached. But some men there be, which haue their tongues so at commandement, and so artificially they can handle it and their throat together, that they are able to counterfeite the singing of all birds, and the voice of any other creature, that one cannot know and discerne them afunder. As touching Taste, which is the iudgement of meats and drinks, to wit, What smack and tallage they haue, all other liuing creatures find it at the tip of their tongue only: but man tasteth as wel with the pallat or roose of his mouth. The spongeous kernels, which in men be called *Tonsillæ*, or the Almonds, are in swine named the Glandules. That which betweene them hangeth downe from the inmost part and roose of the mouth, by the name of the *Vvula*, is to be found in man onely.

Vnder it, there is a little tongue (which the Greekes call *Epiglossis*) at the root of the other: *The flap Epiglossis.* and the same is not to be found in any creature that laieth eggs. A twofold vse it hath, lying as it doth between the two pipes. Whereof, that which beareth more outward, and is called *The rough Arterie*, or the *Windpipe*, reacheth vnto the lungs and heart. And as a man doth eat and swallow downe his meat, this foresaid little flap doth couer it, for feare lest as the spirit, breath, and voice passeth that way, the meat or drink (if it should go wrong to the other conduit or passage) might indanger a man and put him to great trouble. The other is more inward, called properly the *Gullet*, or the *Wezand*, by which we swallow down both meat and drink, and it goeth to the stomacke first, and so to the belly. This also the said flap doth couer by turns, to wit, as a man doth either speake or draw his breath, lest that which is already passed into the stomacke, should come vp againe, or be cast vp vnseasonably, and thereby impeach a man in his speech: the *Windpipe* consisteth of a gristly and fleshie tunicle: the *Wezand* of a membranous or sinewie substance and flesh together.

There is no creature hauing a necke indeed, but it hath also both these pipes. Wel may they haue a gorge or throat, in whom there is found but the gullet only: but nape of neck behind, they can haue none. As for those vpon whom Nature hath bestowed a neck, they may with ease turn their head about too and fro euery way, to looke about them, because it is composed of many spondyles, or turning round bones, tied and fastened one vnto another by ioints and knots. The Lion only, together with the *Wolfe*, and the *Hyæna*, haue this necke bone of one entire and straight peece, and therefore stiffe that it cannot turne. Otherwise it is annexed to the chine, and the chine to the loines.

This *Chine* likewise is a bony substance, but made round and long, and fistulous within, to giue passage to the marrow of the backe, which descendeth from the brain. Learned men are of opinion, That this marrow is of the same nature that the braine is: and they ground vpon this experience, That if the thin and tender skin that incloseth it be cut through, a man cannot possibly liue, but dieth immediately. All creatures that be long legged, haue likewise in proportion as long necks. So haue also water-fouls, although their legs be but short. But contrariwise, yee shall not see any birds with long necks, that haue hooked tallons. Men onely and Swine, are troubled with the swelling bunch in their throats: which many times is occasioned by corrupt water that they drinke. The vpper part or top of the *Wezand*, is called the *Gorge*, or the gullet: the nether part or the extremitie thereof, is the *Stomacke*. There is another fleshie concutitie of this name, vnder the windpipe, annexed to the chine-bone: long it is and wide, made in fashion of a bottle, flagon or rather a gourd. Those that haue no gullet, are also without a stomack, a necke, and a wezand, as fishes: for their mouths and bellies meet. The sea Tortoise hath neither tongue nor teeth: with the edge of his muffle (so sharpe it is) he is able well enough to chew all his victuals.

The Stomack.

Vnder the Arterie or wind-pipe, is the mouth of the stomacke; of a callous or gristly substance, thicke toothed, with prickles in manner or a bramble, for the better dispatching of the meat: and these notches or plaits grow smaller and smaller, as they approach neerer to the belly: so as the vtmost roughnesse thereof in the end is like vnto a Smiths file.

The Heart.

Now are we come to the Heart, which in all other liuing creatures, is scituate in the very midst of the brest: in man only it lies beneath the left pap, made in maner of a pearce, & with the pointed and smaller end beareth out forward. Fishes alone haue it lying with the point vppward, to the mouth. It is generally receiued and held, that it is the first principall part which is formed in the mothers wombe: next vnto it the braine, and the eies last of all. And as these be the first that die, so the Heart is last. In it (no doubt) is the most plenty of heat, which is the cause of life. Surely it euer moueth and panteth, like as it were another liuing creature by it selfe: considered it is within-forth with a very soft, yet a strong tunicle, that enwrappeth it: defended it is besides with a strong mure of ribs, and the brest bone together: as being it selfe the principall fortresse and castle, which giues life to all the rest. It contains within it certaine ventricles and hollow receits, as the chiefe lodgings of the life, and bloud, which is the treasure of life. These in greater beasts are 3 in number: & none there is without two. This is the very seat of the mind and soule. From this fountain there do issue 2 great vessels, master-veins or arteries, which are diuided into branches: & being spread as wel to the fore-part as the back parts of the body, into smaller veins, do minister vitall bloud to all the members of the body. This is the only principall part of the body that cannot abide to be sick, or languish with any infirmity: this lingereth not in continuall pain: no sooner is it offended, but death insueth presently. When all other parts are corrupt and dead, the Heart alone continueth alieue. All liuing creatures that haue an hard & stiffe heart, are supposed to be brutish: those that haue small Hearts, be taken for hardy and valiant: contrariwise, they are reputed for timorous and fearfull, which haue great Hearts. And the biggest Heart, in proportion of the body, haue Mice, Hares, Asses, Deere, Panthers, Weasels, Hyænes; & in one word, all creatures either by nature fearefull, or vpon feare hurtful. In Paphlagonia, Partridges haue two Hearts. In the Hearts of Horses, Kine, Bulls and Oxen, are otherwhiles bones found. The Heart in a man groweth yerely two drams in weight, vntill it be 50 yeares of age: and from that time forward it decreaseth from yere to yere as much: whereupon he is not able to liue aboue 100 yeares, for want of Heart: as the Egyptians be of opinion; whose manner is to preferue the dead bodies of men spiced and embalmed. It is reported of some men, that they haue hearts all hairy: and those are held to be exceeding strong and valorous. Such was *Arisfomenes* the Messenian, who slew with his owne hands * 300 Lacedæmonians. Himselfe being fore wounded and taken prisoner, saued his owne life once, and made an escape out of the caue of a stone quarrie, where he was kept as in a prison: for hee got forth by narrow Fox-holes vnder the ground. Being caught a second time, whiles his keepers were fast asleep, he rolled himselfe to the fire, bound as he was, and so without regard of his owne bodie, burnt in sunder the bonds wherewith he was tied. And at the third taking, the Lacedæmonians caused his brest to be cut and opened, because they would see what kind of Heart hee had: and there they found it all ouergrown with hair. Moreover, this is obserued in perusing the inwards of beasts, That when they be wel liking, and do preface good, the Heart hath a kind of fat in the vtmost tip thereof: howbeit, this would be noted, That according to the Soothsaiers learning, their Heart is not alwaies taken for a part of the bowels or intrails: for after the 123 Olympias when *Pyrrhus* king of Epyrus was departed out of Italy, what time as *L. Posthumus Albinus* was king sacrificer at Rome, the Soothsaiers and Wisards began first to look into the heart, among other inwards. That very day when as *Cæsar* Dictator went first abroad in his roiall purple robe, and tooke his seat in the golden chaire of estate, he killed two beasts for sacrifice, & in both of them the intrails were found without any Heart: whereupon arose a great question and controuerse among the Augures and Soothsaiers, How it could be, that any beast ordained for sacrifice should liue without that principall part of life: or whether possibly it might lose it for that present only: Ouer and besides, it is held for certaine, that if any dye of the trembling and ache of the heart, or otherwise of poison, their heart will not burne in the fire. And verily, an Oration there is extant of *Vitellius*, wherein he challengeth *Piso*, and chargeth him directly with Poysoning of *Germanicus Cæsar*, vpon this presumption; for he openly protested and proued, That the heart of *Germanicus* would not consume in the funerall fire, by reason of poyson. But contrariwise,

* In three sundry battels.

The Lights or Lungs.

A riwife, *Piso* alledged in his own defence the foresaid disease of the Heart, called Cardiacā, whereof as he said *Germanicus* died.

Vnder the Heart lie the Lights, which is the very seat of breathing: whereby we draw and deliuer our wind. For which purpose, spongyous it is and full of hollow pipes within. Few fishes, as we said before, haue any Lungs: other creatures also that lay eggs, haue but smal, and the same full of froth, and without bloud: wherupon they be not thirsty at all: which is the cause likewise that Seales and Frogs can diue so long vnder the water. The Tortoise also, albeit he haue very large Lungs, and the same vnder his shell, yet there is no bloud therein. And verily, the lesser that the lungs be, the swifter is the body that hath them. The Chamæleons lights be very big, for the proportion of his body, for little or nothing els hath he within it.

The Liuer.

Next followeth the liuer, which lies on the right side. In that which is called the head of the Liuer, much varietie and difference there is. For a little before the death of *Marcellus* (who was slaine by *Annibal*) as he sacrificed, there was found a Liuer in the beast, without that head or fibres aforesaid: and the next day after, when he killed another for sacrifice, it was seen with two. When *C. Marius* sacrificed at Vtica, the same was likewise wanting in the beast, being opened. Semblably, when prince *C. Caligula* the Emperor sacrificed vpon the first day of Ianuarie, at his entrance into the Consulship, the Liuer head was missing: but see what followed! in that yeare his hap was to be slaine. Moreover, his successor *Claudius* within a month before he died by poyson, met with the like accident in his sacrifice. But *Augustus Cæsar*, late Emperor of famous memory, as he killed beasts for sacrifice, the very first day that he entred vpon his imperiall dignity, found in 6 of them 6 liuers, which were all redoubled & folded inward, from the nethermost lobe or skirt beneath: wherupon answer was made by the Soothsaiers, That within one yere he should double his power and authority. The foresaid head of the Liuer, if it chance to be slit or cut, prelageth some euill hap, vnlesse it be in case of feare and pensiuenesse: for then it betokeneth good issue, and an end of care and sorrow. About the mountaine Brilerum and Tharne; also in Chersonesus neere vnto Propontis, all the Hares ordinarily haue two Liuers: and (a wonderous thing it is to tell) if they be brought into other countries, one of the said Liuers they loose.

The Gall.

Fast to the Liuer hangeth the Gall; yet all creatures haue it not. And about Chalcis in Eubœa, the sheep are quire without Gall. But in Naxos they all haue two Galls, and the same very big. The strangers that come into both those parts, think the one as prodigious & monstrous as the other. Horses, Mules, Asses, Deere both red and fallow, Roe-bucks, Swine, Cammels, and Dolphins haue no Gall. Some Mice and Rats there be which haue it. And few men there are without, howbeit, such are of a stronger constitution, more healthfull, & longer liued. Howbeit some are of opinion, That all horses haue Gall, not annexed to their liuer, but within their bellie: and as for the Deere abouesaid, it lieth (as they think) either in their taile, or els their guts: which (by their saying) are so bitter, that hounds and dogs by their good wils would not touch them. Now this Gall is nothing els but an excrement purged from the worst bloud: & therefore bloud is taken to be the matter thereof. Certain this is, that no creatures haue Liuers, but such as likewise haue bloud. And in truth, the Liuer receiueth bloud from the heart, vnto which it is adioined, and so conueigheth and distributeth it into the veins. Black choler lying in the Liuer causeth fury and madnesse in man: but if it be all cast vp by vomit, it is present death: hereupon it commeth, that we terme furious and raging persons by the name of cholericke, or full of Gall: so great is the venome of this one part, if it reach once to the seat of the mind, and possesse it. Nay more than that, if it be spread and dispersed ouer all parts of the body, it infecteth it with the yellow jaundice; yea, and coloureth the very eies, as it were with Saffron. Let it out of the bladder or bag wherein it is, ye shall see it stain vessels of brasse, yea, they wil begom black againe, and lose their brightnesse if they be touched therewith. No maruell then if the venome and poison of serpents, proceed from the Gall. They that vse to feed of worme-wood, growing in Pontus, commonly haue no gall. Rauens, Quailles, and Feasants, haue their gall ioining to their kidnies, or rather to their guts, of one side and no more: and some to the guts only, as Pigeons, Haukes, and Lampreies. Few birds there be that haue gall in the Liuer. As for Serpents and Fishes, they haue the greatest galls of all others, for the proportion of their bodies. Most of them haue their gall along their guts throughout, in manner of the Hauke and the Kite. Moreover, in all Whale fishes their gall is fastened to the liuer: and so, we see it lieth in the Seales, whole

whose Gall is singular good for many purposes. Oxe Gall in limming giueth a golden colour: G
The Soothsaiers haue dedicated it to *Neptune*, & the mighty power of water. *Augustus* the Em-
peror found two Galls in a beaft that he killed for sacrifice, vpon that very day whereon he ob-
tained that famous victorie at Actium. Some say, that the lobes or fibres in the smal Liuers of
certaine Mice and Rats, are commonly found to be as many as the Moone is daies old in euery
moneth: and looke how many daies you reckon of her light, so many may you count the fibres
aforefaid. Also, that their liuer groweth at mid-winter, when daies be at shortest. In the king-
domes of Grenada and Andalusia in Spaine, Connies are many times found with double Li-
uers. The land Frogs of Toads kind, haue one lop or lappet of the liuer, which Ants will not
touch, because of the poison therein, as is supposed. Liuer of all things may be kept and prefer-
ued longest: and we reade in chronicles, that there haue bin found in some cities long besieged, H
Liuers in salt or powder, which had continued a 100 yeres. Serpents and Lizards haue long Li-
uers. In that sacrifice which *Cesna Volaterranus* killed, Dragons were seen to issue from among
the Entrails and the Liuer; and this turned to be a lucky presage. And verily, why should wee
think this report or any other in sacrifices, to be incredible? considering that vpon the very day
that *K. Pyrrhus* was slain, the heads of the beafts being slain for sacrifice (notwithstanding they
were cut off from the bodies) moued forward vpon the ground, and licked vp their owne
bloud.

The Midriffe

The vpmost inwards of a man, to wit, the Heart and Lungs, are diuided from the other en-
trails beneath, by certain pellicles or rims of the Midriffe, which the Latines call *Præcordia*,
(because they are drawne and set before the Heart as a defence:) and the Greeks *Phrenes*: true I
it is, that Nature in great prouidence hath inclosed all the noble and principal parts within fei-
uerall skins and coats of their owne, which might serue in stead of sheathes and cases for their
better defence: but in this partition of the Midriffe, shee had a more particular regard to the
propinquitie of the Stomack and Belly, lest that the vitall parts being so neare, should be op-
pressed and suffocated with the streams and vapors of the meat therein boiling. To this parr are
we beholden for our quick wit, this membrane of the Midriffe we may thank for our ready con-
ceit and vnderstanding: to which effect, charged it is with no fleshe, but composed of fine & sub-
tile finews. The same likewise is the very especiall seat of mirth: as we may perceiue euidently
by tickling vnder our armeholes, vnto which it reacheth: and as in no place of mans body the
skin is more fine and tender, so it taketh as great pleasure to be tickled and lightly scratched K
there. And herupon it is, that in solemne combats of sword-fencers at vtterance with the sharp,
as also in field battels, we haue many a time seen men wounded and thrust through the Mid-
riffe, to die laughing.

The Bellie or
Pannch, with
the Guts.
* Aristotle saith
fourfold.

To proceed in our Anatomy, all creatures hauing a Stomack or Read, are not without a bel-
ly vnder it. As many as chew cud, haue the same * double or two fold, the rest one and no more:
and looke who want bloud, are without it also. For some there be that haue one entire gut, that
beginneth at the mouth, and by a certaine way redoubleth and returneth backe againe thither,
and namely, the Cuttrill and the Polype. In man it is annexed to the bottome of the Stomack,
like as in a Dog. And in these twaine onely, narrower it is in the lower part: which is the cause
that none but they do vomit; for when their bellies be full, the straight passage beneath keepe L
the meat from descending, and so it returneth vppward: which cannot happen to them that haue
it wide and large, whereby the meat is sooner sent downe into the guts beneath. Next to the
bag of the Stomack, men and sheep haue the small guts called *Lactes*, through which the meat
passeth: in others it is named *Ile*. Next vnto which are the greater guts, that reach into the
Paunch: and in man they are full of windings and turnings: which is the reason, that as many
as haue a great space between the Stomacke and the Paunch, are more hungry and greedy of
meat than others. And those who haue the fattest and most greasie bellies, most commonly
are the grossest of capacity and vnderstanding. Some fouls likewise haue a two-fold receptacle
for their meat: the one is the gizzer, craw, or gorge, wherein they bestow at the first their meat
when they take it new: the other is the true stomacke indeed; into which they send out of the M
former, the victuals already altered, prepared, and in good forwardnes of concoction. And such
be Hens and Pullet, Coits or Stock-doues, House-doues, or Pigeons, and Partridges. All the
rest in manner want the said gizzer, but in stead thereof haue a wider gorge, where-through the
meat passeth into the stomack, as Choughes, Rauens, and Crowes. Some againe there be that
haue

A haue neither one nor other, but be far different from the rest, and these haue their bellie hard to
their gorge: and especially such as haue long neckes and narrow, as the bird *Porphyrus*. The
paunch or bellie of those beafts which are whole housed, is hard and rough. And in land beafts,
it is in some thicke toothed, and set full of sharp prickles: in others it is framed rugged likewise,
plaited crosse in manner of lattice, readie to catch and bite whatsoeuer. Those which haue not
teeth in both chawes, nor yet chew cud, do in this bellie concoct and digest their victuals, and
out of it they send the meat into the paunch where the guts lie. This member, in the mids, is in
all creatures fastened to the nauill: and in man it is like vnto that of a swine, hauing toward the
neather part, a great gut named *Colon*: and this is it, which giues occasion to the intolerable
paine of the colique. This Gut in dogs, is very streight and narrow, whereupon they haue much
B adoe to discharge it, and lightly they doe not skummer, but with great paine and difficultie.
Those creatures of all others be counted most vnstable, whose meat passes immediately out
of their bellie into the straight gut *Longaon*, or the *Tiwill*: as among foure-footed beafts, the
Wolfe, engendred betweene the Hind and a hee-Wolfe: and in foules, the Cormorant. An E-
lephant hath foure bellies or paunches: all other parts within, be answerable to those in Swine.
Their lungs be foure times as big as those in an Oxe. The gorge or craw, and the stomacke or
gizier in birds, is the thicke and fleshie. In the maw or stomack of Swallows young birds, there
be some certaine little white stones, or else of a reddish colour, called thereupon *Chelidonij*:
and they be in great request in Art-Magicke, namely for charmes and enchantments. Likewise
in the second bellie or paunch of yong Heifers, there is found a small, black, and gravelly stone
round as a bal, and light withall: a singular remedie (as it is thought) for women that haue hard
C labour and be deliuered with much paine & difficultie, so it be taken before that euer it touch
the ground. The Stomacke and the Guts, are kept within a fat and thin cawle, in all creatures
but those that lay eggs.

The Cawle
or Kell.

Vnto this Cawle, is fastened the Spleene on the left side of the belly just against the liuer.
And otherwhiles these two shift their places, and one lies where the other should; but that is
euer held as a prodigious token. Some are of opinion, that those creatures which lay eggs haue a
Spleene, but it is very smal: as also the Serpents. And surely such an one appeares plainly in the
Tortoise, Crocodile, Lizards, and Frogs. Certaine it is, that the bird *Ægocephalus* hath none
at all, no more than others that want bloud. This member hath a propertie by it self sometimes,
To hinder a mans running: whereupon professed runners in the race that be troubled with the
D spleene, haue a deuise to burne and wast it with an hot yron. And no maruell: for why? they say
that the Spleene may be taken out of the bodie by way of incision, and yet the creature liue ne-
uerthelesse: but if it be man or woman that is thus cut for the Spleene, hee or shee loseth their
laughing by the means. For sure it is, that vntemperate laughers haue alwaies great Splenes.
In *Scepis* (a countrey of Asia) the sheep haue very small Splenes, and from them were deuised
the remedies to cure the disease thereof, and to wast their excessiue greatnesse.

The Splene.

But about *Breletum* and *Tharne* (the hills abouenamed) the Deer haue foure Kidnies apeece:
whereas on the contrarie side, neither feathered fowle nor skalie fish, haue any. Moreouer, the
Kidnies sticke close vnto the bones. The right Kidney in all creatures is the bigger, lesse fat,
dryer of the twaine: howbeit in both of them, there is a fat issuet out of the mids, saue only in
E Seales. All liuing creatures are fattest about the raines of the backe: and sheep may be so far
ouergrowne with fat, that they will die thereof. Sometime there be little stones found within
them. All four-footed beafts that bring forth their yong quick, haue kidnies. And of such as lay
eggs, the Tortoise alone, which also hath all other entrails. The Kidnies of a man, be like to those
of Kine and Oxen, as if they were composed of many together.

Kidnies.

Nature hath imbarred the Breast-parr (wherin lie the vitall members) with ribs round about:
but toward the belly (which needs must grow and stretch) she hath not so done, but hath giuen
it libertie: for no liuing creature hath bones to compass the panch. Mans Breast only is broad
and square: in all others it is framed otherwise, like the keele of a ship: which is more eident-
ly to be scene in birds and in water-fowles most of all others. As for Ribs, man only hath eight
F that be full and whole: Swine haue ten: horned beafts thirtene: Serpents thirtie.

Breft & ribs.

Vnder the belly and paunch in the fore-part of the bodie, hangeth the bladder: which no
creature laying eggs hath, saue only the Tortoise. It is found in none but such as haue a paire of
lungs, and the same with bloud: neither in any creeping creature without feet. Betwene it and
the

The Bladder.

the belly be certaine canals or arteries, reaching to the groine, which by the Greeks are named *Gilia* [i. the Flanks.] In the bladder of a Wolfe, is found a little stone called Syrites. But in some mens bladders, ye shall see otherwhiles certaine grosse haire to engender, like to bristles; also grauell and stones, which put them to intollerable paine. This bladder consisteth of a certaine tunicle or skin, which if it be once wounded, cannot againe be consolidated; no more than those fine pellicles or rinds that enwrap the braine and the heart. For you must thinke, that there be many forts of these membranes or filmes seruing to sundrie vses.

The Matrix

As for women, their inward parts are answerable to mens in all these respects abovesaid: and besides, they haue by themselves adjoyning close vnto the bladder, another little bag or purse; whereupon it is called in Latine *Vterus*: and it hath another name beside, to wit, *Locis*; which we call the Matrice, the Mother, or the Wombe: and in other creatures it is tearmed *Vulua*. In Vipers, and such as hatch their eggs within them it is double. In those that lay eggs, it lyeth fast to the Midriffe. In women, it hath of either side two chambers or concavities. If at any time it chance to be peruered and turned the wrong way, or take aire into it, it is deadly, and riseth vp to stop the wind. If Kine be with Calfe, men say, they carrie not their yong but in the right cell or receptacle thereof, yea, although they goe with two Calues at once. Our fine-toothed gluttons do find a better tast in a Sows wombe that slips and casts her Pigs and it together, or is cut out of her belly, than if the dam bringeth forth her fruit at full time. The one forsooth is called Ejecticia, the other, Porcaria. And the best is that of a yong Sow that neuer farrowed before: and contrariwise, of old Sows and such as haue giuen ouer to farrow. After she hath pigged, vnlesse she be killed the same day, the same hath a dead color, and is but leane. And yet that of a young Swine is not greatly commended, vnlesse it be of her first Pigs. Howbeit, those of old Sows also be in request, so they haue not giuen ouer breeding: and namely, if they be taken either within two daies before they should pig, or within two daies after they haue pigged, or at leastwise, the very same day. The next to the cast-wombe abovesaid, is that of a Sow killed a day after she hath pigged. The paps and teats of such a Sow, newly hauing farrowed, is counted excellent good meat, so that it be taken before euer the Pigs sucked them drie: but those of a Sow which hath cast her pigs before time, is held for the worst of all. In old time they called this morcell in Latine *Abdomen*, and before it was growne hard and brawnie, they neuer were wont willingly and wittingly to kil Sows, * euen vpon the point of their farrowing, and being readie to Pig [as our monstrous gluttons doe now adaies, because they would haue the teats soft, tender, and full of milke.]

* Ancients

Tallow and greafe.

All horned beafts hauing teeth growing but in one jaw, and pasterne bones about their feet, do beare tallow or fewet, and feed fat. Those that be clouen-footed, or otherwise haue feet diuided into many toes, and beare no horns, haue no tallow, but greafe or fat. The tallow or fewet growes to be hard, and when it is thoroughly cold, is brittle and apt to crumble and breake; and is euer found in the edge and extremities of the flesh: contrariwise, the seam or greafe is entered betweene the flesh and the skin; liquid it is, and easie to melt. Some creatures there bee that will neuer be fat, as the Hare and Partridge. Generally, whatsoeuer is barren, be it male or female, will soone feed fat. Sooner grow they to be old which are ouer-fat. No liuing creatures there are but haue a certain fat in their eies: & the tallow in any thing whatsoeuer, is senslesse: for neither hath it Arteries nor Veines. The fat also & greafe in most of them, is without sence. And hereupon it is, That some affirme, how Mice and Rats haue gnawne and eaten fat Hogs whiles they were aliue, and made them nests in their backs: yea, and *Lucius Apromius* sometimes Confesseth, had a sonne so fat that he could not goe, so heauie was he laden with greafe; inso much, as he was faine to take some of his greafe forth of the bodie, and so discharge himselfe and become lighter.

Marrows

Marrow seemeth to be much of the same natre: in youth it is red, and in age waxeth white. This is neuer found but in hollow bones: and yet not in the legs of Horse, Ass, Mule, or Dog. And therefore if they chance to be broken, they will not sower and vnite againe, which happens when the Marrow runs out to the place of the fracture. In those that carrie greafe or fewet, fattie it is and greafie: but in horned beafts it resembles Tallow. Sinewie it is, and that onely in the ridge of the backe of as many as haue no bones, as namely, in all fishes. Beares haue none at all. A Lion likewise hath but very little, to wit, in some few bones of his thighs & butts behind, and also of his legs before vnder his shoulders. For his other bones are so hard, that they will strike

A strike fire, as it were an hard flint. The Marrow is hard in them that gather no greafe, but rather tallow.

The bones of Asses legs are good to sound shrill, and to make pipes of. Dolphins haue verie bones, and not prickie chines: for they bring forth their yong aliue. Serpents haue onely prickie ridges. Fishes that be soft haue no bones: but their bodie is bound with certaine hoops or circles of flesh, as the Cuttill or Calamarie. Neither haue Insects any bones at all. Those fishes which be not soft, but gristly, haue a kind of marrow in their ridge bone. Scales haue gristle, and no bone. The eares and nofethrils of all creatures, if they beare vp but a little, haue a soft tender gristle apt to bend and wind: such is the goodnesse of Nature, providing that they should not breake. A gristle if it be broken, will not close together and be found. Neither will bones, if ought be cut from them, grow againe: vnlesse it be in horses and such beafts of carriage, and namely, betweene the house and the pasternes.

Bones and Gristles.

A man Groweth in height and length vntill hee be one and twentie yeares of age: then begins he to spread and burnish in squarenesse. As well men as women-kind, shute vp most and vndoe the knot that hindered their growth, when they are come to fourteene yeares of age, and be vndergrowne: and most is this scene, if some sicknesse happen about that time.

Growth.

As for the Sinewes, Ligaments, and Cords, which take their beginning at the heart, be couered (as it were) with a certain white and glutinous substance; and the like cause and nature they haue. These in all bodies, are tied to the slipperie bones: the knitting of the bones together, which be called joints, they fasten and bind together, some by comming betweene, others by clasping round about, & others again, by passing crosse ouer: in one place they be twined round, in another broad, according as the figure of each part doth require. Be they cut a two, as they cannot knit againe, so they put a man to no paine: prickie or wound them, a wonder to see, what extremitie of paine will thereupon ensue. Some creatures be without nerues and sinewes, as namely fishes, for they stand much vpon Arteries, and yet ye shall haue neither the one nor the other in soft fishes. Look where there be Sinewes, Cords, and Ligaments, those that lie more inward and vnderneath, stretch out the part and giue libertie: whereas the vppermost that lie ouer them, draw the same in as much.

Sinewes, Cords & ligaments

Among these are hidden the Arteries, that is to say, the passages of the spirit and life. And ouer them ride the Veines, euen the very conduits and channels that carie the blood. The Pulse or beating of Arteries, is most euident in the extremities or ends of any members; and for the most part bewraies hidden diseases. *Hexophilus* that renowned Poet and interpreter of Physick, hath with marvellous skill reduced the order thereof into an art: he hath set downe most artificially, the certaine measures and times, the compasse, the metrical lawes thereof, according to euery age: when they strike euen and steadie, when too fast, when too slow. But the skill herof is little exercised, and his inuention in that behalfe neglected: because it seemed ouerwittie, subtle, and curious. Howbeit, the obseruation of the strokes, either comming thick & fast, or slow and softly, giueth a great light to iudge of the strength of Nature, that gouerns our life. Arteries want sence, and no marvell, for they be without blood. Neither do they all containe within them vitall spirit. For there haue bene knowne some of them cut in twaine, and yet that part of the body only is mortified, which receiued the offence. Birds haue neither Veines nor Arteries. Likewise, Serpents, Tortoises & Lizards, haue but very little blood. The Veines disperfed at the last into most fine and small threadie fibres vnder all the skin, grow at the length to bee so slender that the blood cannot possibly passe thorough them, nor any thing else: saue a thin humor or moisture, which thorough infinite small pores of the skin doth breath forth, and stands there like a dew, and is called Sweat. The place where all the Veines doe meet in a round knot together, is the Nauell.

Veines and Arteries.

CHAP. XXXVIII.

¶ Of Blood, as well that which soonest waxeth drie, as that which will not thicken at all. Also, which is the grossest blood, and heauiest, which the lightest and thinnest: and last of all, what creatures liuing haue no blood at all.

Those that haue much blood, and the same fat and grosse, are angrie and cholericke. The blood of males is commonly blacker than that of females: yea, and more in youth than in old

old age: and the same in the bottome and lower part, setleth fatter and grosser than above. In G
 blood consists a great portion and treasure of life. When it is let out, it carries with it much vi-
 tall spirit: howbeit, fencelesse it is, and hath no feeling. The strongest creatures bee they which
 haue the thickest blood: but the wisest, those that haue thinnest: the more fearefull, that haue
 least: but dull and blockish altogether which haue none at all. Bulls blood of all other soonest
 congealeth and waxeth hard, and therefore poison it is, to be drunke especially. The blood of
 Bores, red and fallow Deere, Roe-buckles, and all Buffles, will not thicken. Asses blood is most
 fatty and grosse: and contrarily, mans blood is thinnest & finest. Those beasts which haue more
 than 4 feet, are bloudelesse. Those that be fat haue small store of blood, because it is spent in fat-
 nesse. Man only bleeds at the nose: some at one nostrill alone, others at both: and some againe
 void blood downward by the Hemorrhoids. Many there be that cast vp blood at certaine times, H
 ordinarie, by the mouth: as not long since *Macrinus Viscus*, late pretor of Rome: and vsually eue-
 rie yeare *Volusius Saturninus*, Prouost of the citie; who notwithstanding liued vntill hee was a-
 boue fourescore and ten yeres old. Blood is the only thing in the body that increaseth present-
 ly. For so we see, that beasts killed for sacrifice will bleed most freshly & in greater abundance,
 if they dranke a little before. Those creatures that lie hidden in the earth at certainetines, (as
 we haue said before) haue no blood in all that while; vnlesse it be some few, and those very smal
 drops gathered about their hearts. A wonderfull worke of Nature, that it should be so: as also
 that in a man it should alter and change euer and anon, so as it doth vpon euery small occasion:
 and the force and strength thereof varie, not only for defect and want of matter to disperse a-
 broad, but also for euery little motion and passion of the minde, as shame, anger, and feare. I
 For one while it sheweth pale, another while red, more or lesse, in much varietie of degrees. In case
 of anger it wil shew one color: of shame and bashfulness appearing in another. In feare, doubt-
 lesse it retires and flies backe, in such sort, as a man knowes not what is become of it: so as many
 in that fit haue ben stabbed and run thorough, and yet bleed not at all one drop: but this sud-
 daine change of colour happens to men only. For in other creatures, which (as we haue said) do
 alter their hue, it is an outward colour that they take from the reflection of certain places near
 vnto them, man alone hath this change from within himselfe. To conclude, all maladies and
 death especially, consume the blood.

CHAP. XXXIX.

¶ Whether in Bloud resteth the souerainetie or no? Also of the nature of Skin
 of Haires, and the Paps.

SOME measure not the fineness of spirit and wit by the puritie of blood: but suppose that
 creatures are brutish, more or lesse, according as their Skin is, thicker or thinner: and as the
 other couertures of their bodie be either grosse and hard, or thin and tender: as we see for
 example in Oisters and Tortoises. They affirme moreover, that the thick hide in Kine & Oxen,
 and the hard bristles in Swine, impeach the entrance of subtil aire and fine spirit into their bo-
 dies: in such wise, that nothing can pierce and passe through, which is pure and fine, as it should
 be. And hereto they bring men also, as a prooffe, who are thicke skinned, and more brawnie; for
 to be more grosse of sense and vnderstanding: as who would say, that Crocodiles were not ve-
 ry witty and industrious, & yet their skin is hard enough. And as for the Riuer-horse, his hide
 is so thicke, that thereof jaulines and speares are turned: and yet so industrious is that beast,
 that in some case he is his owne Physician, and he hath taught vs to open a veine, and let blood.
 The Elephants skin is so tough and hard, that therof be made targuets and shields, of so good
 prooffe, that it is impossible to pierce them thorough, and yet they are thought to be of all four-
 footed beasts, most ingenious and witty. Wherefore, conclude we may, that the skin it selfe is
 fencelesse, and hath no fellowship at all with the vnderstanding: and especially that of the head;
 and whosoever it is of it selfe naked and without flesh, be sure (if it be wounded) impossible it
 is to consolidate the wound, and namely, in the eie lids and bals of the cheekes. All creatures
 that bring forth their young quicke, are hairie: those that lay eggs, haue either feathers, as birds:
 skales, as fishes: or else be couered with shels, as Tortoises: or last of all, haue a plaine skin and
 no more, as Serpents. The quills of all feathers be hollow. Cut them, they will grow no more:
 plucke them, they will come againe. Insects flie with thin and brittle pellicles or membranes.
 The

A The sea Swallows haue them euermore moist and drenched in the sea. As for the Bat, he is a-
 fraid to wet them, and therefore flies about houses, & his wings besides are diuided into joints.
 The haires that grow forth of a thick skin, are commonly hard & grosse, but euermore thinner
 and finer in the females. In horses and mares they grow at length vpon their mains. Lions also
 haue them long about their shoulders and foreparts. Conies haue long haires about their
 cheekes, yea, and within-forth: as also in the soles of their feet: and so hath the Hares, accord-
 ing to the opinion of *Trogus*: who thereby collecteth, that hairy men likewise are more let-
 cherous than other. The hairiest creature of all other is the Hare. In mankind only there grows
 haire about the priuy parts: and whosoever wants it, man or woman, is holden for barren, & not
 apt for generation. Haires in men and women are not all of one sort: for some they bring with
 them into the world, others come vp and grow afterwards. Those they haue from their mothers
 womb do not lightly fall and shed, and least of all in women. Yet shal ye haue some women to
 shed the haire of the head, by occasion of sicklinesse: as also other women to haue a kinde of
 down vpon their face, namely when their monethly fleurs do stay vpon them. In some men the
 later kind of haires, to wit of the beard, &c. wil not come of their own accord without the help
 of Art. Four-footed beasts shed their haire yereley, and haue it grow againe. Mens haire of their
 heads groweth most: and next to it that of their beards: if the haire be cut it grows not againe
 at the cut end, but springs from the root. It growes apace in some sicknesses, and most of all in
 the consumption of the lungs, and in old age, yea, and vpon the bodies of the dead. In lecherous
 C persons, the haire of their head, browes, and eie-lids, with which they came into the world, doe
 fall more early than in others: but those that spring afterward grow sooner againe if they be cut
 and shauen. The wooll and haire that foure footed beasts do beare is more course and thick by
 age, but it comes not in such plenty as before. And such haue alwaies their backe well couered
 with haire and wooll, but their bellies bare. Of Kine and Ox hides foddren there is made glew:
 but the Bulls hide hath no fellow for that purpose. Man only of all males hath euident paps in
 his breasts: other creatures haue little nipples only in shew of teats. Neither hath all females
 teats in their breasts, but only such as are able to suckle their yong: none that lay eggs haue paps:
 nor any haue milk vnles they bring forth their yong liuing: and yet of all fowles I must except
 D the Bat alone. As for the ilsauored Scritchowles called Stryges, I think they be but tales that
 go of them: namely, That they will giue milk out of their breasts to yong infants. True it is, all
 men agree in this, That the manner was in old time to vse in cursing and execration, the terme
 of Strix; but what bird it should be I suppose no man as yet knoweth.

CHAP. XL.

¶ Notable obseruations in lining Creatures as touching their paps.

SHEE Asses are much pained with the ache of their vdders, when they haue foled; and there-
 fore after six moneths they will not giue them any more sucke: whereas mares doe suckle
 E their colts a whole yeare almost. Those beasts which be whole hoofed, and haue not aboue
 two yong at once, haue all of them two paps and no more, and those in no other place else but
 between their hinder legs. Such as be clouen footed, and horned likewise, haue them in that
 place: but Kine haue foure teats; Ewes & Goats but two apiece. Such beasts as be very fruit-
 ful and bring many yong, and likewise whose feet are parted into toes, these haue many nipples
 or teat heads all along their belly, disposed and set in a double course, as namely Sowes: of
 which those of the better sort haue 12; the common sort but tenne. Also Bitches after the
 same maner. Some beasts haue 4 teats in the mids of their belly, as Panthers: some twaine and
 no more, as the Lionsse. The Elephant alone hath twaine vnder his shoulders or legs before,
 and those not euident in the breast part, but short thereof, and lying hidden as it were within
 F the arm-pits. And generally, none that haue their feet diuided into toes, haue vdders behinde
 vnder their hin legs. A Sow at euery farrow giues the formost nipples to those pigs that come
 first, and so in order as they be farrowed: and those teats be they that are next to her throat, and
 highest. Euery pig knowes the own pap, and will take it and no other when it comes first into
 the world; and thereof it is nourished. If a pig be taken from the sow, the milk of that pap wil
 dry vp presently, or returne backe, and the pap it selfe fall flat to the belly. Also if it chance
 that but one sucking pig be left, that pap alone wil do the part and let down milke, which Na-
 ture

ture first appointed for that one pig. She Beares haue foure paps apiece. Dolphins haue no more but two teats and nipples in the bottom of their belly, and those not very apparant to the eye, nor streit and direct, but lying somewhat aside and byas: and no beaſt beſides giueth ſucke as it runneth but ſhe. To conclude, Whales, Wirlpooles, and Scales, nourish their yong with their vdder and teats.

CHAP. XLI.

¶ *Of Milke: and of what milke Cheefe cannot be made.*

THe milke that comes from a woman before ſhe hath gon 7 months with child is not good: but from that time forward it is whoſome, becauſe the infant may liue and do well after that terme. Many are ſo frim and free of milke, that all their breſts are ſtrut and full thereof euen as far as to their arm-holes. Camels giue milke vntill they be great with yong again: and their milke is thought to be moſt ſweet and pleaſant in taſt, if to one meaſure thereof you put three of water. A Cow hath no milke ordinarily before ſhe hath calued. The firſt milke that ſhe giueth downe is called Beſtins: which, vnleſſe it be delayed with ſome water, will ſoon turn to be as hard as a pumiſh ſtone. She Aſſes are not ſo ſoon with yong, but they haue milke in their vdders: but if they go in good and battle paſture, it is not good their yong ſoles ſhould ſuck their milke in two daies after, for the very taſt thereof is enough to kill them: and this diſeaſe that comes of Beſtins is called Coloftratio. The milke that thoſe giue which haue teeth in both chaves is not good to make cheefe of, becauſe it will not cruddle. Camels milke of all others is thinneſt, and Mares milke next to it. Aſſes milke is holden for to be thick, and therefore they uſe it in ſtead of renning, to turn milke and gather curds thereof. It is thought alſo to be very good for to make womens ſkin faire and white. Certes the Empreſſe Poppea, wife to Domitius Nero, had alwaies whereſoeuer ſhe went, 500 ſhe Aſſes milch, in her train: and in their milke ſhe bathed and waſhed her whole body, as in an ordinary bain, ſuppoſing that thereby her ſkin was not only whiter, but alſo more neat, ſmooth, and void of riuels. All ſorts of milke will thicken with fire, and turne into whey with cold. Cowes milke maketh more cheefe than Goats milke, by twice as much almoſt, although you take no more of the one than the other. The milke of thoſe that haue about foure paps is naught for cheefe: but theirs is better that haue but twain. The rennet of an hind-calfe or Leveret, and a Kid, is much commended. But eſpecially of a Leveret or Rabbet, which alſo is medicinable for the flux of the belly: a thing to be obſerued in them alone, of all creatures that are toothed in both chaves. A wonder it is, that barbarous nations liuing of milke, haue for ſo many hundred yeares either not knowne, or elſe not regarded the benefit of cheefe: and yet they uſed to thicken their milke into a kind of pleaſant foure curd in manner of a Sellibub; and to chann butter thereof, which is the ſkum and cream of milke, much thicker than that which is called whey. To conclude, I may not let paſſe, That Butter hath the vertue and properties of oile: inſomuch as forrein and barbarous nations do anoint their children therewith, as we alſo do ours.

CHAP. XLII.

¶ *Cheefes of ſundry ſorts.*

AT Rome (the only place that hath beſt meanes neere at hand, to iudge of the fruits and commodities of all nations in the world) the cheeſes which come out of the prouinces of Nemaufum, and from the villages of Laſo and Baux, are highly praized for the beſt; but they laſt not long: their commendation is for the preſent ſeaſon while they be Greene and new. There are brought good cheeſes from two coaſts of the Alps, which greatly praize the paſture thereabout. Alſo dainty cheeſes are made in Dalmatia, from whence we haue paſſing good; and namely from Drinaldi. Moreouer, the prouince of Ceutronia ſends vs excellent cheefe from Vatuſium. But the great ſtore and plenty of cheefe cometh from the Apennine mountain: which yeeldeth vs the Cebane cheefe out of Liguria, which is very fine meate, notwithstanding it be made moſt of ewes milke. Alſo out of Vmbria we haue good cheefe, from the dairies along the riuier Aſio. Howbeit in the confines between Tuſcane and Liguria, the moſt ſtrous great cheeſes are made, and namely about Luca, for one of them weigheth a thouſand pounds.

A pounds. Next to theſe in goodneſſe be thoſe that are made neer the city of Rome about Veſtium: but from out of the Sæditan territory and the plains thereabout, there come cheefe that paſſe all the reſt. As for cheeſes made of goats milke, they are not to be defrauded of their due praize, eſpecially when they are freſh and new made: and if beſides, they may haue a little drineſſe in ſmoke, which giueth both a good luſtre, and alſo a pretty taſt to them: for ſuch cheeſes be made within the very city of Rome, and go beyond all others. As for the cheeſes made in France, they taſte like a medicine, and haue an aromatical reliſh with them. For outlandiſh cheeſes beyond ſea the Bithynian carry the beſt name. That there is a certain tarter or ſalter (if by nothing elſe) may wel be known by the taſt of the cheefe made thereof: for there is none, but the older they are, the more ſaltiſh they be: yet ſuch are well known to recouer their freſh taſte again, if they be foked in Thyme vinegre. Some report, that Zoroaſtres liued in the deſart wilderneſſe 20 yeares with cheefe: the which was ſo well tempered, that it ſeemed nothing old, for it neither moulded nor yet bred vermin.

CHAP. XLIII.

¶ *The difference between the members of Man and other Creatures.*

OF liuing creatures vpon the land, Man alone is two footed. He only hath a cannell bone and ſhoulders, armes alſo to embrace: whereas others haue ſhoulders only & fore-legs to reſt vpon. In all creatures that haue hands, they be fleſhy within-forth only: for the back part conſiſts of ſkin and ſinewes. Some men there be with ſix fingers to one hand. Wee haue heard, that M. Curatius a Nobleman of Rome had two daughters ſo handed: whereupon they were called Sedigitæ. Alſo there was a man named Volcatius, who was an excellent poet, and had ſix fingers to an hand, whereupon he was named Sedigitus. Euery finger of a mans hand hath three joints; the thumbe twaine, and it bendeth and boweth full oppoſite to all the reſt of the fingers: and yet by it ſelfe it ſtretcheth awry from the others, and is thicker than the reſt of the fingers. The little finger is equall in length to the thumbe: the fore-finger and the fifth (or ring finger) are juſt of one ſize: betweene which the middle finger is the longeſt. Thoſe foure footed beaſts that liue of rauine and prey haue ſiue toes to their fore-feet, whereas others haue but foure: Lions, Wolues, and Dogs, and ſome few others, haue likewiſe 5 toes or pawes in their hin-feet, and one like a ſpur, which beares forth behind, and hangs down from the paſtern bone of the foot. All other ſmaller beaſts haue ſiue to a foot. The armes of all men be not of a juſt and euen meaſure: for it is well known, That there was a Thracian ſword-Fencer named Stodiusus, belonging to the fence-ſchoole of C. Caligula the Emperour, whoſe right arme was longer than the left. Certaine beaſts without reaſon uſe the miniſtery of their fore-feet in ſtead of hands, and as they ſit on their rumpe reach meat therewith to their mouth, as ſquirrels.

CHAP. XLIV.

¶ *The reſemblance that Apes haue to men.*

AS for all the race and kind of Apes, they reſemble the proportion of men perfectly in the face, noſe, eares, and eye-lids; which eye-lids theſe creatures alone (of all foure-footed) haue vnder their eyes as well as aboue: nay, they haue paps and nipples in their breſts, as women: armes alſo and legs bending contrarie waies, euen as ours doe. Nails they haue alſo and fingers like to vs, with the middle finger longer than the reſt, as ours be. A little they differ from vs in the feet; for ſomewhat long they are, like as their hands be; and the ſole of their foot is anſwerable to the palm of their hand. Thumbs and great toes they haue moreover, with joints directly like a man. And ſetting aſide the member of generation, and that only in the he Ape, all inward parts are the very ſame that ours, as if they were made juſt by one patterne.

CHAP. XLV.

¶ *Of Nails.*

NAiles are taken and reputed for the extremities and vtmoſt ends of the ſinewes: and ye ſhall finde them in as many as haue fingers and rôes. But in Apes they are channelled

H h

halfe

halfe round like a gutter tile, whereas in man they be flat and broad. When one is dead they will grow. In rauinous creatures hooked they be and bowing inward: in dogs right and strait, saue only that which in most of them crooks from behind their legs like a spur. All creatures that haue the fashion of a foot, haue toes therto except an Elephant. And yet he seems to haue an appearance of fine in number, but they are not diuided asunder, or if they be, they are not distinct one from another but very sleightly, and like rather to houfs than nails: the forefeet also are bigger than the hinder. In the hin-feet they haue short ioints. The elephant bends his hams inward, as doth a man: whereas all other liuing creatures bow the ioints of their hinder legs, otherwise than of the former. For such as ingender and breed yong aliuie bend their knees before them: but the ioint of their hough behind clean backward. Mens knees and elbows bow contrary one to the other: so do Beares and all the sort of Apes, which is the cause they be not so swift of foot as others. Foure footed beasts, as many as lay eggs (as the Crocodile and Lizards) haue their knees before, bending backward; but those behind bowing forward: and yet their legs be crooked like a mans thumbe. In like sort, they that haue many feet: vnlesse it be the hin feet of all, in as many as do skip and hop; for they all be straight. Birds, after the manner of foure footed beasts, doe bow their wings forward, but the ioint of their legges backward.

In the knees of men there is generally reposed a certaine religious reuerence, obserued euen in all nations of the world: for humble suppliants creep and crouch to the knees of their superiors: their knees they touch, to their knees they reach forth their hands: their knees (I say) they worship and adore as religiously as the very altars of the gods: and for good reason haply they do so, because it is commonly receiued, That in them there lies much vital strength. For in the very ioint and knitting of both knees, on either side thereof before there are two emptie bladders as it were, like a paire of cheeks; which hollownesse and concauitie if it be wounded and pierced through, causeth as present death as if the throat were cut. In other parts likewise of the body we vse a certain religious ceremonie: for as our maner is to offer the backe part of the right hand to be kissed, so we put it forth and giue it as well in testimonie of faith and fidelitie. It was an antient fashion in Greece, when they would make court and with great respect render a supplication to some great personage, to touch the chin. In the tender lapper of the eare is supposed to rest the seat of remembrance, which we vse to touch when we mean to take one to beare witness of an arrest or other thing done, and to depose the same in the face of the court. Moreover, behind the right eare likewise is the proper place of *Nemesis* (which goddesse could neuer yet find a Latine name, so much as in the very Capitoll) and that place are we wont to rouch with the fourth finger (which is next the least) in token of repentance, when we haue let fall some word rashly, and would craue pardon of the gods therefore. The crooked and swelling veins in the legs man alone hath, and women very seldome. *Oppian* writes, that *C. Marius* (who had bin Consul of Rome 7 times) endured, without sitting down for the matter, to haue those veins taken forth of his legs, a thing that neuer any was known to abide before him. All foure-footed beasts begin to go ordinarily on the right hand, and vse to ly downe on the right side: others go as they list. Lions and Camels only haue this propertie by themselves, to keep pace in their march, foot by foot, that is to say, they neuer set their left foot before their right, nor ouer-reach with it, but let it gently come short of it and follow after. Men & women haue the greatest feet in proportion of all creatures: but females vsually in euery kind haue lesse & slenderer feet than males. Men and women only haue calues in their legs, and their legs full of flesh. Howbeit we reade in some writers, That there was one man in *Aegypt* had no calfe at all to his legs, but was legged like a crane. Man alone hath palmes of his hands, & broad flat soles to his feet; and yet some there be who that way are deformed and disfigured. And thereupon it came that diuers came to be surnamed *Planus* [i. flat footed:] *Plauis* [i. splay footed:] *Scauri* [i. with their ancles standing ouermuch out:] *Pauis* [i. broad footed:] Like as of their misshapen legs some haue bin named *Vari* [i. wry legged:] others, *Vatius*, and *Vatinij*, [i. bow-legged:] which imperfections beasts also are subiect vnto. Whole hoofed are all they that beare not horns: in regard wherof they be armed with house in stead of that offensive weapon: and such as they be haue no ancle bones: but all clouen footed haue those bones. Howbeit all that haue toes want ancles; and in a word, there is not one hath them in the fore-feet. Camels haue ancles like to Kine and Oxen, but somewhat lesse: for indeed they be clouen footed, although

A the partition be very little, and hardy discerned vnder the foot, but seemeth flesh all ouer the sole, as Beares also, which is the cause that if they trauaile farre vnshod, their feet are surbated, and the beasts will tire.

CHAP. XLVI.

¶ A discourse of beasts houses.

THE Houses of Horses, Mules, Asses, and such like beasts of carriage onely, if they be pared and cut, will grow againe. In some parts of Sclauonia, the Swine are not clouen-footed, but whole hoofed. All horned beasts in manner be clouen-footed: but no beast beares two hornes, and hath withall the house of one entire peece. The Indian Ass hath onely one horne. The wild Goat also called *Oryx*, is clouen hoofed, and yet hath but one horne. The Indian Ass moreover, of all the whole hoofed beasts alone, hath the pasterne or ankle-bones. As for Swine, a mungrell kind they are thought to be of both, in regard of those bones; and thereupon are reputed filthy and acursed. They that haue thought that a man had such, are soon conuincied. As for the Once, he indeed alone of all those whose feet are diuided into toes, hath that which somewhat resembles a pasterne bone. So hath a Lion also, but that it is more crooked and winding. As for the streight pasterne bone indeed, it beareth out with a bellie in the joynt of the foot, and in that hollow concauitie wherein the said bone turnes, it is tied by ligaments.

CHAP. XLVII.

¶ Of Birds feet, and their Clawes or Talons.

OF Fowles, some haue their feet diuided into cles and toes; others be broad and flat footed: and some are betwene both; which haue indeed their toes parted and distinct, and yet their feet be broad between. But of all them that haue foure toes to a foot: to wit, 3 in the forepart, and one behind at the heele in manner of a spur: howbeit this one is wanting in some; that are long legged. The *Wrinecke* or *Hickway*, with some few others, haue two before and other two behind. The same bird putteth out a tongue of great length, like to serpents. It turneth the necke about and looketh backward: great clawes it hath like those of Choughes. Some bigger birds haue in their legs one other shanke-bone more than ordinarie. None that haue crooked talons, be long legged. All that staulke with long shankes, as they fly stretch out their legges in length to their tails: but such as be short legged, draw them vp to the midst of their belly. They that say, No bird is without feet: affirme also, That * *Martinetts* haue feet: like as also the swift Swallow called *Oce*, and the sea Swallow *Drepanis*. And yet such birds come so little abroad, that they be seldome seen. To conclude, there haue been now of late, Serpents knowne flat-footed like Geefe.

CHAP. XLVIII.

¶ Of the feet of Insects.

ALL Insects hauing hard eies, haue their fore-legges longer than the rest, to the end that o- therwhiles they might with them, scoure their eies, as we see some flies doe: but those whose hinder-legs are longest, vse to skip and hop, as Locusts. Howbeit, all of them haue six legs apeece. Some Spiders there be, that haue two ouer and about the ordinarie, and those be very long: and euery leg hath three joynts. As for some sea-fishes, we haue said before that they haue eight legs: namely, Many feet, Pourcuttles, Cuttles, Calamaries, and Crabfishes: and those moue their fore-cles like armes a contrary way, but their feet either they turne round or else fetch them crooked at one side: and a man shall not see any liuing creature againe, al round, but they. As for others, they haue two feet to guide them and lead the way; but Crabs onely haue foure. There be Insects besides vpon the land, that exceed this number of feet; and then, they haue no fewer than twelue: as the most sort of wormes: yea and some of them reach to an hundred. No creature whatsoeuer hath an odde foot. As touching the legs of those which bee whole hoofed, they be all full as long when they first come into the world, as euer they will be: well may they shoot out bigger and burnish afterward, but (to speake truly and properly) they

The eleventh Booke of

even wals round about or emptie drie-fats and tuns set, the voice will be taken vp in them, and passe no farther. But the same voice, betwene two wals directly set one by another, runs apace: yea, and through a vault it may be heard from the one end to the other, be the sound neuer so low; provided, that all be smooth and even between, and nothing to hinder the passage thereof. To speake yet somewhat more of the Voice: In it doth rest a great part of the countenance and visage of man, whereby he is discerned and knowne. For we know a man by hearing his voice before we see him, euen as well as if our eies were fixed vpon him. And see how many men and women there are in the world, so many sundrie voices there bee, for each one hath a seuerall voice, as well as a face, by himself. And hercof arises that varietie of nations, that diuersitie of languages all the world through. From hence come so many tunes in song, so many notes in Musick, as there bee. But about all, the greatest thing to be noted in Voice, is this, That whereas the utterance of our mind, therby doth distinguish vs from brute and wild beasts: the same euen among men maketh as great a difference betwene one and another, as the other is betwene man and beast.

CHAP. LII.

¶ Of the excrescence and superfluitie of some members. Also the discourse and sayings of Aristotle as touching mans life

Lookewhat part is more than ordinarie by nature, in any liuing creature, the same serues to no vse. As for example, the sixth finger in a mans hand is euermore superfluous, and therefore fit for nothing. It was thought good in Egypt once to nourish and keep a monstrous man who had foure eies, wherof two stood in the backe part of his head behind: but surely he saw neuer a whit with them. I wonder verily, that Aristotle nor only beleueed, but also sticke not to set downe in writing, that there were certaine signes in mans bodie, whereby we might foreknow whether he were long liued or no. Which, albeit I take to be but vanities, & not rashly to be vttered without good aduisement (because I would not haue men amused, and busily occupied in searching Prognostications in themselves, as touching their owne life) yet will I touch the same, and deliuer them in some sort, since so great a clerk as Aristotle was, held them for Resolutions, and thought them worth the penning. He putteth downe therefore, as signes of short life, thin teeth, long fingers, a leaden hew, many lines in the palme of the hand, with crosse bars or short cuts. Contrariwise, he saith, That those who are Lute backed, thicke shouldered, and bending forward, who also in one hand haue two long life lines, and about 32 teeth in their head, and besides are wel hanged, and haue large eares, bee long liued. And as far as I can guesse, he requires not, that all these signes should concur and meet together, for to signifie as is before said: but, as I suppose, his meaning is that euery one of them by it selfe is significatiue and sufficient. Surely, these Physiognomers & Chiromantines or Palmestrie, as friuolous and foolish as they be, yet now adaies are in credite, and euery man is full of them. *Trogus*, a most graue and renowned Author among vs, is of opinion moreover, That there is judgment to be giuen, not only of mens complexions, but also of their conditions, by their very sight & countenance: and surely, I think it not amisse to set downe his very words. A large and broad forehead (saith he) is a token of a dull conceit and heauie vnderstanding; and contrariwise, they that haue a little forehead, are by nature, fickle and inconstant: and finally, a round forehead, and bearing out argues anger and choller, as if this outward tumor thereof bewraied the swelling and boiling, of that humor. In whomsoever the eie-browes are streight and lie euen, they betoken soft and effeminate persons; but if they bend and bow toward the nose, they shew auerteritie. Say their turning and bending be toward the temples of the head, they are signes of a mocker and scorner: finally where they lie very low, such persons (be ye sure) are malicious, spightfull, and enuious. Long eies, in whomsoever they bee, do testifie hurtfull and dangerous persons. They that haue the corners full of flesh, are of a malicious nature: where the white of the eie is spread large and broad, it is a token of impudencie. And such as euery whiles be winking and closing of their eie-lids, (trust me truly) they be giddie-headed, and vnstaied. Those that haue great eares, and especially the laps thereof, make account they be blabs of their tongue, and fooles withal. Thus much of Physiognomie, according to *Trogus*.

CHAP.

Plinies Naturall History.

CHAP. LIII.

¶ Of the Spirit and breath of liuing creatures: also what things be venomous in taste, and do kill. Of mens food. And last of all, what hindereth digestion and concoction of meat.

The breath of Lions hath a very strong deane and stinking smell with it: but that of a beare is pestilentiall and deadly: in so much, as no beast will touch where a beare hath breathed and blown vpon: for surely such will sooner corrupt & putrifie than others, as if they were blasted. As for the breath of a man, Nature hath suffered it to be infected many waies, namely, by the viands and meat that he eateth; by faulty and rotten teeth; and most of all by old age. And yet our breath, without which there is no sence, feelth no pain it selfe, as being void of feeling and altogether sencelesse. The same goeth and commeth continually without rest and intermission: the same is alwaies new and fresh: and as it shal depart out of the body last, so it shal remaine alone, when all is gon besides it. Finally, returne it shal into the aire and the heauen, from whence it first came. Now, albeit this breath that we draw, be the very means whereby we liue, and without which we cannot maintain our life, yet otherwhiles troublesome it is vnto vs, and plagueth vs as a very punishment ordained for vs. The Parthians of all others be most subiect to this inconuenience, euen from their very youth, by reason of the grosse feeding of all meats indifferently, without choise and discretion: and specially of their drunkenesse. For excessive drinking of wine causeth stinking breath. But the Nobles and great States of that countrey haue a remedy therefore, and make their breath sweet, by taking with their meats the kernels of Pome-citrons, which yeeld a most pleasant sauer. The very breath of Elephants causeth Serpents to come out of their holes: but Stags and such other Deere, therewith do blast & burn them. As touching certain kinds of men, who by sucking only could draw & fetch out the poison out of bodies wounded by venomous Serpents, we haue already spoken. As for hogs, they will feed of Serpents, and do well enough, whereas to other creatures they be no better than poison. All those little creatures, which we named Insects, wil die if they be but sprinkled or wet with oile. The Vultures or Geires which flie from sweet ointments, are desirous yet of other odors and perfumes: like as Beetles like well the smell of Roses. Some Serpents there be that the Scorpion kils. The Scythians poison their arrow-heads with the venomous filthy blood of vipers and mans together. A present poison this is, and remediless; and it no sooner toucheth but it taketh, and killeth forthwith. As touching those creatures that feed of poison, we haue spoken heretofore. Moreover, some creatures there be, which otherwise being harmlesse, if they be fed with venomous beasts or plants, become also themselves noisome & dangerous. The wild bores in Pamphylia, and vpon mountains of Cilicia, that haue eaten Salamanders, become venomous: and whosoever chance to eat of their venison, are sure to die vpon it. And yer cannot a man know any such venome therein, either by sent at nose, or tast of tongue. Moreover, the very water or wine wherein a Salamander hath bin stifled and suffocated, or whereof it hath but drunk, wil kil a man that shall but sip thereof neuer so little. The like is to be said of that Frog which we call *Rubra* [i. the toad that liues in bushes.] See how many ambushes our life is subiect vnto! Wasps feed greedily vpon Serpents, and vpon that food their stings be deadly. And therefore you see it skilleth much what meats we eat, and the maner of our food is very material. As we may learn farther in that treatise which *Theophrastus* wrote of the Ichthyophagi that liue of fish: where he hath set downe, That Kine and Oxen doth eat fish, but they must in any case be aliue.

To come now vnto mens diet: their best and most wholsome feeding is vpon one dish and no more, and the same plaine and simple: for surely this huddling of many meats one vpon another of diuers tastes is pestiferous: but sundrie fauces are more dangerous than that. As touching our concoction: all tart and sharp meats are of hard digestion: also fulnesse and surfeiting: hasty and greedie feeding likewise be enemies to digestion, and hurtful to the stomach. In sum, we digest our meat more hardly in Summer than in Winter, and in age worse than in youth. Now to helpe and remedie all this excesse and enormitie, vomite hath bene deuised: but vse it whosoever will, he shall find the naturall heat of his bodie thereby to decay: he shal sensibly perceiue that it hurteth the teeth, and eies especially. To goe to bed vpon a full stomack, and

The twelfth Booke of

to digest in sleepe, is better to make a man fat and corpulent, than strong and lusty. And therefore wrestlers and champions who are acquainted with full & liberrall diet, vse rather to walk after meat for to digest. And in one word, much watching maketh best digestion.

CHAP. LIIII.

¶ Of making bodies fat or leane. Also, what things being tasted, do allay hunger, and quench thirst.

Bodies grow to be burly and grosse, with sweet meats, fat feeding, & much drinke: contrariwise, drie diet, actually cold, and thirst withal, make a body lean. There be beasts in Africk, and especially the lesser sort, which drink not about once in foure daies. A man may well liue 7 daies without any food whatsoever: & wel is it knowne, that many haue continued more than 11 daies without meat or drink. There haue bin some known so hungry euermore that nothing would satisfie them, and such haue died for very famine, although they did nothing else but eat a disease incident to no creature but a man. Some again can aswage and appease their hunger, yea, and slack and extinguish their thirst with a very little, and yet preserve & maintain the naturall strength of their body: namely, with tasting butter, cheese made of Mares or Asses milk, and Licorice. But to conclude and knit vp this discourse: the worst and most dangerous thing euery way that can be in all the course of our life, is Excesse and Superfluity; but to the health of our bodies most of all: and therefore the best course is, to cut off by all meanes that which is offensiu and heauy to the body. Thus much shall suffice as touching liuing and sensible creatures. Let vs therefore now proceed to the rest of Natures workes.



THE TWELFTH BOOKE OF THE HISTORIE OF NATURE, WRITTEN BY C. PLINIVS SECVNDVS.

The Proeme.

Thus you see by that which hath bin written before, what are the natures as well in generall, as particularly in parts, of all liuing and sensitiue creatures within the compasse of our knowledge. It remaineth now to discourse of those which the earth yeeldeth: and euen they likewise are not without a soule in their kind (for nothing liues which wanteth it:) that from thence we may passe to those things that lie hidden within the earth, and are to be digged out of it: to the end, that no worke and benefit of Nature might ouerpasse our hands, and be omitted. And in truth, these treasures of hers lay long concred vnder the ground, in so much as men were perswaded, that Woods & Trees were the last & only goods left vnto vs and bestowed vpon vs by Nature. For of the fruit of trees had wee our first food: their leaues and branches serued to make vs soft pallats and couches within the caues: and with their rinds and bark we clad and couered our nakednesse. And euen at this day, some Nations there be that liue still in that sort, and no otherwise. A wonderfull thing therefore it is, that from so small and base beginnings wee should grow so: but passe in pride, that wee must needs cut through great mountaines for to meet with marble: send out as far as to the Seres for silk stufte to apparell vs: diue downe into the bottome of the red sea for pearls: and last of all sinke deepe pits euen to the bottome of the earth, for the precious Hemerauld. For this pride and

vanitie

Plinies Naturall History.

A vanitie of ours, we haue deuised means to pierce and wound our eares: because, forsooth it would not serue our turns to weare costly pearles and rich stones in carkanets about our necke, borders vpon the haire of our head, bracelets about our arms, and rings on our fingers; vnlesse they were ingrauen also, and cut into the very flesh of our bodies. Well then, to follow the course of Nature, and the order of our life (as meet it is we should) wee will treat in the first place of Trees, and lay before mens eyes the life of the old world, and what was their behavior and demeanure at the first, in their manner of liuing.

CHAP. I.

¶ The honour done in old time to Trees. When the Plane-trees were first knowne in Italy, and of their nature.

Bold time, Trees were the very temples of the gods: and according to that ancient manner, the plaine and simple peasants of the country, sauoring still of antiquity, do at this day consecrate to one god or other, the goodliest and fairest Trees that they can meet withal. And verily we our selues adore not with more reuerence & deuotion the stately Images of the gods within our temples (made though they be of glittering gold, and beautifull yuorie) than the very groues and tufts of trees, wherein we worship the same gods in all religious silence. First and formost, the ancient ceremonie of dedicating this and that kind of Tree to seuerall gods, as proper and peculiar vnto them, was alwaies obserued, and continueth yet to this day. For the mighty great **C** Oke named *Æsculus*, is consecrated to *Iupiter*; the Laurell to *Apollo*; the Oliue tree to *Minerva*; the Myrtle to *Venus*; and the Poplar to *Hercules*. Moreouer, it is receiued and beleued generally, That the Syluanes and Faunes, yea, and certaine goddesses, are appropriate and assigned to woods and forests; yea, there is attributed vnto those places a certain diuine power and godhead, there to inhabit: as well as vnto heauen the proper seate for other gods and goddesses. Afterwards, in proceesse of time men began to taste also the fruit of Trees, and found therein a iuice (without all comparifon) more lenitiue and pleasant to the contentment of their nature than that which came of corn and grain: for therof made they Oile, a singular liquor to refresh and comfort the outward members and parts of the body: out of it they pressed wine, the onely drinke that giueth strength within, and fortifieth the vitall powers. From thence gather wee so many fruits, yerely growing and comming of them selues without the labour and industry of man. And albeit, to serue our belly & please our tooth, we stick not to maintain fight and deale in combat with wild beasts in the forests; although we hazard our selues in the sea, to meet with monstrous fishes which are fed with the dead bodies of men cast away by shipwracke; and all to furnish and set out the table; yet is not the cheare thought good enough, vnlesse fruits also be sent vp at the later end, that they may haue the honor in all feasts of the second seruice, and the banquet. Besides all this, Trees serue our turns for a thousand necessary vses, without which our life could not be well maintained. With Trees we saile ouer seas into strange lands, and by transporting commodities and merchandise too & fro, we make lands meet together: of Trees we build our houses wherein we dwell. Trees were the matter in times past, whereof were made the images of the gods. For as yet no man thought of the costly Anatomy of the elephant, neither was their tooth in any account: whereas now adaies we make the tressels, frames, and feet of our tables, euen of the same yuory that we see the faces of gods are portraied of, as if we had our warrant from them to begin & maintain our riot and superfluity in this behalf. We find in old **E** Chronicles, That the Frenchmen and Gaules took occasion first to come down into Italy, & to ouerspread the whole country (notwithstanding they were beforetime debarred from thence by the impregnable fort, as it were, and the vnassailable bulwark of the Alps between:) because one *Elico*, a Swisser or Heluctian, who had made long abode at Rome (where he was entertained for his skil in Smiths worke and Carpentry) at his return home again into his country, brought ouer with him dry figs and Raisons: the first fruits also as it were of oile & wine for a tast, to set their teeth a watering. And therefore the French had good reason, and might wel be born withall and pardoned, for seeking to conquer euen by force of armes those countries where such fruits grew. But who would not maruell rather at this, That our people here should go into far countries, and fetch a tree from thence, euen out of another world, only for the shade that it giueth?

vethe For surely, of fruitfull trees Italy hath store enough: and what tree should that be, but the very Plane: brought first ouer the Ionian sea into the Isle Diomedea, for to beautifie the tomb of *Diomedes*: from thence translated into Sicily, and so bestowed at length vpon Italy, & there planted, as a most singular, rare, & speciall tree. But now is it carried as far as Terwin and Tour-nay in France, where it is counted an appertenance to the very soile that paeth tribute: inso-much, as people that wil but walk and refresh themselves vnder the shadow of it, must pay a cu-stome therefore vnto the people of Rome. *Dionysius* king of Sicily, and the first of that name, caused them to be brought from Rhegium in Calabria to his Roia! city, where his pallace was, only of a singularity, because they should be seen to giue a shade before his house, where after-wards was made the Colledge or place of publick exercise. But these trees did not greatly like the soile, for they neuer grew big, nor prospered to any purpose. Howbeit, I find in writers, that there were other besides in Italy, and namely about Adria, as also in Spain. And all this hap-pened about the time that Rome was sackt by the Gauls. But afterwards they came to be so high-ly esteem'd, that for to make them grow the better, men would beat the cost to water them with wine: for this was found by experience, that nothing was so good for them as to poure wine to their roots. Thus haue we taught euen our trees also to drinke wine, and be drunke. The Plane trees of any great name at first, were those that grew in the walking place of the Academia in Athens; where the root of one outwent the boughs 36 cubits in length. Now in this age there grows a famous one in Lycia, neer to the high way were men passe too & fro, & it hath a plea-sant cold fountain adioining to it: the same is hollow within like to a house, & yeelds a caue of 81 foot in compasse: but it carries such an head withal like a groue, so large, so broad, & so bran-ched, that euery arm resembles one entire tree: inso-much, as the shade therof takes vp & sprea-deth a great way into the fields. And because in euery respect, it might resemble a very cabbin and caue indeed, there are stony banks & seats within, in form of an arbor round about, made as it were of pumish stone ouergrown with mosse. And in truth, this tree, and the scituation therof is so admirable, that *Licinius Mutianus* thrice Confull, and lately Lieutenant generall and Go-uernor of that Prouince, thought this one thing worthy to be recorded as a memoriall to poste-rity, That he and 18 more persons of his company, vsed to dine and sup within the hollownesse of that tree: where the very leaues yeelded of the own sufficient bed and bench-room to rest and repose themselves: where they might sit secured from danger of wind to blow vpon them: where whiles he sat at meat, he wished nothing more than the pleasure to heare the showers of rain to pat drop by drop, and rattle ouer his head vpon the leaues: & finally, that he tooke much more delight to lie within the said cabbin, than in a stately chamber built of fine marble, all glorious within with hangings of tapistrie and needleworke of sundry colours, and the same seeled ouer head with an embowed rooffe laid with beaten gold. Moreouer, *Caligula* the Emperor had such another Plane tree growing in the country about Velitrae, most artificially: wherein he vsed to take great pleasure, with admiration of the sundry lofts and planks one ouer another, the large fertles also and spacious branches that the boughs yeelded, where he was wont to sit at repast, making one of the 15 guests. For the room was of that capacity, that it would not only receiue so many to sit with ease at the table, but also the gentlemen and seruitors that waited and mini-stered vnto them: and he termed this supping place by the name of, His nest: because it seemed like a birds nest in a tree. There is to be seen at Gortyna, within the Island Candy, one Plane tree neere vnto a faire fountain: recorded it is as well by Greekes as Latines in their writings, and by the testimony of them both, neuer sheds the leaues, but remains alwaies green, as well in Winter as Summer: by occasion whereof arose the tale (so much giuen is Greece to deuise fa-bles by and by of euery small matter) That *Jupiter* vnder that tree deflowered the yong lady *Euro-pa*: as if (forsooth) there were no other tree but it of the same kind and nature, in Cyprus. But as the nature of man is euermore curious, and seeketh after nouelties) the Candiotes desirous to haue of the same race within Crete, set many slips thereof in sundry places, as if they longed to haue more such vicious fruit (as is before named:) for in very deed that Tree is in no one thing more commendable, than for excluding the heat of the Sunne in Summer, and admitting it in Winter. In the time of *Claudius Caesar*, late Emperour, there was an enfranchised slaue belonging to *Marcellus Efernius*, a daintie guelded Eunuch of Theffalie, and exceeding rich, who caused certain Plane trees to be brought out of Candie into Italie, for to plant them at a manor which he had in the the territorie neare vnto Rome. This freed Eunuch for to grow into more

A more power and fauor with *Cesar*, had ingrafted himselfe, as adopted among his freed men: and surely for his wealth might well be called *Dionysius*, who was the first that transplanted these kind of trees. Thus you see, that ouer and about those monstrosities which Italy hath deuised of it selfe, we haue remaining and reigning among vs those also of strange and forraine nati-ons abroad in the world.

CHAP. II.

¶ Of the low or dwarfe Plane tree. And who first deuised to clip and shred Arbours.

B AS big as these Plane-trees, are yet there be those of a forced smalnesse to the other, called *Chama platani*: whereby a man may see, that we haue inuented the meanes to haue abor-tive trees also, euen to hinder their growth, that they cannot come to their full perfection. And therefore euen in Trees as well as in other liuing creatures, there is a certaine infelicicie, which may well be termed, A dwarfish vntowardnesse. This smalnesse in trees may come, by the mane-r of planting them, as well as by cutting and keeping them downe. The first man that deuised to shred and cut arbours, was one *Cn. Martius*, a gentleman of Rome, and a fauorit of the Emperour *Augustus*; and this inuention hath not bin knowne about 80 yeares.

CHAP. III.

¶ Of Trees that be strangers in Italy: and namely of the Citron or Limon Tree.

C Herry-trees, Peach-trees, and generally all that either haue Greek names or any other but Latine, are held for aliens in Italy. Howbeit, some of them now are infranchised and taken for free denizens among vs: so familiar they be made vnto vs, and they like the ground so well. But of them, we will speake in the ranke of those trees that beare fruit. For this present we are to treat of those that be meere forrainers: and for good lucke sake, begin we will with that which of all others is most holefome; to wit, the Citron tree, called the Assyrian tree; and by some, the Median Apple-tree: the fruit whereof is a counterpoison and singular Antidote a-gainst all venome. The tree it selfe, beares the leafe like vnto an Arbut tree; may it hath certain prickles among. The Pomecitron is not so good to be chewed and eaten of it selfe: howbeit ve-ry odoriferous it is: as be the leaues also therof, which are vsed to be laid in wardrobes among apparell; for the finel thereof wil passe into the cloths, and preserue them from the moth, spider and such like vermin. This tree beares fruit at all times of the yere, for when some fall for ripe-nesse, others wax mellow; and some again, begin then but to shew their blossome. Many forrai-ners haue assaied to transplant them, and set them in their own countries, in regard of their ex-cellent vertue to resist poisons. And for this purpose they haue caried yong quicksets, or plants of them, in earthen pots made for the purpose, and inclosed them well with earth: howbeit the roots had liberty giuen them to breath (as it were) at certain holes for the nones, because they should not be clunged and pent in prison. Which I rather note, because I would haue it known once for all, and well remembred, That all plants which are to be removed and carried far off, must be set very close, and vsed in the same order most precisely. But for all the care and paines taken about it, for to make it grow in other countries, yet would it not forget Media and Per-sia, nor like in any other soile, but soon die. This is that fruit, the kernels whereof (as I said before the lords and great men of Parthia vse to seeth with their meat, for to correct their soure and stinking breaths. And verily there is not a tree in all Media, of better respect than is the Citron tree. As for those trees in the region of the Seres (which beare the silk wool or cotton) we haue spoken thereof in our Cosmographie, when we made mention of that Nation.

CHAP. IV.

¶ Of Indian Trees: and when the Ebene was first knowne at Rome.

I N like manner, discoursed we haue of the talnesse and greatnesse of Indian trees. Of all those trees which be appropriate to India, *Virgil* hath highly commended the Ebene about all the rest;

rest: and he affirmeth, That it will not grow elsewhere. But *Herodotus* assigneth it rather to *Æthiopia*; and saith, That every three yeares the *Æthiopians* were wont to pay by way of tribute vnto the kings of *Persia*, * 100 billets of the timber of that tree, together with gold and yuory. Moreouer, I must not forget (since that mine author hath so expressly set it downe) that the *Æthiopians* in the same regard were bound to pay in like manner, twentie great and massie Elephants teeth. In such estimation was yuorie then, namely in the 310 yeare after the foundation of *Rome*, at what time as *Herodotus* put forth that historie at *Thuri* in *Italy*. The more maruell it is, that we giue so much credit to that writer, saying as he doth, How that in his time & before, there was no man knowne in *Asia* or *Greece*, nor yet to himselfe, who had not so much as seen the river *Po*. The Card or Map of *Ethiopia*, which lately was presented and shewed to the Emperor *Nero* (as we haue before said) doth sufficiently testifie, That from *Syene* (which confines and bounds the lands of our Empire and dominion) as far as to the Island *Meroe*, for the space of 396 miles, there is little *Ebene* found: and that in all those parts betweene, there be few other trees to be found, but Date trees. Which peradventure may be a cause, That *Ebene* was counted a rich tribute, and deferred the third place, after Gold & Yuory. Certes, *Pompey* the Great, in that solemnitie of triumph for the victorie and conquest of *Mithridates*, shewed one *Ebene* tree. *Fabianus* is of opinion, that it wil not burne: howbeit, experience sheweth the contrary, for take fire it will, yea and cast a pleasant and sweet perfume. Two kindes there be of *Ebene*: the one, which as it is the better, so likewise it is rare and geason; it carrieth a trunk like another tree, without knot, the wood thereof is blacke and shining, and at the very first sight, faire and pleasant to the eie, without any art or polishing at all. The other is more like a shrub, and putteth forth twigs as the *Tretrifolie*. A plant this is, commonly to be seene in all parts of *India*.

CHAP. V.

¶ Of certaine Thornes, and Fig-trees of *India*.

Here groweth also among the *Indians*, a Thorne resembling the later kind of *Ebene*: and found to serue for the vse of candles: for no sooner commeth it neere vnto the fire, but it catcheth a flame, & the fire leaps presently vnto it. Now it remains to speak of those trees, which set *Alexander* the Great into a wonder, at what time as vpon his victory he made a voyage for to discover that part of the world. First and foremost, there is a fig-tree there, which beareth very small and slender Figs. The property of this tree, is to plant and set it selfe without mans help. For it spreadeth out with mighty armes, and the lowest water-boughes vnderneath, doe bend so downward to the very earth, that they touch it againe, and lie vpon it: whereby, within one yeares space they will take fast root in the ground, and put forth a new Spring round about the Mother-tree: so as these branches thus growing, seeme like a traile or border of arbors most curiously and artificially made. Within these bowers the Shepherds vse to repose and take vp their harbor in Summer time: for shady and coole it is, and besides well fenced all about with a set of young trees in manner of a pallaisado. A most pleasant and delectable sight, whether a man either come neere, and looke into it, or stand a farre off: so faire and pleasant an harbour it is, all greene, and framed arch-wise in iust compasse. Now the vpper boughes thereof stand vp on high, and beare a goodly tuft and head aloft like a little thicke wood or Forrest. And the body or trunk of the Mother is so great, that many of them take vp in compasse threescore paces: and as for the foresaid shadow, it couereth in ground a quarter of a mile. The leaves of this Tree are verie broad, made in forme of an *Amazonian* or *Turkish* Targuet: which is the reason, that the Figges thereof are but small: considering that the leafe couereth it, and suffereth it not to grow vnto the full. Neither doe they hang thicke vpon the Tree, but here and there very thinne, and none of them bigger than a beane. Howbeit, so well and thoroughly ripened they bee with the heate of the Sunne, notwithstanding the leaues are betweene, that they yeeld a most pleasant and sweet rellice in tast, and are a fruit for a king, answerable to the mighty, huge, and prodigious tree that beareth it. These Fig-trees grow abundantly about the river *Acesine*.

CHAP.

CHAP. VI.

¶ Of the tree named *Pala*: of other Indian trees, whereof the names be unknowne.
Also of those that beare wooll or Cotton.

Another tree there is in *India*, greater yet than the former, bearing a fruit much fairer, bigger, and sweeter than the figs aforesaid, and whereof the *Indian* Sages & Philosophers do ordinarily liue. The leafe resembleth birds wings, carrying three cubits in length, and two in bredth. The fruit it puts forth at the bark, hauing within it a wonderfull pleasant iuice: inso-much as one of them is sufficient to giue 4 men a competent and full refectiō. The trees name is *Pala*, and the fruit thereof is called *Ariena*. Great plenty of them is in the country of the *Sydraci*, the vtmost limit of *Alexander* the Great his expeditions and voiajes. And yet is there another tree much like to this, and beareth a fruit more delectable than this *Ariena*, howbeit, the guts in a mans belly it wringeth, and breeds the bloody-flux. Whereupon *Alexander* made open proclamation and straitly forbad, That no man should taste thereof. As for the *Macedonian* souldiers, they talked much of many other trees, but they described them in generall tearmes only, and to the most of them they gaue no names at all. For one tree there is besides, in other respects resembling the *Terebinth*, and it carrieth a fruit much like to *Almonds*, onely it is lesse, but of a most sweet and toothsome taste. In *Bactria* verily, some take it to be a speciall kind of the *Terebinth* indeed, rather than a tree like vnto it: but that tree which carrieth a fine flax, whereof they make their dainty linnen & lawn, it hath leaues like to those of the *Mulbery* tree, and beareth a red berry like to the hips of an *Eglantine*. They plant and set these in their fields and plains: and surely, standing as they do in such order, there are no rowes of any trees that yeeld a fairer sight and prospect. The *Oliue* tree of *India* is but barren, saue that it brings a fruit much like the *Wild Oliue*.

CHAP. VII.

¶ Of Pepper trees: of the Cloue tree, and many other.

The trees that beare Pepper euery where in those parts, be like vnto our *Iuniper* trees. And yet some haue written, That they grow only vpon the front of the hill *Caucasus* on that sidewhich lieth full vpon the Sun. The corns or graines that hang thereupon, differ from *Iuniper* berries: and those lie in certain little huskes or cods like to the pulse called *Fafels* or *Kidney* beans. If that be plucked from the tree before they gape and open of themselves, they make that spice which is called long-Pepper: but if as they do ripen, they cleaue and chawn by little & little, they shew within, the white pepper: which afterwards being parched in the Sun, changeth colour, and waxeth black, and therewith riueld also. Peppers be subiect to the iniury of the weather as well as other fruits: for if the season be vnkindly and vntemperat, they will catch a blast, and then the seeds will be deafe, void, light, & naught. This fault is called among the *Indians*, *Brechmasis*, which in their language signifieth, an abortiue or vntimely fruit. This pepper of all other kinds is most biting and sharp, but it is the lightest, and pale of colour with all. The blacke is more kindly and pleasant: and the white is more milde in the mouth than both the other. Many haue taken *Ginger* (which some call *Zimbipeti*, and others *Zingiberi*) for the root of that tree: but it is not so, although in taste it somewhat resembles pepper. For *Ginger* grows in *Arabia* and *Troglodytica* in meadowes about the villages: and it is a white root of a certain little herbe. And howsoeuer it be very bitter and biting, yet it quickly meeteth with worme, and rottes. A pound of *Ginger* is commonly sold at *Rome* for six deniers. Long pepper is soon sophisticated, with the *Seniue* or mustard-seed of *Alexandria*: & a pound of it is worth fifteen *Romane* deniers. The white costeth seuen deniers a pound, and the blacke is sold after foure deniers by the pound. As for Pepper, I wonder greatly that it should be so much in request as it is: for whereas some fruits are sweet and pleasant in taste, and therefore, desired of others beautiful to the eie, and in that regard draw chāpmen: Pepper hath neither the one nor the other. A fruit or berry it is (call it whether you will) neither acceptable to the tongue, nor delectable to the eie: and yet for the biting bitternesse that it hath, we are pleased therewith, and we must haue it set forsooth from as far as *India*. What was he, gladly would I know, that ventured

ured first to bite of pepper and vse it in his meats? Who might he be, that to prouoke his appetite and find himselfe a good stomack, could not make a shift with fasting and hunger onely? Surely, Ginger and Pepper both, grow wild in those countries where they do like, and yet wee must buy them by weight, as we do gold and siluer. Of late daies here in Italy, wee haue made means to haue the Pepper tree growing among vs, and verily a little scrubby plant it is, or shrub rather, bigger somewhat than the myrtle, and not far vnlike. The graine that ours beareth, carrieth the very same bitternesse that the Greene pepper of India is thought to haue before it be full ripe. For here it wanteth the due parching and ripening against the sun: and by that means cometh short of the riuels and blacknesse that the outlandish pepper hath; Sophisticated it is, by intermingling with it the grains or berries of Iuniper: for surely, they do maruellous soon take the taste and strength of pepper. And as for the weight, there be diuers waies to deceiue the chapman therein.

Ouer and besides, there is another fruit that cometh out of India, like vnto pepper cornes, and it is called Cloues, but bigger somewhat and more brittle. And they say, that it groweth in a certain groue consecrated to their gods in India. Transported ouer it is vnto vs for the sweet smell that it casteth.

Moreover, the Indians haue a thorny and prickly plant, which beareth a fruit like to pepper, and passing bitter: the leaues be smal and grow thick after the manner of Priuet: it putteth forth branches 3 cubits long: the bark is pale, the root broad and of a woody substance, resembling the colour of box. Of the infusion of this root in faire water, together with the seed, in a brazen vessell, is made that medicine or composition which is called Lycium. A bush there groweth likewise vpon mount Pelion [like Pyxiantha, i. the Berberie bush] whereof is made a counterfeite Lycium. In like manner, the root of the Asphodill, with an Oxe-gal, Wormewort, Frankincense, and the mother and lees of oile, will do the same: but the best Lycium, and most medicinal, is that which doth yeld a great froth or scum. The Indian merchants do send it ouer in bags made of the skins either of Camels or Rhinoceroses. In some parts of Greece they name the very bush whereof this Lycium is made, Pyxacanthum Chironium.

CHAP. VIII.

¶ Of Macir, Sugar, and the trees of the region Ariana.

THE Macir likewise is brought out of India. A reddish bark or rind it is, of a great root, and beareth the name of the tree it selfe: but the form of that tree I know not how to describe. This rind is sold in hony, & so condit as a Succade, is a singular good medicine for those that be troubled with the Dysentery or bloody flux: as for sugar, there is of it in Arabia; but the best comes out of India. * A kind of hony it is, gathered and candied in certaine Canes: white this is like gum [Arabick] and brittle between a mans teeth. The graines hereof when they are at the bigst, exceed not a silberd nut, and serue only for playfick. In the realm of Ariana (which consisteth and boundeth vpon the Indians) there is a certain thorny plant, so full of sharp prickles, that it is comberous to them who come about it; which yeeldes a precious liquor issuing out thereof, like to Myrrhe. In the same province there grows a pestilent venomous shrubbe called Rhaphanus, bearing leaues like the bay tree, which with their fragrant smell train horses thither to eat thereof; but they are so good for them, that they left not Alexander the Great scarce one horse of all his Caualerie, they died so fast of that food at his first entrance into the country. The like accident befell to him also among the Gedrosians. In like manner, there is another thornie plant (by report) in that region, leaved like the Laurell: the iuice and liquor whereof, if it be sprinkled or dashed in the eyes of any liuing creature whatsoever, puts them quite out and makes them blind. Moreover, they haue an herb there, of a singular pleasant savor, but couered all ouer it is with little venomous serpents: their sting is present death. Onesicritus reports, That in the vales of Hircania there be trees like fig-trees, which the Hircanians call Occhi, out of which there distills or drops hony euery morning for the space of two houres.

CHAP. IX. ¶ Of Bdellium: and the trees growing by the Persian gulf.

NEERE to these parts lies Baetiana, wherein is the most excellent Bdellium. The tree that beareth it is black, of the bignesse of an Oliue, with leaues like an Oke; and the fruit resembling

A bleth wild figs, and is of the same nature. The gum thereof, some call Brochos, others, Malachra; and there be again that name in Maldacon. Howbeit, when it is blacke, and brought into roles or lumps, they giue it another name, and call it Hadrobolon. But indeede the right Bdellium when it is in the kinde, should be cleare, as yellow as wax, pleasant to smell vnto, in the rubbing and handling fatty, in taste bitter, and nothing foure. Being washed and drenched with wine (as they vse it in sacrifices) it is more odoriferous. There is found of it in Arabia, India, Media, and Babylon. As for that which is brought out of Media, they call it Peraticum: this is more tractable and gentle in hand, more crusty and bitter than the rest. But the Indian Bdellium is the moister and more gummy: this is sophisticated with Almonds, whereas the other kinds be made counterfeite with the bark of Scordastus, a tree that yeelds the like gum. But this trumpery and deceit is found by the smell, colour, weight, taste, and fire. And let this one word for all, serue as a generall rule to proue all such drugs and spices by. The Baetrian Bdellium when it is in the fire, yeeldeth a dry and smoky fume, and hath many white markes in it resembling the nailles of ones fingers: besides, it hath his just poise and weight that it ought to haue, neither more nor lesse; for as it should not be ouer weighty, so it may be too light. Commonly the price goeth after this rate, to wit, three deniers a pound.

Vpon these regions aboue-named, consisteth Persis, whereas the red sea (which we named in our Geographic, the Persian gulf) floweth at certain tides far into the land, and in these sands and downes are to be seen diuers trees of strange natures: for when the tide is past, you shall see at a low water some trees with their roots bare, as if they were eaten with the salt water; & a man cannot tell whether they were brought thither with the tide, or left in the ebbe: but surely the naked roots seem to clasp & take hold of the barren sands, as if they were Polype fishes should cling to any thing. And yet the same, when the sea floweth again, notwithstanding they be beaten vpon with the waues, stand fast and stir not. Again, at some high water and spring-tide, they be couered all ouer with water: and by good arguments it is euident to the eie, That nourished they be with the roughnesse of the surging sea-water. Their heights is wonderfull: and fashioned they be in forme of an Arbut tree: the fruit without-forth like to Almonds, but the kernels within be writhed.

CHAP. X.

¶ The Trees of the Island Tylos within the Persian sea. Moreover of those trees that beare Wooll or Cotton.

WITHIN the same gulf of Persia, there lieth an Isle full of woods to the East side, euen vpon that coast which is ouerflowed with the tide. Euery tree within, is equall in bignesse to the fig-tree: the blossoms that they carry, are so sweet, as it is wonderful & vn-speakable: the fruit like a Lupine, yet so rough & prickly, as no beast will gladly touch it. In the highest part and knap of the same Island, there be trees bearing wooll, but not in such sort as those of the Seres: for whereas the leaues of those do carry a downe or cotton, these are altogether without and barren thereof: and but that they be somewhat lesse, they might seeme to be vine leaues. Howbeit they beare a fruit at the last, like Gourds in fashion, and as bigge as Quinces; which when they be full ripe, do open and shew certain bals within of down: whereof they make most fine and costly linnen clothes.

CHAP. XI.

¶ Of the Gossampine trees: as also of other Cotton or Bombase trees, whereof clothes be made. In what manner diuers trees do yeeld their fruit.

THERE is a lesser Isle named Tylos, ten miles from the other, where be trees called Gossampines, which yeeld more cotton than those in the greater. King Iuba saith, that this cotton groweth about the branches of the said trees, and that the linnens made thereof be far better than those of the Indians. As for those trees in Arabia whereof they make their linnen cloth, he affirmeth that they be called Cynæ, and haue leaues like the Date tree. Thus you see, how the Indians be clad with trees of their own. In those Islands called Tyli, there is another tree which beareth a blossome much like the floure of a White Violet, or Scock-gilloffe, but foure times

as big, which may seeme strange in that tract. And yet there is another Tree not vnlike to it, howbeit fuller of leaues, and bearing a blossome like to a Damaske or incarnate Rose. This floure shutteth close in the night, beginneth to open in the morning at the Sun-rising, and by noone sheweth out at the full. The inhabitants haue a by-word and saying among them, That it sleepest all night, and wakes in the morning. The same Island bringeth forth Date trees, Oliue trees, Vines, and amongst other fruits Figges also. No Trees there, doe shed their leaues: for the Island is well watered with cold and quicke-springs: and besides it hath the benefit of raine. As touching Arabia, which lieth neere and bordereth vpon these Islands, the spices and odoriferous fruits that be therein, are to be treated of with distinction: for their merchandise doth consist of roots, branches, barkes, juice or liquor, gums and rosins, wood, twigs, floures, leaues and apple.

CHAP. XII.

¶ Of Costus, Spike-nard, and the diuers kinds of Nard.

B Vt the root and leafe be of greatest price in India. And first and formost the root of Costus bites and burns in the mouth, and is of a most excellent and soueraigne smell: for otherwise the branches or body of the shrub is good for little or nothing. In the Island Patale (which lieth at the very first fosse and mouth where the riuer Indus falleth into the sea) there be found two kinds thereof: namely, the black, and the white, which is counted the better. A pound of Costus is held at 16 Roman deniers.

As touching the leafe of Nardus, it were good that we discoursed therof at large, seeing that it is one of the principall ingredients aromaticall that go to the making of most costly & precious ointments. The plant it selfe Nardus, hath a massie, heavy, & thick root; but short, black, and brittle, notwithstanding that it be fatty and oleous. Soone it vinoweth and catcheth a kind of mustiness: and like to the Cypress [or Cyperus] it hath a sharp tast, rough and smal leaues, but comming thick. The head of Nardus spreads into certain spikes or eares, whereby it hath a twofold vse, both of spike and also of leafe, in which regard it is so famous. A second sort there is of it growing along the riuer Ganges, condemned altogether as good for nothing, for it hath a strong and stinking fauor: whereupon it is called Ozunitis. There is an herbe growing euery where called Psendonardus, or bastard Nard, which is obruded vnto vs and sold for the true Spikenard. A thicker leafe it hath and a broader than the other: the colour is more pallat and weak, inclining to white. Also the very root of the right Nard, for to make the better weight, is mingled with gums, with Licharge of siluer, Antimony, or the rind of Cyperus. But the good, sincere, & true Nard is known by the lightnes, red colour, sweet smell, and the taste especially: for it drieth the tongue and leaueh a pleasant rellish behind it. The Spike carieth the price of an 100 Roman deniers a pound. As touching the leaues, the diuersitie thereof makes difference also in the price: for that which hath the larger leaues, and therupon is called Hadrosphærum, is worth 30 deniers a pound. A second sort there is with a smaller leafe, and of a middle size, named therefore Mesosphærum: and that is bought after 60 deniers the pound. But the best of all is that with least leaues, and carrieth the name of Microsphærum: and that the merchant selleth for 75 deniers the pound. What kind soeuer it be, the greener and newer it is, the better it is reputed, and more odoriferous, than that which hath been long kept. Yet say it be old gathered, if the colour hold and keepe well, men preferre it before the blacker, though it be new. With vs in Italie, and in this part of the World, the leafe of Nardus comming from Syria, is esteemed best: next to it the Celtick, out of France: and in the third place that of Candy, which some name Agrion, [i. the wild] others Plu: and this hath a leafe resembling Loueache or Alexanders, a stalke a cubite long full of ioints and knots, of a weake whitish and light purple colour; the root groweth crooked, full of strings and haire hanging to it, and is such like to birds clawes or feet. As for Baccharis, it is called likewise Rustick-nard: but of it wil speake among other floures. Al these kinds of Nardus are to be reckoned herbes, saue that on' of the Indians: of which, the Celticke or French Nard, is plucked and gathered together with the root: and for the better preparing thereof, it ought to be well washed and soaked in wine, and so dried in the shade out of the Sunne. Then is it made vp into certaine bundels of an handfull apeece, bound vp in papers, and differeth not much in goodnesse from the Indian Spikenard: Howbeit

A be it, lighter it is than that of Syria. A pound of it is worth at Rome 13 deniers. The only proof and triall of all their leaues is this, That they be not brittle, and rather ripe drie, than sere or rotten-dry, That they breake not and fall in pieces. With the Celticke and French Nard there euermore groweth another herbe, called Hireulus, and it taketh that name of a strong and Goatish smell which it yeeldeth: besides, so like it is vnto the other, that it is foisted in among the good, and so sold with it. Yet herein is the difference; for that this hath no stem or stalke at all; the leaues thereof also are lesse: and last of all, the root is neither bitter in taste, nor sweet in smell.

CHAP. XIII.

¶ Of Asura Bacca, Amomum, Amomis, and Cardamomum.

A Sarum or Fole-foot, called otherwise, Asura-Bacca, hath the very properties and vertues of Nard: and therefore some haue called it Wild Nard. An herbe it is, carrying leaues like to Iuie, saue that they be more round and softer: it putteth forth a purple floure, and hath a root like vnto the French Nard. The floure is full within of seeds like grape kernels, of an hot taste, and resembling wine. In shadowie mountaines it floures twice a yeare. The best groweth in Pontus, the next to it for goodnesse is found in Phrygia: that of Illyricum is of a third ranke. The root is digged vp when it beginneth to put forth leaues. They vse to dry it in the Sun: soon it wil vellow and be mouldy, quickly also it waxes old, and loses the strength. Of late daies there was an herbe found in Thracia, the leaues wherof differ in nothing from the Indian Nard.

As for the grape of Amomum, which now is in vse and much occupied, some say it groweth vpon a wilde vine in India. Others haue thought, that it commeth from a shrubbe like Myrtle, & carieth not aboue a hand-bredth, or 4 inches in height. Plucked it is together with the root: and gently must be laid and couched in bunches by handfulls, for if great heed be not taken, it will soone burst and breake. The best Amomum and most commendable, is that which carrieth leaues like to those of the Pomegranate, without riuels and wrinckles, and besides, of a red colour. The next in goodnesse is that which is pale. The greene or grasse coloured is not all out so good, but the worst of all is white: and that colour comes by age, and long keeping: a pound of these grapes intire and whole in the cluster, is worth 60 Roman deniers. But if they be crumbled and broken, it will cost but 48. This Amomum groweth likewise in a part of Armenia named Otene: also, in the kingdomes of Media and Pontus. It is sophisticated with the leaues of the Pomgranate, and with some other liquid gum besides, that it may hang vnited together and roll round into the forme of grapes.

Now as touching that which is called Amomis, it is lesse full of veins, and nothing so sweet smelling, but harder than Amomum: whereby it appeareth, that it is either a diuers plant from it, or els if it be the same, it is gathered before it be full ripe.

Cardamomum is like to these aboue rehearsed, both in name, and also in making and forme: but it bears a longer graine for seed. The maner also of gathering and cutting it downe, in Arabia, is the same. Foure kinds there be of it. The first is most green and fatty withal: hauing foure sharp corners, and if a man rub it between his fingers, he shal find it very rough and stubborne: and this is most esteemed of all the other. The next to it is somewhat reddish, but inclining to a whitish colour. A third sort is shorter, lesser, and blacker than the rest. Howbeit, the worst is that which hath sundry colours, is pliable and gentle in the rubbing, and smelleth but a little. The true Cardamomum ought to come neare in resemblance to Costus. And it grows in Media. A pound of the best will cost 12 deniers.

The great affinity or kinred rather in name, than Cinnamon hath with these spices before rehearsed, might induce me to write therof in one suite, euen in this place: but that more meet it is to shew first the riches of Arabia, and to set down the causes why that country should be synamed Happy and Blessed. Wee will begin therefore with the chiefe commodities thereof, namely, Frankincense and Myrrhe: and yet Myrrhe is found as wel in the Troglodites country, as in Arabia.

¶ Of Happy Arabia, that yeeldeth plenty of Frankincense.

THere is no region in the whole world that bringeth forth frankincense but Arabia: and yet is it not to be found in al parts therof, but in that quarter only of the Atramites. Now these Atramites inhabit the very heart of Arabia, and are a county of the Sabæi. The capitall city of the whole kingdom is called Sabota, seated vpon a high mountain: from whence vnto Saba, the only country that yeelds such plenty of the said incense, it is about 8 daies journey. As for Saba (which in the Greek tongue signifieth, a secret myserie) it regards the Sunne rising in Summer, or the North-East, enclosed on euery side with rockes inaccessible: and on the right hand it is defended with high cliffes and crags that beare into the sea. The soile of this territorie, by report, is reddish, & inclining to white. The Forrests that carry these Incense trees ly in length 20 Schænes, and beare in bredth half as much. Now that which we call Schænus, according to the calculation of *Eratoſthenes*, contains forty stadia, that is to say, fūe miles: how fœuer some haue allowed but 32 stadia to euery Schænus. The quarter wherein these trees grow is full of high hills: howbeit, go down into the plains and valley beneath, you shall haue plenty of the same trees, which come vp of their own accord, and were neuer planted. The earth is fat, and standeth much vpon a strong clay, as all writers do agree. Few Springs are there to be found, and those that be are full of Nitre. There is another tract by it selfe confronting this country, wherein the Minæans do inhabit: and through them there is a narrow passage, whereby the frankincense is transported into other parts. These were their first neighbours that did traffique with them for their Incense, and found a vent for it: and euen so they doe still at this day, whereupon the frankincense it selfe is called of their name, Minæum. Setting these people of the Sabæans aside, there be no Arabians that see an Incense tree from one end of the yere to another: neither are all these permitted to haue a sight of those trees. For the common voice is, that there be not about 3000 families which can claime and challenge by right of succession that priuiledge to gather incense. And therefore all the race of them is called Sacred and Holy: for looke when they go about either cutting and flitting the trees, or gathering the Incense, they must not that day come neere a woman to know her carnally; nay they must not be at any funerals, nor approach a dead corps, for being polluted. By which religion and ceremonious obseruation the price is raised, and the incense is the dearer. Some say, these people haue equall liberty in common to go into these Woods for their commodities when they will: but others affirme that they be diuided into companies, and take their turns by yeares. As concerning the very tree I could neuer know yet the perfect description of it. We haue waged warres in Arabia, and our Roman armie haue entred a great way into that country. *C. Caesar* the adopted son of *Augustus* wan great honour and glory from thence: and yet verily, to my knowledge, there was neuer any Latine Author, that hath put down in writing the form and fashion of the tree that carrieth incense. As for the Greeke Writers, their bookes doe vary and differ in that point. Some giue out, that it hath leaues like to a Peare tree, only they be somewhat lesse, and when they come forth they be of a grasse green colour. Others say that they resemble the Lentiske tree, and are somewhat reddish. There be again who write, that it is the very Terebints and none else, that giueth the Frankincense: of which opinion king *Antigonus* was, who had one of these shrubs brought vnto him. King *Iuba* in those books which he wrot and sent to *C. Caesar*, son to the Emperor *Augustus*, (who was inflamed with an ardent desire to make a voiage into Arabia, for the great fame that went thereof) saith, That the tree which beares Frankincense hath a trunke or body writhen about, and putteth forth boughes and branches like for all the world to the Maple of Pontus. *Item*, that it yeeldeth a iuice or liquour as doth the Almond tree; and such are scene commonly in Carmania: as also those in Egypt which were planted by the carefull industrie of the *Ptolomees*, Kings there. Howeuer it be, this is receiued for certaine, that it hath the very barke of a Bay tree: Some also haue said that the leaues be as like. And verily such kind of trees were they which were seen at Sardis: for the Kings of Asia likewise were at the cost and labor to transplant them, and desirous to haue them grow in Lydia. The Embassadors who in my time came out of Arabia to Rome, haue made all that was deliuered as touching these trees more doubtfull and vncertaine than before. A strange matter, and wonderfull indeed, considering that twiggos and branches of the Incense tree haue passed betwene:

G

H

I

K

L

M

b/

A by the view of which impes, we may judge what the Mother is: namely, euen and round in the bodie, without knot or knar, and from thence she putteth out shoots.

They vsed in old time to gather the Incense but once a yere, as hauing little vent, and small returne, and lesse occasion to sell than now adaies: but now, since euery man calleth for it, they feeling the sweetnesse of the gaine, make a double vintage (as it were) of it in one yere. The first, and indeed the kindly season, falls about the hottest daies of the Summer, at what time as the Dog daies begin: for then they cut the Tree where they see the bark to be fullest of liquor, and whereas they perceiue it to be thinnest and strut out most. They make a gash or slit only to giue more libertie: but nothing do they pare or cut cleane away. The wound or incision is no sooner made, but out there gusheth a fat some or froth: this soone congeales and growes to be hard: and where the place will giue them leaue, they receiue it in a quill or mat made of Date tree twigs, plaited and wound one within another wicker-wise. For elswhere, the floore all about is paved smooth, and rammed downe hard. The former way is the better to gathet the purer and clearer Frankincense: but that which falleth vpon the bare ground, prooues the weightier. That which remains behind, and stickes to the Tree, is parted and scraped off with kniues, or such like yron tooles; and therefore no maruell if it be full of shauings of the bark. The whole wood or Forrest is diuided into certaine portions: and euery man knowes his owne part: nay, there is not one of them will offer wrong vnto another, and encroch vpon his neighbors. They need not to set any keepers to look vnto those Trees that be cut, for no man will rob from his fellow if he might, so just and true they be in Arabia. But beleue me, at Alexandria where Frankincense is tried, refined, and made for sale, men canot look surely ynough to their shops and work-houses, but they will be robbed. The workman that is employed about it, is all naked, saue that he hath a paire of trouses or breeches to couer his shame, and those are sowed vp and sealed too, for feare of thrusting any into them. Hood-winked he is sure ynough for seeing the way to and fro, and hath a thicke coife or maske about his head, for doubt that he should bestow any in mouth or eares. And when these workmen be let forth againe, they be stripped starke naked, as euer they were borne, and sent away. Whereby we may see, that the rigor of justice canot strike so great feare into our thees here, and make vs so secure to keepe our owne, as among the Sabæans, the bare reuerence and religion of those woods. But to returne againe to our former cuts. That Incense which was let out in Summer, they leaue there vnder the Tree vntil the Autumne, and then they come and gather it. And this is most pure, cleane, and white.

A second Vintage and gathering there is in the Spring: against which time, they cut the bark before in the Winter, and suffer it to run out vntil the Spring. This comes forth red, and is nothing comparable to the former. The better is called Carpheotum, the worse, Dathiathum. Moreover, some say, that the gum which issueth out of the young trees is the whiter: but that which comes from the old, is more odoriferous. There be others also of opinion, that the better Incense is in the Islands. But King *Iuba* doth auouch constantly, that there is none at all in the Islands. That which is round like vnto a drop, and so hangeth, we call the male Incense; whereas in other things lightly we name the male, but where there is a female. But folk haue a religious ceremonie in it, not to vse so much as the tearme of the other sexe, in giuing denomination to Frankincense. Howbeit, some say, that it was called the Male, for a resemblance that it hath to cullions or stones. In very truth, that is held for the cheife and best simply, which is fashioned like to the nipples or teats that giue milk, standing thick one by another: to wit, when the former drop that distilled, hath another presently followeth after, and so consequently more vnto them, and they all seeme to hang together like bigs. I read, that euery one of these were wont to make a good handfull, namely, when men were not so hasty & eager to carry it away, but would giue it time and leisure to drop softly. When it is gathered in this sort, the Greeks vse to call it Stagonias and Atomus: but the lesser goblets they name Orobias. As for the small crums or fragments which fall off by shaking, wee called Manna, [*i. Thuris.*] And yet there be found at this day drops of Incense that weigh the third part of a pound, that is to say, about * 39 Roman deniers. It happened on a time, that king *Alexander* the Great being then but a very little child, made no spare of Incense, but cast still vpon the altar without all measure when he offered sacrifice. Whereupon, *Leonides* his tutor and schoole maister, by way of a light reproofe, said vnto him thus, Sir you should in that maner burne Incense when you haue once conquered those nations where there growes Incense. Which rebuke and checke of his tooke so deep a print in

or rather 3's
and a scrupie

Alexanders

Alexanders heart, and so well he carried it in memorie, that after he had indeed made conquest of Arabia, he sent vnto the said *Leonides* his Tutor, a ship full fraught and charged with Incense, willing him not to spare, but liberally to bestow vpon the gods when hee sacrificed. To returne againe to our historie. When the Incense is gathered (as is before said) conueighed it is to Sabota, vpon Cammels backs, and at one gate (set open for that purpose) is it brought into the citie. For by law forbidden it is on pain of death, to take any other way. Which done, the Priests there of the god whom they call *Sabis*, take the disme or tenth part of the Incense, by measure, and not by weight, and set it apart for that god. Neither is it lawful for any man to buy or sell, before that duty be paid: which serueth afterwards to support certaine publick expences of the citie. For all strangers and traouellers within the compasse of certain daies journey, if they come to the citie, are courteously receiued, and liberally entertained at the cost and charge of the said god *Sabis*. Caried forth of the country it cannot be, but thorough the Gebanites: and therefore there is a custome paid to their king. The head citie of that kingdom, *Thomna*, is from Gaza (the next port-towne in Iudæa toward our coast) seuen and twentie miles fourscore times told: and this way is diuided into 62 daies journey by Camels. Moreouer, besides the tyth aforesaid, there be measures bestowed vpon the Priests to their owne vse: and others likewise to the kings Secretaries and Scribes. And not only these haue a share, but also the Keepers, Sextons, and Wardens of the temple, the Squires of the bodie, the Guard and Pensioners, the kings officers, the Porters, Groomes, and other seruitors pill and poll, and euery one hath a snatch. Moreouer, all the way as they trauell; in one place they pay for their water, in another for fodder and pro-uender, or else for their lodging & itable room, & euery where for one thing or other they pay toll: so as the charge of euery Cammell from thence to the sea vpon our coast, commeth to 688 deniers: and yet we are not come to an end of payments. For our Publicanes and customers also belonging to our Empire, must haue a flecce for their parts. And therefore a pound of the best Incense will cost 16 deniers: of the second 15: and the third 14. With vs it is mingled and sophisticated with parcels of a white kind of Rosin which is very like to it; but the fraud is soone found, by the meanes aboue specified. The best Incense is tried and knowne by these markes, *viz.* If it be white, large, brittle, and easie to take a flame when it comes neare a coale of fire; last of all, if it still not abide the dent of the tooth, but flie in pieces and crumble sooner than suffer the teeth to enter into it.

CHAP. XV.

¶ Of Myrrhe, and the Trees that yeeld it.

Some haue written, That the Trees which beare the Myrrhe, doe grow confusedly here and there in the same woods, among the Incense Trees: but more there are who affirme, That they grow apart by themselves. And in truth, found they are in many quarters of Arabia, as shall be said when we treat of the seuerall species of Myrrh. There is very good Myrrh brought out of the Islands: and the Sabæns passe ahe seas, and trauell as far as to the Troglodites country for it. There is a kind of Myrrhe tree planted by mans hand in Hort-yards, and much preferred for it: is before the wild that groweth in the woods. These Trees loue to be raked, bared, and cleaned about the roots: they delight (I say) to haue the superfluous spurnes rid away from the root: and the more that the root is cooled, the better thiurth the Tree. The plant groweth ordinarily siue cubits high, but not all that length is smooth and without prickles: the bodie and trunke is hard and wrythen, thicker than the Incense trees: it is greatest toward the root: and so arises smaller and smaller, taperwise. Some say, that the bark is smooth and euen, like vnto that of the Arbut Tree: others againe affirme, that it is prickly and full of thornes. It hath a lease like to the Oliue, cut more crisped and curled, and withall it is in the end sharp-pointed like a needle. But King *Iuba* writes, that it beareth the lease of Loueach or Alifanders. There be who write, that it resembles the Iuniper, saue only that it is more rough and beset with sharp prickles. And some let not to dream & talke, that both Myrrhe and also Incense came from one and the same Tree. Indeed, the Myrrhe trees are twice cut and launced in one yeare, and at the same seasons, as well as the Incense trees: but the slit reacheth from the very roorvp to the boughes, if they may beare and abide it. Howbeit, before that incision be made, they sweat out of themselves a certain liquor called *Stacte*, which is very good Myrrh, and none better. As wel of this

A frank and garden myrrh tree, as of the wild in the woods, the Myrrh is better that is gathered or runs in Summer time. There is no allowance of myrrh offered and giuen to the god *Sabis*, as there was of Incense, because it is found in other countries. Howbeit the King of the Gebanites hath payed vnto him for toll and custome a fourth part of all that passeth through his kingdom. To conclude, whatsoeuer is bought in any market or place abroad, they put and thrust it hard together in leather bags one with another: but the Druggists and Apothecaries can soon separate the better from the worse, and be very cunning and ready to digest them according to the marks that they go by, as well of smell as fattinesse.

CHAP. XVI.

¶ Of Diuers kinds of Myrrhe: the nature, vertue, and price thereof.

Many sorts there be of Myrrh. Of all the wild kinds, the first is, that which groweth in the Troglodites country. Next to it is *Minæa*, in which rank you may place *Attramittica* and *Ausaritis*, which both come out of the realme of the Gebanites. In a third place reckon that which they call *Dianitis*. A fourth sort is gotten here and there in all parts, and budled together. In the first range is *Sembracena*, so called of a city within the kingdom of the Sabæans, and is next vnto the sea. The sixth they call *Dusaritis*. Besides all these, a white myrrh there is found but in one place, which ordinarily is brought to the city *Mesalum*, & there sold. The Trogloditick myrrh they chuse by the fattinesse thereof, and for that it seemes to the eye greener: it shewes also foule, rude, and if sauoured: but sharper it is, and more biting in mouth than the rest. The *Sembracene* hath none of these faults, but is pleasant and cheerful to see to, howbeit of small operation and strength. But to speake in a word, and once for all, the best myrrh is known by little pieces which are not round: and when they grow together, they yeeld a certain whitish liquor which issueth and resolueth from them, and if a man break them into morsels, it hath white veines resembling mens nailes, and in taste is somewhat bitter. A second degree there is in goodnes, when it sheweth sundry colors within. And the worst of all is that which within-forth is black, and the same is worse yet, if it be as black without. As touching the price of myrrh, it alters as it is more or lesse in request, and according as it meeteth with many or few chapmen. For ye shall haue *Stacte* sold sometimes for 6 deniers a pound, and otherwhiles for 50. The greatest price of the garden frank-Myrrh, or that which is set by mans hand is 22 deniers. The red called *Erythrea* is neuer aboue 16: and this is taken to be the true myrrh of Arabia. The kernell within of the Trogloditick Myrrh will cost 13 deniers a pound: but that which they call * *Odoraria* is sold for 14. All kinds of Myrrh be mingled and sophisticated with pieces of Masticke comming from the *Lentiske*, and with other gum: *Item* with *Elaterium* [i. the iuice of the wild cucumber] to make it more bitter: as also, that it might seem weightier, with the some of lead, or litharge of siluer. And surely setting aside these two corruptions, all the rest are found by the very tast of the gum, which also will sticke vnto the teeth in the chewing. But the craftiest and finest deuice to counterfeit it, is with Indian myrrh, gathered there from a certain thorny plant which growes among them. This is the onely thing that India bringeth forth worse than other countries. And verily so bad it is, that soone it may be knowne from other myrrhes.

CHAP. XVII.

¶ Of Mastick, Ladaxum, and Bruta of Enhamus, Strobis, and Styrae.

From the foresaid Myrrh therefore last named, let vs for the affinitie passe to Mastick: which comes also of another thorny tree in India, as also in Arabia, called *Lama*. Howbeit of Mastick there be two sorts: for both in Asia and also in Greece there is found an hearbe, which directly from the root putteth forth leaues, and it beareth a bur or thistle head like an apple, full of seeds. Cut the top of this herbe, and there will issue forth a certain liquor so like vnto the right mastick, that hardly a man shall know the one from the other.ouer and besides, there is a third sort of Masticke in Pontus, more like to Bitumen. Howbeit, the very best Mastick is brought out of the Island *Chios*, and the same is white, and a pound of it is worth in Rome 20 deniers: but the black ye shall buy for twelue. As for the Chian Masticke, it issueth forth

* or *Adoraviz*,
i. *Soyamabiz*,
which serueth
for perfuming
in temples.

forth as a gum out of the Lentisk tree. Mingled this is also like as frankincense, with rosin. **G**

Moreover, Arabia doth glory even yet in their Ladanum. And many haue reported, that this comes by fortune or chance, and by occasion of violence and wrong done to an odoriferous plant that yeeldeth it in this manner following: The Goats they say, harmefull creatures as they be to all plants, but more desirous to be brousing of sweet and aromaticall shrubs (as if they knew how precious they were) vse to crop the sprouts and sprigs of this plant which beareth Masticke, which being full of this odoriferous and sweet liquor, that they smel again, doth drop and distill the said moisture, which the shrewd and vnhappy beast catcheth among the shag long haire of his beard. Now by reason that dust getteth among, it baltereth & clutrereth into knots and balls, and so is concocted into a certaine consistence in the Sunne. And hereupon it is, that in Ladanum are found goats haire. But this hapneth by their saying, in no other place but among the Nabateans in the frontiers of Arabia toward Syria. The later moderne writers call the plant which yeeldeth Ladanum, Strobos: and they affirme, That in the Forrests of Arabia where these do grow, the boughes are much broken by the brousing of these goats, and so the iuice and liquor stickes to their locks and beards. But the true Ladanum (say they) is peculiar to the Island Cyprus (for, giue me leaue I pray you, to speake by the way of every kind of spice and aromaticall drugs, & not strictly to keep & obserue the order & consequence of places where they be found.) And by report, after the same manner as this Ladanum in Arabia, there hangeth and cleaueth to the beards and shagge haired legs and flankes of the goats there also, a certain grease and fattinesse called Oesypus: but, according to them, it must be gotten when they crop off the leaues and floures of the herbe Cistus, in a morning for their breakefast, at what time as the Island Cyprus standeth all with a dew. Now when the morning mist is dispatched by the heat of the Sunne, there gathereth dust amongst these moist and wet haire of theirs, and sticketh to: and then the Islanders come and comb from their beards and flankes that which the call Ladanum. Some call that plant in Cyprus whereof it is made, Ledon: and in truth thereof it taketh the name of Ladanum amongst them. For by their report, this herbe hath a fatty substance setting vpon it, and the peasants of the countrey roll the herbs together into balls or rundles, with small cords, and so make vp those little lumpes ye see. By which we may perceiue, that as well in Arabia as Cyprus there be two kinds of Ladanum: the one mixed with earth, and naturall of it selfe: the other brought into balls and artificiall. The earthy is brittle and will crumble: the artificiall is tough, clammy, and will cleaue to ones fingers. Moreover, it is said that there be certain shrubs in Carmania that beare Ladanum, as also about Egypt, by occasion of plants thither brought by the *Ptolomes*, kings of Egypt: or as some say it is the Incense tree that bringeth it forth: and is gathered after the manner of a gum issuing out of the tree by incision made in the barke, and is receiued in goat skins. The best Ladanum is worth forty Asses a pound. Sophisticated it is with Myrtle berries, and with other filth of beasts. The good Ladanum indeed, which is of it selfe without other mixture, ought to haue a wild and sauage smell with it, as if it came out of a wildernesse. Greenish it is, and drie to see to: but handle it neuer so little, and presently it doth relent and wax soft. Set it on fire, and it burneth bright and cleare, and then it casts a sweet and pleasant odour. But all that is counterfeit and mixed with myrtle berries may soon be knowne, for they will crackle in the fire. Besides, the true Ladanum hath rather stony grit comming from the rockes, mingled with it, than dust. **I**

In Arabia, the Oliue tree also hath a kind of liquour which issueth out of it: and thereof is compounded a certain soueraign salue named of the Greeks Enhæmon, which is singular good to draw vp wounds and heale them clean. In the maritime parts and sea coasts the said Oliue trees at some tides are ouerflowed with the waues. Yet receiue the Oliue berries no hurt thereby: notwithstanding it be certain, that the sea doth leaue salt vpon the leaues. Thus you see what be the peculiar commodities as touching trees, proper vnto Arabia. True it is that it hath others besides, but because they be found elsewhere, and knowne to be better in other places than in Arabia, I will treat of them in their course and ranke when it commeth. And yet Arabia it selfe, as fruitfull and happy as it is in this behalfe, is wondrous eager in seeking after forreine spices, and sendeth for them into strange countries. So soone are men gluttred and haue their fill of their owne: and so greedy and desirous be they of other countries commodities. **M**

They

A They send therefore as far as the Helymæans, for a tree named Bruta, like to a spreading cypres, hauing boughes couered with a whitish bark, casting a pleasant smelling perfume when it burneth, and highly commended in the chronicles and historie of *Claudius Casar* for strange vertues and wonderfull properties. For he writeth, That the Parthians vse to put the leaues thereof in their drinke, for to giue it a good tast and odoriferous smell. The odour thereof resembleth the Cedar very much: and the perfume is a singular remedie against the stinking and noisome fumes of other wood. It groweth beyond the great channell of the riuer Tigris, called Pasitigris, vpon the mount Zagrus neare vnto the citie Citaca.

They send moreover to the Carmanians for another tree called Strobos, and all to make sweet perfumes: but first they infuse the wood thereof in Date-wine, and then burn it. This is an excellent perfume: for it wil fill the whole house, rising vp to the chambers aloft to the arched feelings of the rouse, and returning downe againe to the very floore and ground beneath, most pleasantly. But it stuffes a mans head, howbeit without any paine or ach at all. With this perfume they procure sleep to sick persons. And for the traffick of this commodity, the merchants meet at the citie Carras, where they keep an ordinarie faire or mart: and from thence they went customably to Gabba, twentie daies journey off, where they were wont to haue a vent for their merchandise, and to make returne: and so forward into Palettine of Syria. But afterwards (as *K. Inba* saith) they began to go to Charace, and to the kingdom of the Parthians, for the same purpose. For mine owne part, I thinke rather with *Herodotus*, That the Arabians transported these odours and spices to the Persians first, before that they went therewith either into Syria or Egypt: and I ground vpon the testimonie of *Herodotus*, who affirmeth, That the Arabians paid euery yeare vnto the KK. of Persia the weight of a talent in Frankincense, for tribute.

Out of Syria they bring back Storax, with the acrimonie and hot smell wherof, being burnt vpon their hearths, they put by and driue away the loathsomnesse of their own odors, wherewith they are cloyed: for the Arabians vse no other fuell at all for their fires, but sweet wood. As for the Sabæans, they seeth their meats in the kitchin, some with the wood of the Incense tree, and others with that of Myrrhe: in so much as both in citie and countrey their houses be full of the smoke and smell thereof, as if it came from the sacrifice vpon the altars. For to qualifie therefore this ordinarie sent of Myrrhe and Frankincense wherewith they are stuffed, they perfume their houses with Storax, which they burne in Goats skins. Lo, how there is no pleasure whatsoever but breeds lothsomnesse, if a man continue long to it. The same Storax they vse to burne for the chasing away of Serpents, which in those forests of sweet trees, are most rife & common. **E**

CHAP. XVIII.

Of the felicitie of Arabia.

N Either Cinamon nor Cassia doe grow in Arabia, and yet is it named Happie: vnworthie country as it is, for that surname, in that it taketh it selfe beholden to the gods about therefore, whereas indeed they haue greater cause to thanke the infernal spirits beneath. For what hath made Arabia blessed, rich, and happie, but the superfluous expence that men be at, in funerals, employing those sweet odors to burne the bodies of the dead, which they knew by good right were due vnto the gods. And verily it is constantly affirmed by them who are acquainted well with the world, and know what belongeth to these matters, That there commeth not so much Incense of one whole yeares increase in Saba, as the Emperor *Nero* spent in one day, when he burnt the corps of his wife *Poppea*. Cast then, how many funerals euery yeare after were made throughout the world: what heaps of odors haue been bestowed in the honor of dead bodies: whereas they offer vnto the gods by crums and graines only. And yet when as men made supplication to them with the oblation of a little cake made with salt, and meale, and no more; they were no lesse propitious and merciful, nay they were more gracious and fauourable a great deale, as may appeare by histories. But to returne againe to Arabia, the sea enricheth it more than the land, by occasion of the orient pearles that it yeeldeth and sendeth vnto vs. And surely our pleasures, our delights, and our women together, are so costly vnto vs, that there is not a D yeare goeth ouer our heads, but what in pearles, perfumes, and silkes; India, the Seres, and that demy-Island of Arabia, stands vs at the least in an hundred millions of Sesterces, and so much fetch they from vs in good money, within the compasse of our Empire. But of all this masse of Spice

Spice and Odors, how much (I pray you) commeth to the seruice of the coelestiall gods, in G
comparison of that which is burnt at funerals, to the spirits infernal!

CHAP. XIX.

¶ Of Cinamon, and the wood thereof called *Xylocinnamomum*.
Also of Canell or Casia.

FAbulous antiquitie, and the prince of liyers *Herodotus*, haue reported, That in that tract where *Bacchus* was nourished, Cinamon and Canell either fell from the nests of certaine fowles, and principally of the Phoenix, thorough the weight of the venison and flesh which they had preyed vpon and brought thither whereas they builded in high rockes and trees; or else was driuen and beaten downe, by arrowes headed with lead. Also that Canell or Casia was gotten from about certaine marishes, guarded and kept with a kind of cruell Bats, armed with terrible and dreadfull tallons, and with certain flying Pen-drags. And all these deuises were inuented only to enhance the price of these drugs. And this tale is told another way, namely, That in those parts where Canell and Cinamon grow (which is a country in manner of demy-Island, much enuironed with the sea) by the reflection of the beames of the Noon-sun, a world of odoriferous smells is cast from thence, in such sort, that a man may feele the sent at one time of all the aromaticall drugs as it were met together, and sending a most fragrant and pleasant fauour far and neare: and that *Alexander* the Great sailing with his fleet, by the very smell alone discovered Arabia a great way into the maine sea. Lies all, both the one and the other: for Cinamon or Cinamon, call it whether you will, groweth in *Æthiopia*, a countrey neare vnto the Troglodites, who by mutuall marriages are linked together in great affinity. And in very truth the *Æthiopians* buy vp all the Cinamon they can of their neighbours, and transport it into other strange countries ouer the vast Ocean, in smal punts or boats, neither ruled with helme and rudder, nor directed to and fro with ores, ne yet caried with sailes or any such meanes of navigation: one man alone shall see you there in a boat, armed and furnished with boldnesse only in stead of all, to haue himself and his goods in the surging sea. These fellows, of all times of the yeare, take the dead of the winter, and then (to chuse) they will venter to crosse the seas for their voyage, when the Southeast winds are aloft & blow lustily. These winds set them forward in a streight and direct course thorough the gulfes; and after they haue doubled the point of *Argeste*, and coasted along, bring them into the famous port or haven-towne of the *Gebanites*, called *Ocila*. And albeit this voyage be long & dangerous (for the merchants hardly can return in five yeres, and many of them miscarie by the way) yet by report they are nothing dismayed and daunted therewith, but willingly aduenture still. And being at *Ocila*, what thinke you doe they exchange for, and wherewith fraight they their vessels back againe homeward? even with glasse, vessels of copper and bras, fine cloth, buckles, claspes, and pincers, bracelets and carcanets, with pendant Jewels: so as a man would verily thinke, that this trafficke were maintained and the voiaiges enterprised vnder the credit & for the pleasure of womankind especially. Now as touching the plant that bears Cinamon, the tallest is not above 2 cubits high about ground, nor the lowest vnder one hand-breadth or 4 inches: in compasse about 4 fingers thicke: immediately from the earth it putteth forth twigs, and is full of branches of six fingers length, but it looketh as if it were drie and withered: while it is greene it yeelds no smell at all, and the leaf resembleth *Origan*: it loues drought, for in rainie weather it is lesse fruitfull, and yet it is of this nature. To be cut as a coppis. It will grow verily in plaines, but gladly it would lodge among the thickest rough of bushes, greeces, & briers that are to be found: so as men haue much adoe to come by it and to gather it: but neuer is cut or cropped without especiall permission of a certaine god, which they take to be *Iupiter*; and this patron of the Cinamon tree, they call *Assabinus*. To obtaine leaue and license so to do, they are glad to sacrifice the inwards of 44 Kine or Oxen, Goats also and Rams: and when they haue all done, yet permitted they be not to go about this businesse either before the Sun rising, or after his setting. Now when these twigs and branches be cut, the Sacrificer or Priest diuides and parts them with a iavelin, and sets by one portion for the god abovesaid: the rest doth the merchant put vp and bestow in paniers for the purpose. This manner of diuision is otherwise reported, namely, That the whole heap is cast into three parts, whereof the sunne hath one for his share: but they draw lots first for every one

A one of these trees feuerall bundles or parcels of Cinamon sticks; and that which falleth to the Sun is let alone and left behind: but of the own accord it catcheth a light fire and burneth. The best Cinamon is thought to be that which growes about the slenderest sticks, for the length of an hand bredth from the vpper end. The second sort in goodnesse is that which is next it, and somewhat lower, but it beareth not full so much as an hand bredth, and so consequently in order by degrees downward; for the worst and of least price is that which is neere the root, because there is least barke, the chiefe thing required in Cinamon: which is the cause that the twigs in the tree top are preferred before the rest, for that in them there is most barke. As for the very wood it selfe, which is called *Xylocinnamomum*, there is no reckoning made of it, because of the acrimonic and sharpenesse that it hath, resembling *Origan*. A pound thereof is worth 20 deniers. Of Cinamon there be (according to some) two kinds; to wit, the whiter and the blacker. In times past, the white was in more request: but now adae the black is most set by: yea, and that of diuers colours is better esteemed than the white. But the truest marke indeed to chuse the best, is to see that it be pottough, and that it crumble not quickly if one piece be rubbed against another. That which is tender and hath besides a white bark, is not regarded at all, but condemned for the worst. Moreouer, this is to be noted, that the King onely of the *Gebanites* setteth the price and sale of Cinamon: he it is that selleth it in open market according as it is by him taxed. In old time a pound of it was sold for 1000 deniers, and this price afterward rose higher by one halfe, by reason that the Forrests of Cinamon were (as men say) burnt by the barbarous Troglodites their neighbors in their furious wrath. Now why it should be so deare, no man certainly knows: whether it were through the great rich merchants who ingrossed all into their hands by way of monopoly, or by some other casualtie and chance of fire aforesaid. But true it is and well knowne by that we find in diuers writers, That there be such hot Southerne windes blowing in those parts, that in Summer many times they set the woods on fire. *Vespasian Augustus* the Emperor was the first that dedicated in the Temples of the Capitoll and goddesse *Peior*, garlands and chaplets of Cinamon enclosed within fine polished gold. In that temple which the Emperesse *Augusta* caused to be built in the palace vpon Mount *Palatine*, for the honor of *Augustus Caesar* late Emperor, her husband, I haue myself seen a Cinamon root of great weight, set in a cup of gold, which yearly did put forth certain drops which congealed into hard grains. That monument remained there to be seen, vntill the Temple and all was consumed by fire.

E As concerning Casia or Canell, a plant it is, which groweth neer to the plains from whence the Cinamon comes; but it loeth to liue vpon mountaines, and beareth a bigger and rounder wood in the branches than the Cinamon, and hath a thin rinde or skin, more truly than a bark: the slenderer that the same is, and lighter, the more reckoning is made of it, clean contrary to the Cinamon. This shrub that beareth Casia groweth to the height of 3 cubits: and 3 colours it carrieth; for when it comes vp first, for a foot from the root it is white: then as it shooteth halfe a foot higher it waxeth red: but as it riseth farther it is blackish: and this part is held for the best; and so the next to it in a degree lower: but the white is of no regard at all, and therefore they neuer cut the twigs and branches neere the root, nor about two cubits in length. And when they haue cut them in this manner, they presently sow them vp in greene skinned of four-footed beasts, killed new and fresh for that purpose, that of their corruption and putrefaction there might breed certaine wormes to eat out the wood within the barke, and so make it hollow; for the bark is so bitter that the worm will not touch it. The newest and freshest Canell is reputed best, and that which hath a most delicate smell; very hot in the mouth, and burning the tongue, rather than gently warming it without any great biting. Such Canell is of a purple colour, and very light in hand; which seeming much to the eye, yet weigheth little: besides, the pipes be but short, and the outward rinde or coat is not brittle and easie to fall in pieces. This elect and choicest Canell the barbarous people call *Lacta*. Another sort there is named *Balsamodes*, because it hath a smell resembling Balm: bitter it is in the mouth, & therefore of more vse in physicke; like as the blacke is most employed in sweet perfumes and oynments. There is no drugs that varieth more in price than the Canell: for whereas the best will cost fifty deniers Roman a pound; all the rest a man may buy for five.

CHAP. XX.

¶ Of *Iso-cinnamon*, *Concamum*, and *Tarum*.

THe Hucksters and regraters that buy and sell againe haue another kinde, which they call *Daphnoides*, and they fyname it *Iso-cinnamon*: and surely they hold it at 300 deniers a pound. Mingled it is and made counterfeited with *Storax*, with the smallest and tendrest branches also of *Lawrell*, for the likenesse it hath to the bark thereof. Moreover, it is set & planted in our part of the world here in Italy, also in the vtmost marches and confines of our Empire, along where the riuer *Rhine* runs, it liueth, being set neere vnto *Bee-hiues*. Howbeit, because it wants the parching heate of the Sun, it is nothing so deepe coloured; and thereupon also it comes short of the smell that the other hath. Out of the regions which bound on those parts where *Casia* and *Cinamon* groweth, there are brought ouer vnto vs two other spices, called *Concamum* and *Tarum*: but by the way of the *Troglodite Nabathæans*, who onely of the antient *Nabathæans* there settled and remained,

CHAP. XXI.

¶ Of *Serichatum*, *Gabalium*, and *Myrobalanum*, [*i. Ben*.]

IN the same country, the *Arabians* come charged also with *Serichatum* and *Gabalium*: but they make an hand with it among themselves, and spend it quite: in such sort, as their drugs are known only in name to vs in this part of the world, albeit they grow together with *Cinamon* and *Casia*. And yet otherwhiles there is *Serichatum* brought vnto vs, which some perfumers vse to put into the composition of ointments. And a pound of it is commonly exchanged for six deniers.

As for *Myrobalanum*, [*i. Beben*] it growes ordinarily in the region of the *Troglodites*, about *Thebais*, and that part of *Arabia* which diuideth Iury from *Egypt*: a drug that Nature hath brought forth only for ointment, as the very name giueth it. Whereby it appeareth also, that it is a very nut of a certain tree, which beareth leaues like to *Heliotropium*: whereof we wil speak among other herbs. The fruit that this plant beareth is about the bignes of a silberd nut. That which growes in *Arabia*, and yet called *Syriaca*, is white: but contrariwise that about *Thebais* is black. The former of these two is commended for the goodnesse of the oile which is pressed out of it: but the *Thebaick Ben* is in greater request for the plenty that it yeeldeth. As for the *Trogloditick*, it is the worst of all, and the cheapest. And yet some there be that prefer the *Æthiopian Ben* before all other. The Nut and fruit thereof is black and fat, with a smal and slender kernell within: howbeit the liquor pressed forth of it is more odoriferous: and it groweth in champion countries and plains. It is affirmed moreover, that the *Egyptian Ben* is more oleous and fat, hauing a thicker shell, and the same red. And albeit that it grow in marish ground, yet is it a shorter plant and more dry than the others. But contrariwise they say, that the *Arabick* is green of colour, and thinner in substance: and for that it groweth vpon the mountaines it is more massie and weighty. But the best simply by many degrees, is that *Ben* which is called *Petræa*, coming from about the town abouesaid, with a blackish rind, & white kernel. Now the *Perfumers* and *Apothecaries*, do presse only the husks and shels; but the *Physitians* extract an oile out of the very kernels, which as they stamp, they poure hot water euer and anon vnto it, by little and little.

CHAP. XXII.

¶ Of *Phœnicobalanus*, *Calamus odoratus*, and *Squinanth*.

THe *Date* in *Egypt* called *Adipos* hath the like vse in ointments, and is next in request for such odoriferous compositions, as the *Myrobalanus*, or *Ben* aforesaid. Green it is in colour, it smelleth like vnto a *Quince*, and hath no woody stone within. But to serue for those purposes aboue recited, it must be gathered somewhat before it beginneth to ripen. That which is left behinde vngathered is called *Phœnicobalanus*. This waxeth blacke, and maketh them drunke that eat thereof. As for *Myrobalanus*, or *Ben*, it is worth two *Romane* deniers a pound.

A pound. The occupiers and shopkeepers call the very setting and grounds of their ointment and compositions, by the name of *Myrobalanon*.

Moreover, within *Arabia* there growes also the sweet *Calamus*, which is common to the *Indians* & *Syrians* likewise. That of *Syria* passeth all the rest, and comes vp in a tract of that countrey, distant from the coast of our Sea fiftie stadia. Between mount *Libanon*, and another mountain of no account [for it is not *Antilibanon* as some haue thought] in a little vale beneath neer vnto a lake, the marshes and flats whereof are drie in Summer for the space of thirtie stadia, there grow both sweet *Calamus*, and also *Squinanth* or *Iuncus Odoratus*, [*i. the Sweet-rush*.] For let vs speak also in this place of the said *Scænanth*: and although it be but a rush, and another booke is appointed for the treatise and historie of such Hearbes, yet because we handle the Species that go to the composition of sweet Perfumes, Pomanders, & ointments, I canot passe it ouer. Well then, neither the one nor the other of these twaine, differ in sight from the rest of that kind. But *Calamus* is the better of the twaine, and hath a more pleasant smell; for a man may wind the sent of it presently a great way off: besides, it is softer in hand: and better is that which is lesse brittle, and breaketh in long spils and shuiers, rather than knappeth off like a *Radish* root. Within the pipe of this reed, there lieth a certaine matter like vnto a *Spiders-web*, which the *Apothecaries* call the flower of it, and that *Calamus* is counted better, which hath more in it of these floures. There is another mark also of good *Calamus*, namely, if it be black: and yet in some place, they make no reckoning of the blacke *Calamus*. But in a word, the shorter and thicker that the reed is, the better is the *Calamus*: and the same is more supple and pliable when a man would breake it. As for *Calamus*, it is worth eleuen deniers the pound: but *Squinanth* is sold for fifteen. Moreover, some say that there is a sweet rush or *Squinanth* found in *Campania*. And now are we gone from those lands that coast vpon the deep ocean, and come to those that confront and lie vpon our *Mediterranean* seas.

CHAP. XXIII.

¶ Of *Hammoniacum*, and *Spagnum*.

TO begin withall, in the sands of those parts of *Affrick*, which lie vnder *Æthiopia*, there is a liquor distilled, called in Greeke *Hammoniacum*, of *Hammon*, which signifieth Sand, and the Oracle of *Iupiter Hammon*, for neare vnto the temple where the said Oracle returns Answers, there grow certaine trees within the sands, which they call *Metopia*, from which, *Hammoniacum* droppeth in manner of a rosin or gum: and of it there be two kinds: the one is named *Thrauston*, like vnto the male or better *Frankincense*, and is most esteemed: the other is fat and full of rosin, and they cal it *Phyrama*. The manner to sophisticate *Hammoniacum*, is with sand, to make men beleue that it grew among the sands, and gathered it in the growing and coming vp: and therefore the good *Ammoniacum* is known when it is in least morcells, and those very cleare. The price of the best is after fortie asses the pound.

Beneath these quarters, and within the prouince *Cyrenaica*, there is found a passing sweet Mosse, called *Sphagnos*; and of some *Bryon* [aromaticum.] Of all such Mosses, this is thought to be the best. Next vnto it, is that of *Cyprus*: and in a third ranke, the mosse which groweth in *Phœnicia*. There is such Mosse (by report) in *Egypt*, and likewise in *France*: whereof, for my part, I make no doubt: for they be nothing else but the grey and whitish haire that we see hang to trees, and about the oke especially, called commonly Mosse; but only that these be sweet and odoriferous. The cheife praise is of the whitest and lightest: a second commendation belongs to that which is red: but the blacke is worth nothing, neither is any reckoning made of that which groweth in Islands and rockes, and (to conelude) all those that smell not as Mosse should, but rather like to Dates, or the plants whereof they come.

CHAP. XXIII.

¶ Of *Cyprus*, *Aspalathus*, and *Marum*.

THere is a tree in *Egypt* called *Cyprus*, bearing leaues like to *Ziziphus* or the *Iujube* tree, and a grain resembling *Coriander* seed, with a white floure very pleasant and sweet. These floures be steeped and sodden in common oile: out of which is afterwards pressed medicinal

cinable oile called Cyprus, or Cyprinum. A pound of it will cost five Roman deniers. The best comes from that tree which growes vpon the bankes of that riuer Nilus about Canopus, which is the first mouth where it discharges it selfe into the sea. The second in goodnesse groweth about Ascalon a citie of Iudaea. The third in worth for smell and sweetnes, is had from the Isle Cyprus. Some take this Cyprus to be the plant, which in Italy is called Ligustrum. [i. Priuet.] In the same tract groweth Aspalathus: a white thornie shrub it is, of the bignesse of a small tree, and beareth a floure resembling a rose. The root of it is in request for the making of sweet perfumes and ointments. There goes a common speech, That euery plant ouer which the rainbow is seen bent, will cast the same sent that Aspalathus doth: but if it chance that the rainbow settle ouer Aspalathus, then it wil yeeld a sweet sauer incomparable, and such as cannot be expressed. Some call it Erysicptrum, others Sceptrum, simply. The good Aspalathus is red, or rather of a ferie colour, massie and heauie in hand, with a smell of Castoreum. It is sold for fiftene deniers the pound.

In Ægypt likewise there groweth Marum, but it is not so good as that of Lydia; for it hath greater leaues, and those spotted with sundry colours; whereas the other hath little short leaues, but they smell passing sweet.

CHAP. XXV.

¶ Of Baulme, as well the liquor thereof called Opobalsamum, as the wood named Xylobalsamum. Also of Storax [Calamita] and Galbanum.

But the Baulme is that sweet and odoriferous liquor that goes beyond all others. The tree that yeelds it, Nature hath bestowed only vpon the land of Iurie. In old time it was not to be found but in two parkes or hortyards, belonging both to the kings of Iurie, whereof the one contained not aboute twentie jugera or acres, the other not so much. The Emperors *Vespasians*, both father and son, brought one of those little Balm trees to Rome, and shewed it openly to the whole citie. *Pompey* the Great likewise made proud boast and vaunted much, when hee said, That trees also by him were borne in triumph. Now this Balm tree serueth and doth homage, yea is tributarie with the whole nation where it groweth: but it is of a nature far different from that which both our Latine writers, & those also of forrain countries, haue described: for thore like it is to a vine than a Myrtle. It is planted by slips and branches, as the vine: and of late bound and tied also like a young vine. It spreadeth and filleth the hills where it is set, after the manner of those vines in vineyards, which without any helpe of props, support and beare vp themselves. Cut likewise it is, pruned, and cleansed, from those superfluous shoots that it puts out. It loneth to be well husbanded, digged about, raked, and trimmed: and with this ordering, growes apace, so as within three yeres it is fruitfull. It beares a leafe much like to Rue, and continueth with a greene head all the yere long. At the sacking and destruction of Ierusalem, the Iewes in a furious rage both against their owne persons & their goods, would needs haue wreaked their anger and been reuenged on the poore Baulme trees, and haue spoiled them for euer: but the Romans on the other side stood in their defence, so as about this very plant, there was a cruell battell fought. But now these trees are vnited vnto the domaine of our Empire: and by order from the state, are set and maintained: so as neuer at any time before, were they more in number, or taller of growth: howbeit the highest exceeds not two cubits. And three sorts there be of them. The first hath small branches and small like haire; whereupon it is called Eutheristos, [i. easie to be cut or lopt.] The second, rough and rugged to see to, bowing and bending forward, full of twigs and branches; sweeter also than the other to smell to, and this they name Trachy in Greeke, which is as much to say as Rough. The third they call Eumeces, because it is higher than the rest, and it hath besides a smooth barke: this in goodnesse is the second; and the first, named Eutheristos, is the worst. The fruit or seed that the Baulme tree beareth resembleth wine in tast, of colour red, and it is not without a certaine veine of fat. The worst part of the graine or fruit, is the lighter in weight, and the greener. It is clad with boughes and leaues thicker than the Myrtle. Now, for to draw the precious liquor out of it called Baulme, incision ought to be made in the barke, with glasse-knives, with sharp flint stones, or lancets of bones. For it may not abide, that any instrument of yron or Steele should come neare vnto the quicke; it dieth presently if you touch the heart of it therewith: and yet the same will suffer all superfluous

A superfluous boughes and branches to be cut off and pruned. But he that launceth and maketh incision, must guide and gage his hand very artificially in the cutting, that he go not too deep, nor perce a jot farther than the barke. This feat being wought, there issues out of the wound a juice or liquor, which they call Opobalsamum, of an excellent and surpassing sweet smell: but it comes forth by small drops: and as it thus weepes, the teares ought to be receiued in wooll, and then afterwards it is gathered and laid vp in small hornes. Out of which it is poured into earthen pots that neuer were occupied. This Baulme when it is fresh and new, may be likened to Oile, in thicknesse and consistence, but in colour it is white; in time it growes reddish, and hard withall, howbeit, cleare and transparent, that a man may see thorough it. During the wars that *Alexander* the Great waged in Iurie, it was ordinarie in a Summers day to gather one spoonefull of this liquor, and that was all that might be done. And when the season serued best for this purpose, and that it was counted a plentifull yere, the greater hort-yard or parke of the kings aboutesaid, neuer yeeldeth in all aboute 6 gallons, and the lesser but one: sold it was commonly for the double weight in siluer. But at this day, euery tree that may beare it, and hath a larger veine to abide incision, is launced thrice in a summer: and after that, it is lopt and shread. And those cuttings are good chaffer, and sold very well to the merchant. For being thus lopped once in 5 yeres at the farthest, they yeeld in branches for wood only, eight hundred deniers. This is called Xylobalsamum, and it goes into odoriferous compositions: for in default of the right Baulme liquor, the Apothecaries make a shift to serue their turne with the wood alone, called Xylobalsamum. As for the very bark, it enters also into many medicinable confections: no maruell therefore if it carrie some price. But it is the liquor only that is so precious, the liquor it is which yeelds that most fragrant smell; then followes the grain or fruit in a second degree, the bark in a third, and the wood as it is last, so it hath least grace and credit. Of the wood, the best is that which in color resembles Box, and giues sweetest sent. But of the fruit, the greatest graines and the weightiest, be most esteemed; such bite at the tongues end, and be hote in the mouth. Howbeit, this is adulterated with the seed of * Hypericum, that comes from the citie Petra. But the deceit is soone detected and found, for that seed is not so big, so massie and full, nor so long as the true graine of Baulme: besides, it hath but a dull sauer or none at all, and in tast resembles pepper. The liquor is knowne to be right or good, if it be oileous and fat, thin, and sheere, somewhat inclining to red, and, if in rubbing betweene your fingers, it renders a pleasant sauer. The white Baulme may be raunged in a second place of goodnesse: the greene and the thicke is not so good as it: but the blacke is worst. For Baulme as well as Oile, will be stale and worse for the age, if it be kept too long. This is moreover obserued, that in euery incision, that which flowed forth before the seed is ripe, is most precious. Ouer and besides, this Baulme may be sophisticated with the owne seed: and hardly can this couenage be found out, but that it hath a bitterer tast than that which is naturall. For the good Baulme should be pleasant and delicat in the mouth, not soure nor tart at all: only in smell it should haue a harsh verdeur. Corrupted it may be otherwise, with Oile of Roses, of Cyperus, of Lentiske, or Masticke, of Ben, of Terebinth, and Myrtles, also with Rosin, Galbanum, and Cyprian waxe, as occasion serues, and according as men list to sophisticat it. But the greatest knauerie of all, is to mingle gum among it: for being so handled, it will sticke and cleaue to the palme or inside of a mans hand, nay, it will sinke in water to the bottome, which are two chiefe properties of the right Baulme. For the very pure and perfect Baulme ought to cleaue too: but when it hath gum mingled among, stick it will likewise, but it will gather soon a brittle rouse or crust vpon it, which quickly cracks and breaks. Also this sophistication is found out by the tast. But in case there be any trumperie of Wax or Rosin, the fire wil soone bewray it; for when it burnes, it will yeeld a more muddie and blacke flame. As for the sophistication made with honie, it may soon be knowne: for presently the flies will take it, and gather thicke about it. Ouer and besides, put a drop of pure Baulme into warme water, it will settle to the bottom of the vessell, and congeale: but contrariwise, the counterfeit Baulme, will flote and swim about like oile. Again, if it haue Galbanum in it, yee shall see a white streak or circle round about it. To conclude, would you know in a word the right Baulme indeed? It will turne milke, and cruddle it: and it will not stain a cloth. In summe, there is no merchandise and commodity in the world, wherein there is practised more fraud and deceit, than in the trafficke of Baulme. For a Sextare or wine quart of Baulme will cost a thousand Roman deniers by retails, which was bought for three hundred and no more at the hands

of the factors vnder the Emperour, who sold it first. Whereby a man may see how gainfull it is to increase this liquor by sophistications. As for the Baulme wood *Xylobalsamum*, the price of it is six deniers a pound.

Now it remaines to speake of *Storax* [*Calamita*] comming out of that part of Syria, which about Phoenice, confronts and borders next to Iurie: and namely, about Gabala, Marathus and the mount Casius in Seleucia. The tree that yeeldeth this gum or liquor, is also named *Styrax*, like vnto a Quince tree. It hath first a rawish austere tast, which afterwards turnes to be more sweet and pleasant. There is found within a resemblance of canes and reeds, full of this iuice. Howbeit, about the rising of the Dog star there be certain winged wormes settle vpon the said reeds, creepe in and eat away the marrow (as it were) which lay within: so as a man shall find nought left behind but a mouldy dust or rotten powder, good for nothing. Next to this *Storax* of Syria, great account is made of that which commeth out of Pisidia, from Sidon, Cypres, and Cilicia: but least reckoning is made of that which Candie sendeth vs. That which is brought from the mount Amanus in Syria, is good for the Physicians, but better for the perfumers and confectioners. From what nation soeuer it comes, the best *Storax* is that which is red, somewhat glutinous besides by reason of the fattines. The worst is that which hath no consistence and tenacitie, but crumbles like bran, and is so mouldie that it is ouergrowne with a white hoarie mosse. The pedlers and such like perie merchants can skill how to sophisticate this drug also, with the rosin of cedar and gum: otherwhiles also with honic, or bitter almonds. But all these deceits are known by the tast. The price of the best is 19 deniers a pound. There is a *Storax* besides which Pamphylia doth yeeld, but drier it is, and nothing so full of moisture.

Moreouer, we haue from Syria out of the same mountain Amanus, another kind of gum called *Galbanum*, issuing out of an hearbe like Fennell-geant, which some call by the name of the said *Rosin*, others *Stagonitis*. The best *Galbanum*, and which is most set by, is gristly and cleare withall, resembling *Hammoniacum*, without any spils of wood in it. For in that wise the hucksters vse to deceiue chapmen by mingling beanes with it, or the gum *Sagapenum*. The right *Galbanum*, if you burn it, chafeth away Serpents with the strong perfume or smoke thereof. It is sold for five deniers the pound: and is vsed only in Physicke for medicines.

CHAP. XXVI.

¶ Of *Panaces*, *Spondylium*, and *Malobathrum*.

The same perfumers seeke also into the same Syria for *Panaces* growing there, and yet it is to be found also about Psophis, a citie in Arcadia; and the fountaines from whence floweth the riuer Erymanthus: yea, and in Affricke besides, and Macedonie. This *Panax* is an hearbe with a tall stalke and round tuft in the head like Fennell, and yet it is a plant by it selfe, growing to the height of five cubits. At the first it putteth out foure leaues, and afterwards six. They be very large and round withall, lying vpon the ground: but toward the top they resemble the leaues of an Olive: it beareth seed in the head hanging within certaine round tufts, as doth the *Ferula*. Out of the stalk of this hearbe there there is drawne a liquor by way of incision, made in haruest time: and likewise out of the root in Autumne, or the fall of the leaf. And this is called *Opopanax*. The best lookes white when it is gathered and congealed. The next in worth and weight, is that which is yellow. As for the blacke it is of no account. The better *Opopanax* costeth not about two Asses a pound.

Another hearbe there is of this Fennell kind, namely *Spondylium*, somewhat different from the former, but in leaues only; because they be lesse than those of *Panax*, and diuided after the manner of the Plane leaues. This *Spondylium* groweth no where but in cold and shadowie places. It carrieth a fruit or graine called also *Spondylium*, which resembleth the forme of Sil or Siler montanum, and serueth for no vse but Physick.

We are beholden moreouer to Syria for *Malobathrum*. This is a tree that beares leaues rolled vp round together, and seeming to the eie withered. Out of which there is drawne and pressed an Oile for perfumers to vse. Egypt is more fruitfull of this hearbe than Syria. And yet there comes a better kind thereof from India than both those countries. It is said, that it grows there in meeres and standing waters swimming aloft, after the manner of Fen-lentils or Duckes meat, more odoriferous than Saffron: enclining to a blacke colour: rough in handling, & in tast

A salt or brackish. The white is not so well esteemed. It wil soon be mouldie when it is stale. The rellish thereof ought to resemble *Nardus* at the tongues end. The perfume or smell that **Malobathrum* or the leafe yeeldeth when it is boiled in wine, passeth all others. It is strange and monstrous, which is observed in the price: for it hath risen from one denier to 300 a pound, whereas the Oile it selfe doth cost 60.

*Folium

CHAP. XXVII.

¶ Of Oile Olive, made of greene Olives, likewise of Grape Veriuce.

For the mixture and composition of ointments, the Oile of vnripe Olives and Veriuce is very good: and verily, made it is, in two kinds, & after two sorts, to wit, of the Olive, and the Vine. Of the Olives, if yee would haue good, they ought to be pressed whiles they be yet white; for if they turn colour once and be blackish, the worse is the Oyle or Veriuce that cometh thereof. And such kind of Olives be called *Drupe*, namely, before they be fully ripe and good to eat, and yet haue lost their colour. And herein is the difference, for that the oyle of this later sort is green, the other is white. Now as for grape Veriuce, it should be made of the Vine *Psythia*, or *Amminea*, and before the canicular daies, when as the grapes bee but new knit, and no bigger than the Cich-peale. The grapes (I say) must be gathered for this purpose, at the beginning before they change colour, & the iuice thereof ought then to be taken. Then should the Veriuce that comes from it, be sunned: and heed must be taken in any case, that no dewes by night do catch it, and therefore it would stand in couert. Now when this iuice or veriuce is gathered, it is put vp in earthen pots: and otherwhiles kept also in vessels of copper. The best grape veriuce, is red, sharp, and soure in taste, dry withall and scryptick. A pound or a pintre of such veriuce is worth six deniers. It may be made in another sort: namely, by punning and stamping vnripe grapes in morters: drying it afterwards in the Sunne, and so made vp into certain rolls or trochisks.

CHAP. XXVIII.

¶ Of *Bryon* and *Oenanthe*: of the tree *Elate*, and *Cinnamon Caryopon*.

The mosse of the white Poplar or Asp, which is reputed as the grape thereof, is vsed likewise in these odoriferous and sweet compositions. The best grows about *Cnidos* or *Caria*, in thirsty, dry, and rough places. A second sort is that which is found vpon the Cedar of *Lycia*. To this pertaineth *Oenanthe*, which is no more but the grapes of the wild wine called *Labrusca*. Gathered it is when it floureth, that is to say, when it smels best. It is dried in the shade vpon a linnen sheet lying vnder it, and then put vp into little barrels. The chiefe commeth from *Parapotamia*: the second from *Antiochia* and *Laodicea* in Syria: and a third sort from the mountaines of Media: and this is best for medicine. Some prefer before all these, that which groweth in the Island *Cyprus*. As for that which is made in Affricke, it is meet for Physitions onely, and is called *Massaris*. Now, the better euer is that which they gather from the white wild vine, than from the black. Moreover, there is another tree which serues for perfumes: some call it *Elate*, and we *Abies* [i.e. the Fir] others *Palma* or the *Date*, and some againe *Spathe*. That which grows about the sands of Affricke, where *Iupiter Hammons* temple standeth, is highly commended about the rest: and after it, that in Egypt. Next thereto is the Syrian. This tree is odoriferous when it grows in dry places only: it hath in it a certaine fat liquor or Rosin, and entreteth into compositions of sweet ointments, for to correct and mitigate the other oile. In Syria there is a drug which they call *Cinnamum Caryopon*. A iuice or oyle this is, pressed out of a certain nut. This *Cinnamon* differeth much in forme from the stickes of true *Cinnamon* indeed about specified: although in smell it commeth neare vnto it. A pound thereof is worth to be bought and sold 40 Asses, [i.e. 2 *shil. 6. d.*]

THE THIRTEENTH BOOK OF
THE HISTORIE OF NATVRE,
WRITTEN BY C. PLINIUS
SECVNDVS.

The Proeme.

THus far forth the woods and Forrests are of estimation, in regard of the pleasure they doe vnto vs for perfumes and sweet odors: and in truth, if we consider duly these aromaticall plants, admirable they be euerie one in their kinde, euen as they be weighed apart by themselves alone. But such is the riot and superfluitie of man, that being not content with that perfection of Nature shining in those plants and trees aboue rehearsed, he hath not ceased to mingle and compound them, and so of them all together for to make one confused smell: and thus were our sweet ointments and precious perfumes deuised, whereof we purpose to write in this booke next ensuing.

CHAP. I.

¶ Of Ointments, Perfumes, and their compositions: and when they came into knowledge first at Rome.

AS touching the inuention of Ointments, it is not well knowne who was the first that deuised them. Certaine it is, that during the raigne of the Troianes, and whilest Ilium stood, men knew not what they meant: nay, they vsed not so much as Incense in Sacrifice and diuine seruice. The fume and smoke of the Cedar and the Citron trees onely, the old Troianes were acquainted with when they offered sacrifice: their fuming and warming steame (more truly I may so terme it, than any odoriferous perfume) they vsed: which they might easily come by, since they were plants growing among them, and so familiar; notwithstanding they had found out the iuice of Roses, wherewith yet they would not correct the foresaid strong fumes in those daies; for that also was knowne to be a commendable qualitie of Oile Rosate. But the truth is, The Persians and none but they ought to be reputed the inuentors of precious perfumes and odoriferous ointments. For they to palliate and hide the ranke and stinking breath which commeth by their surfet and excesse of meats and drinckes, are forced to helpe themselves by some artificiall meanes, and therefore goe euermore all to be perfumed and greased with sweet ointments. And verily, so farre as euer I could finde by reading histories; the first prince that set such store by costly perfumes, was King *Darius*, among whose coffers (after that *Alexander the Great* had defeated him and woon his campe) there was found with other roiall furniture of his, a fine casket full of perfumes and costly ointments. But afterwards they grew into so good credit euen among vs, that they were admitted into the ranke of the principal pleasures, the most commendable delights, and the honestest comforts of this life. And more than that, men proceeded so far, as therewith to honour the dead: as if by right that duty belonged to them. And therefore it shall not be amisse to discourse of this theame more at large. Wherein I must aduertise the Reader by the way, that for the present I will but only name those ingredients that go into the composition of these ointments: such I mean as came not from herbs and trees, shrubs & plants; referuing the treatise of their natures, vertues, and properties, vnto their due place.

First

A First and formost therefore, all perfumes took their names either of the country where they were compounded, or of the liquors that went to their making, or of the plants that yeelded the simples and the drugs: or els of the causes and occasions proper and peculiar vnto them. And here it would be noted also principally, that the same ointments were not alwaies in like credit and estimation: but one robbed another of their honor and worth: in so much, as many times vpon sundry occasions, that which was lately in request and price, anon gaue place to a new and later inuention. At the first in antient time, the best ointments were thought to come from Delos; but afterwards, those that were brought out of Ægypt: no talke then but of Mendesium, compounded at Mendes, a city there. And this varietie and alteration was not occasioned alwaies by the diuersity of composition and mixture, but otherwhiles by reason of good or bad drugs: for ye should haue the same kind of liquors and oiles better in this country for one purpose, and in that for another: yea, and that which in some place was right and true, the same did degenerat and grow to a ballard nature, if you changed once the region: for a long time, the oile or ointment of Iris or the Floure-de-luce root made at Corinth, was in much request, and highly praised: but afterwards that of Cizicum won the name and credit, for the artificiall composition thereof. Semblably, the oile of Roses that came from Phaselus, was greatly called for: but in processe of time, Naples, Capua, and Præneste, stole that honor and glory from thence in that behalfe. The ointment of Saffron, confected at Soli in Cilicia, imported for a good while and carried the praise alone: but soone after, that of Rhodes was euery mans money. The oile drawne out of the floures of the wild vine in Cyprus, bare the name once; but afterwards that of Ægypt was preferred before it: & in the end the Adramyttians gained the credite and commendation from both places, for the perfect and absolute confection thereof. The ointment made of Marjoram, gaue credit for a certain time to the Isle Cos: but not long after, their name was greater for another made of Quinces. As for the oile Cyprinum, which came of Cyprus, the best was thought to be made in Cyprus: but afterwards there was a better supposed to be in Ægypt: where the ointments Metopium and Mendesium all of a sudden were better accepted than all the rest. It was not long first, but that Phoenice put Ægypt by that credit for those two singular compositions, & left the Ægyptians the name alone for the foresaid oile Cyprinum. The Athenians were renowned for their antient Panathenacum, & euer held their own. There was in old time a notable composition named Pardalium, made in Tharsus: but now the mixture & making thereof is quite lost. The ointment likewise Narcissimum, where the floure of the Daffodil was the Basis, is now forgotten, and no more made of it. The manner of compounding all these ointments, was twofold, to wit, either of the iuice & liquor, or els of the very substance & body of the simples. The former sort resemble rather the nature of oiles: but the later of ointments. And these the Greeks call either Stymmata, which yeeld the consistence & thicknes to ointments; or Hedy-smata, which serue to aromatize and giue a compleat perfection to them. There is a third thing between these, requisite also to the full making of these sweet ointments, namely, the colour: although many take no regard at all of it. And for this purpose, the perfumers put into their compositions Cinnabaris [i. Vermillion or Sanguis Draconis] and Orcanet. The salt moreover that is strewed among, serueth to repress and correct the nature of the oile that vniteth all the ingredients besides. But those that haue the root of Orcanet in them, need no salt at all to be put in besides. As for Rosin and Gum, they are mingled with the rest to incorporat the drugs and spices, and to keep in the sweet odour thereof, which otherwise would euaporate and soon be lost. We are to presume by all likelihood, that the first composition of ointments and soonest made, was of the odoriferous mosse Bryon, and the oile of Ben onely: whereof we haue written in the former book. Then came in place a more compound ointment called Mendesium, and that receiued Rosin also to the foresaid oile of Ben: And more than that, another besides named Metopium. Now is this Metopium an oile compounded, which the Ægyptians do presse out first of bitter Almonds, but they added thereto for to incorporate the better, grape Veriuiice: and the ingredients besides, were Cardamanum, Squinanth, sweet Calamus, Hony, Wine, Myrrhe, the graines or seeds of Baulme, Galbanum, Rosine, and Terpentine. One of the meaneest and basest ointments now adaies, and therefore thought to be as antient as any other, is that which consists of the oile of Myrtles, sweet Calamus, Cypressse, and Cypros, [Squinanth] Lentiske, and the rind of the Pomegranat. But I would thinke verily, that Ointments came to be so diuulged and common euery where abroad, by meanes of Roses most

of all: considering, that nothing grows more ripe in all places. Which was the cause, that the simple mixture of oile Rosate, without any sophistication besides, continued for a long time, hauing the addition of grape Verjuice, the floure of Roses, the Saffron, Cinnabaris, or Sang- Dragon, Calamus, Hony, Squinanth, the floure of salt called Sperma-ceti, or els in lieu thereof the root of Orcanet, & Wine. The oile or ointment of Saffron was after the same sort made, by putting thereto Cinnabaris, Orcanet, & wine. Semblably is to be said of the oile of the sweet lesse Maioran, wherein was mixed grape verjuice and sweet Calamus. This composition was singularly wel made in Cyprus & at Mitylene, where great store of sweet *Majoran grows. There be other oiles likewise which are not of so good reckoning, namely, of Myrtles, & Bayes, which receiue a mixture with the addition of Majoran, Lillies, Feni-greek, Myrrhe, Casia, Spikenard, Squinanth, & Cinnamon. Moreouer, of great quinces & the lesse called Mala Struthea, is made the oile Melinum, whereof we wil speake hereafter: which the perfumers vse in their ointments, by putting thereto grape-verjuice, the oile Cyprinum, the oile Sesamine, Baulme, Squinanth, Casia, & Sothernwood. As touching the oile of *Lillies, which is the most subtil and thinnest of all other, it is made of Lillies, Ben, sweet Calamus, Hony, Cinnamon, Saffron, Myrrhe, & Aspalathus. Also the foresaid oile Cyprinum is made of the floures of Cypros, of Veriuiice, Cardamonum, Calamus, Aspalathus, & Sothernwood. Some there be that put moreouer vnto this oile, Myrrhe & Panace. The Sidonians are excellent at the making of this composition: & after them the Egyptians, so that they put not in Sesamium oile: for it wil last & keep good full four yerres: & if it begin to lose the smel, it is quickned and refreshed again with Cinnamon. Now as touching the ointment of *Feni-greek, it is made of fresh oile, Cyperus, Calamus, Melilot, Feni-greeke, Hony, oile of Quinces, the greater & the lesse sweet Marioram. This was of highest reputation in the daies of *Menander* the comical poet. But long after there succeeded into the same place of credit, the ointment Megalium: so called for the great glory that it caried: & this was compounded of the oile of Ben, of Baulm liquor, sweet Calamus, Squinanth, Balm-wood, Casia, & Rosin. In the making hereof, this property it had by it selfe, that all the while it was a compounding and seething, it should euer and anon be vented, & shifted out of one vessell into another, vntill the smel of it were gone. Which neuerthelesse it would recouer againe after it was once cold. Moreouer, some liquors there be of themselves, that without any other mixtures may serue and go for noble sweet ointments. Among which, that of Malabathrum is the chief: next to it the Flour-de-luce of Sclauonia, and the great sweet Marioram of Cyzicum. Howbeit, the Herbarists loue to be putting in some few spices besides, as well in the one as the other: but some make choise of one thing, some of another to intermingle withall. They that take delight to haue their mixtures most compound, adde vnto either of those abouenamed, Hony, the floure of salt, grape verjuice, the leaues of Agnus Castus, and Panace, & generally all that be strange and forrain, to make their compositions seeme more wonderful. To the oile or ointment of Cinnamon, there goes the oile of Ben, Balm-wood, sweet Calamus, Squinanth, the *fruit or seedes of Balsamanum, Myrrh, & Hony Aromaticall. This is of all other the thickest ointment in substance. The price of this, is from 35 deniers to 300 the pound. As for the ointment Nardinum or Foliatum, it is composed of the oile of green Oliues or grape verjuice, of the oile of Ben, of Squinanth, Costus, Spikenard, Amomum, Myrrhe, and Baulme. Howbeit, this point would not be forgotten in the making of this composition, that it is a very easie matter to sophisticate it, by reason, that there be no fewer than nine herbs or simples which we haue declared, that come neere to the Indian Spikenard, and may be taken for it. Finally, to quicken and fortifie the sent of all these ointments, there must no spare be made of Costus and Amomum, which of all other drugs pierce into the nostrils, and cast a strong smel. To make them thicker and more pleasant, there would be good store of Myrrhe put in: but to haue them better for the vse of Physicke, and more medicinable, it is good to season them wel with Saffron. As for Amomum, of it selfe alone it causeth all ointments where it comes to be most quicke and penetratiue: in so much as it causeth head-ache. Some for to spare cost thinke it sufficient to aromatize onely these ointments with those drugs that are so deare and precious, either by strewing the powder, or sprinckling their liquors amongst, whereas the rest of the ingredients be boiled: but such compositions be nothing so effectuell, as when all be sodden and fermented together. As for Myrrhe it selfe, it maketh alone a precious ointment without any other oile. I meane that onely of the liquor Staete: for otherwise it is exceeding bitter and vnpleasant. If it bee mingled with

* *Sansuchus*.* *Sesamum*.* *Telinum*.* *xyobalsamum*
* *Carpobalsamum*

with the oile Cyprinum, it looketh greene; if with the oile of Lillies, it will be fatty and vnctuous; if with Mendesium, blacke; with oile Roset, white; with that of Myrrh, pale. Lowhat were the inuentions in old time of aromaticall and odoriferous ointments: loe what were the deuises afterwards of the shopkeepers and perfumers, to picke pence out of our purses, and to rob vs. It remains now to speak of the paragon indeed of all these pleasures and delights: of that I say wherein consists the very height and chiefe point of this argument in hand.

CHAP. II.

¶ *Of the Ointment called Roiall: of drie Perfumes, Powders, and Pomanders: and how they be kept.*

THE Roiall Ointment therefore (which the Parthian kings vsed ordinarily, and of whome it took that name to be called Roiall) is tempered and composed in this manner: to wit, of Ben, Costus, Amomum, Cinamon, the Arbut or Comarus, Cadamonum, Spikenard, Marum, Myrrhe, Casia, Storax Calamita, Ladanum, Baulme liquor, sweet Calamus, Squinanth of Syria, the floure of the wild vine, Malabathrum, Sericharum, Cyperus, Aspalathus, Panace Saffron, Cypros, Marioram the greater, clarified, or purified Hony, and Wine. As for Italy (the lady and conquereesse of all other nations) there growes nothing in it good to make ointments, no nor nothing throughout all Europe, vnlesse it be the Flour-de-luce root, and the Celticke Spikenard: for wine, Roses, Myrrle leaues, and oile, are well known to be common for all countries.

As for those mixtures which be called Diapasmata, they consist of dry spices and drugs. Also the dregs or grounds of Ointments, they cal Magma. Moreouer, this is to be obserued in the mixture and composition of those Ointments, That the drugs which be put in last, are euer the strongest and most effectuell.

Now as touching the keeping of Ointments, they are best preserved in pots or vessels of Alabastre: and Odors are surest maintained and continue longest, being incorporate in oile: which the fatter that it is, serueth better for a continuance of their sent; as a man may see very well in the Oile of Almonds. And to say a truth, the older that an ointment is, and the longer fermented, the more vertue it hath for the age. The sun is an enemy vnto them, and therefore they must incorporate and vnite together in the shade, and be put vp in vessels of lead. The triall of them is taken with the back-part of the hand, for feare lest that the heat of the fleshic side within, should corrupt and marre them.

CHAP. III.

¶ *Of the Superfluitie in expence at Rome, about these Ointments: and at what time they were first vsed there.*

AT this day there is not in Rome any thing wherein men more exceed, than in these costly and precious ointments: and yet of all other, they are most superfluous and may be best spared. True it is, that much money is laid out vpon pearles and precious stones; but these are in the nature of a domaine and inheritance, and fall to the next heire in succession. Again, rich and costly apparell stand vs in a great deale of coine; howbeit they are dureable and last a long time: but Perfumes and ointments, are soone done and gone; they exhale and breath away quickly; they are momentanie, they serue but for the present, and die suddenly. The greatest matter in them, and their commendation is this, To cause a man (what business soeuer he hath otherwise) to cast his eie and looke after a gentlewoman as she passes by perfumed in the streets, and sendeth a smel from her as she goes. This is all the good they do and yet forsooth a pound of this ware must cost 400 deniers: so deare is the pleasure that passes from our selues & goes to another: for the party himselfe that carrieth the perfume about him, hath little or no delight at all in it: others they be that read the benefit and pleasure thereof. And yet among these odoriferous compositions, there is choise and difference betweene one and another. We finde in the writings of *M. Cicero*, that he made more account of those ointments that fauored of the earth, than those which smelled all strong of Saffron: as if he meant thereby, That in this excessive disorder and most corrupt enormitie of all others, a certaine moderation yet and sad delay would

would do well; and that a feuerity (if I may so say) in the vice it self, were better to be liked. But some take delight especially in thick and grosse ointments, and are not content to be perfumed yea and bathed all ouer, vnlesse they be besmeared, greased, and daubed also therewith. I haue my selfe seen some of them to annoint the very soles of their feet with these precious Baulms: and (by report) it was *M. Otho* that first taught the Emperor *Nero* this wanton delicacie. But I would gladly know, and some good body tell me, I pray, how he could feele the smell thereof, and what delight or contentment it might yeeld from that part of the body? I haue heard say besides, by some of the inward familiars and speciall fauorits of this prince, That he commanded the very walls of his baines and stoues to be perfumed with precious ointments: and that *C. Caligula* the Emperor, caused the very vessels and seats wherein he vsed to sit when he bathed or sweet in his hot-house, to be in that manner annointed. And because this might not seeme to be a speciall pleasure fit for an Emperor onely, I knew one of *Neroes* seruants afterwards, who vsed so to do as well as his lord and master. But I muse and maruell at nothing so much, as that this wanton delight should find the way and enter so far as into the mids of the camp. For wot ye what? I assure you the very standards and ensignes, the *Ægles* (I say) and *Minotaures*, so dusty as they be otherwise, so foule and ill-fauored, as being kept so long, and standing by vnoccupied, are wont forsooth to be annointed and perfumed vpon high and festiuall daies. And, so god helpe me, I would I knew who it was that first brought vp this fashion and needlesse superfluitie: Certes, I would not defraud him of his due honor: I would (I say) recommend his name vnto all posterity. But thus it is (no doubt) and it cannot otherwise be; Our *Ægles* and standers (bribed, hired, and corrupted with this so good a reward) haue therefore in recompense conquered the whole world. Vnder such colors and pretences (indeed) we deceiue our selues, and cloak the vice and ryot of our times: and thus hauing so good a reason as this, to induce and draw vs on, we may not sticke to haue precious baulms vpon our heads, so it be vnder our fallats and mourrons.

To say for certainty and precisely, when this enormity entered first into Rome and began there to raigne, I am not able. Sure it is, as appeareth vpon record, That after the subduing of *K. Antiochus* and the conquest of Asia, which was about the 565 years from the foundation of Rome, *P. Licinius Crassus*, and *L. Iulius Caesar* the Censors, published an edict, prohibiting and forbidding to sell any forreine or strange ointments within Rome: for so they termed these sweet mixtures and compositions. But (beleeue me) now adaies, some there be so wanton and delicat, that there is no wine or other drinke good with them, nor will go downe their throat, vnlesse it be spiced and aromatized with these baulms: and so little passe they for the bitterness of these odours and fumes, that they are well content to waite and spend a deale thereof, without and within, behind and before, aboue and beneath, to enioy the perfume thereof in all parts of the body. Well knowne it is, that *L. Plotius*, brother to *L. Plancus*, a man of great credit and authority, as hauing bin twice Consul, and Censor besides, being outlawed and proclaimed a banished person by the decree of the * Triumvirs, was discovered within a certaine caue at *Salernum*, where he lay close hidden and sure enough otherwise, by the very smell onely of a precious ointment that he had about him: and so by that meanes (besides the shame and disgrace that he receiued, thus to detect himselfe and be found of his enemies) the rigor of the act and arrest that passed against him, was executed and performed vpon his body. And who would euer pittie such persons, & not iudge them worthy to come to so bad an end? but to conclude all this discourse, there is not a country in the world that yeelds such plenty and varietie of drugges fit for these compositions, as *Egypt*: and next to it, *Campaine* in *Italy* may carry the name, for the store of roses there growing.

CHAP. IIII.

Of Dates, and Date trees: their nature and seuerall kinds.

The land of *Iury* is as much renowned, or rather more, for the abundance of Palms or Date trees which it affoordeth: the discourse whereof we will now enter into. True it is, and it cannot be denied verily, that there be of them found in Europe, and namely, euery where in *Italy*; but such, be all of them barren. Also in the maritime parts and sea-coasts of *Spaine*, ye shall meet with *Palmes* that beare Dates, but they are but tart and vnpleasant, and indeed neuer come

A come to their maturity and ripenesse. Those of *Africk*, I must needs say, bring forth a sweet and pleasant fruit; but it will not last, and soon is gone: whereas contrariwise, in the East parts, the people make wine thereof; and in some countries they vse it for bread, yea the very bruit and four-footed beasts do ordinarily feed of Dates: and therefore we hold and conclude, that Dates may be truly called, forreine fruits; and their Trees, meete strangers in this part of the world. For in *Italy* a man shall not find so much as one Palm tree that comes vp of it selfe, without it be set or planted by mans hand: neither in any other region whatsoeuer, vnlesse it lie vnder some hot climat; but to beare fruit ye shall neuer know it in any country, if the same be not extreme ardent and scorching. Date trees loue a light and sandy ground, and specially (for the most part) if it stand much vpon a veine of Nitre besides. And yet contented will they be to grow by some riuer side, where they may haue, as it were, one foot in the water, and be euer drinking all the yere long, especially in a drie season. Some thinke, that dung is as contrary and hurtfull vnto them, as to some kind of Citron trees in *Affrya*, vnlesse it be mingled & tempered with water, or the trees planted neere to some running riuer. Moreouer, many kinds there be of Date trees: and the first are smal, and exceed not the bignesse of shrubs: these in some parts are barren, and in others fruitful: they shute out little short branches round about, but very full of leaues, the which in most places serue in stead of parget & rough-cast, to defend wals of houses against the weather and drifts of rain. Howbeit a second sort there be that are much taller, and whole Forrests stand only vpon those trees: they put forth leaues sharp pointed, and they grow round about disposed one close vnto another in manner of comb-teeth: and these must of necessitie be taken for wild, and no better and they loue here and there as it falleth out, to be intermingled among those of the tamer kind, as if they tooke I wot not what pleasure in their company. The rest growing in the East parts, be streight, round, and tall, enuironed about the body with circles or houps made of the very barke it selfe, and they are of the thickenesse of a mans thumbe, set in order one aboue another like steps & greeces neere together, in such sort that the people of the East may easily climbe them, by the means of the said barke, which serueth not onely for a vestiment to the tree, but also for staires to him that would mount vp, so that it is a wonder to see how nimbly a man will run vp to the top. These Date trees beare all their branches toward the head; and their fruit comes not forth among the leaues as in other trees, but hangeth to certain branches and twigs of the owne between the boughes like clusters of grapes: in so much as it resembleth partly the nature of a grape, and partly of an apple. The leaues made in forme of a knife blade sharp toward the point, slit as it were and clouen in the edge along both sides, make shew at the first of certain faire and beautifull gems: and now they serue in stead of cords, and to bind vines together: also being diuided and sliced into flakes, they are good to plait for hats and light bongraces for the head, against the heat of the Sunne. Moreouer, all learned men who are deeply studied in the secrets of Nature, be of opinion & do teach vs, That in all trees and plants, nay rather in all things that proceed out of the earth, euen in the very herbs, there are both sexes. Let it suffice therefore to haue spoken thus much once for all in this place. But there is no tree whatsoeuer, in which this distinction of male and female appeareth more, than in *Palme* trees: for the male putteth forth his bloome in the branch, but the female sheweth no floure at all, but sprouteth and shooteth out buds in manner of a thorne: howbeit both in the one and the other, the pulp or flesh of the Date commeth first, and after it the woody stone within, which stands in stead of the grain and seed of the Date. And this appeares euidently by a good token, for that in the same branch there be found little yong Dates without any such stone at all. Now is the said stone or kernell of the Date, in forme long, not so round and turned like a ball as that of the *Oliue*. Besides, along the back it hath a cut or deep slit chamfered in (as it were) between two pillowes, but in the mids of the belly on the other side, for the most part it hath a round specke, formed like a nauill, whereat the root or chit beginneth first to put forth. Moreouer, for the better planting of Dates, they set two together of their stones in a rank with the bellies downward to the earth, and as many ouer their heads: for if one alone should come vp, it were not able to stand of it selfe, the root and young plant would be so feeble, but foure together (so ioine, clasp, and grow one to another, that they do well enough and are sufficient to beare themselves vpright: the kernel or woody substance within the Date, is diuided from the fleshy pulp and meat thereof, by many white pellicles or thin skins between: neither lieth it close thereto; but hollow a good distance from it, saue that in the head it is fastened thereunto by a thred or

L I

string:

fring: and yet there be other pellicles that cleave fast and sticke to the substance of the Date within. The Date is a yeare in ripening. Howbeit in certaine places, as namely in Cyprus, the meat or fleshie pulp thereof is sweet and pleasant in taste, although it be not come to the full ripenesse: [where also the leafe of the tree is broader, and the fruit rounder than the rest:] many then you must take heed not to eat and swallow down the very bodily substance of it, but spit it forth after you haue wel chewed & sucked out the iuice therof. Also they say, that in Arabia the dates haue but a faint & weak sweetnes with them: & yet K. *Inba* makes greatest account of those which the region of the Scenites in Arabia doth yeeld, where they be called *Dabula*: and he commends them for their delicate and pleasant tast, before all others. Moreouer, it is constantly affirmed, That the females be naturally barren, and will not beare fruit without the company of the males among them to make them for to conceiue: yet grow they wil neuertheless and come vp of themselves, yea and become tall woods: and verily a man shall see many of the females stand about one male, bending and leaning in the head full kindly toward him, yeelding their branches that way as if they courted him for to win his loue. But contrariwise, he a grim fir and a coy, carries his head aloft, bears his bristled & rough arms vpright on high: and yet what with his very lookes, what with his breathing and exhalations vpon them, or else with a certain dust that passes from him, he doth the part of an husband, in so much as all the females about him, conceiue and are fruitfull with his only presence. It is said moreouer, that if this male tree be cut downe, his wiues wil afterwards become barren and beare no more Dates, as if they were widows. Finally, so euident is the copulation of these sexes in the Date trees, & knowne to be so effectually, that men haue deuised also to make the females fruitfull, by casting vpon them the blooms and down that the male bears, yea, and otherwhiles by strewing the powder which he yeelds vpon them. Besides the maner abouesaid of setting date stones for increase, the trees may be replanted of the very truncheons of two cubits long, sluied and diuided from the very brain (as it were) of the green tree in the top, and so couched and interred, leauing only the head without the ground. Moreouer, Date trees wil take again and liue, if either their slips be pluckt from the root, or their tendrils & small branches be set in the earth. As for the Assyrians, they make no more adoe, but if it be a moist soile, plash the very tree it selfe whole as it stands, and draw it along and so trench it within the ground, and thus it wil take root and propagate: but such wil neuer proue faire trees, but skrubbs only. And therefore they deuise certain Seminaries or Nource gardens of them, and no sooner be they of one yeares growth, but they transplant them; and so againe a second time when they be two yeares old: for these trees loue alone to be removed from one place to another. But whereas in other countries this transplantation is practised in the spring, the Assyrians attend the very mids and heat of Summer, and in the beginning of the Dog-daies vse to replant them. Moreouer, in that countrie they neither cut off the heads, ne yet shred the branches of the yong plants with their hooks and bills; but rather bind vp their boughes, that they may shoot vp in height the better. Howbeit, when they are strong, they cut their branches, for to make the bodies burnish and waxe thicker, but yet in the lopping they leaue stumps of boughes halfe a foot long, to the very tree: which if they were cut off, in other places, would be the death of the mother stocke. And forasmuch as Date trees delight in a salt and nitrous soile (according as hath bin before said) the Assyrians therefore when they meet not with a ground of that nature, strew salt, not close about the roots, but somewhat farther off. In Syria and Egypt, there be some Date trees that diuide themselves and are forked in twaine, rising vp in two trunks or bodies. In Crete, they haue three, and some also foue. The nature of the Palme or Date tree, is to beare ordinarily when they be three yeares old: howbeit in Cyprus, Syria, and Egypt, it is foure yeares first ere some bring fruit; yea and five yeares before others begin: and such neuer exceed a mans heighth, neither haue they any stone or woody kernel within the Date so long as they be young and tender: during which time they haue a pretty name for them, and call them Gelded Dates: and many kindes there be of these trees. As for those that be barren and fruitlesse, all Assyria and Persia throughout, vse them for timber to make quarters and pannels for seeling, wainescot, and their fine ioynded workes. There be also of Date trees coppey woods, which they vse to fell and cut at certaine times: and euermore they put forth a yong spring from the old root and stock. These haue in the very head and top, a certain pleasant and sweet marow, which they terme, The braine: and therefore those that loue to eat it, wil cut and take it away, & yet the tree wil liue neuertheless: a thing

A A thing that ye shall not lightly see in any others of that kinde. As for those Date trees which haue broader leaues, & the same soft and pliable, very good to make windings to bind vines and such like, they be named by the Greeks *Chamæropes*: great abundance there is of them in Crete, but more in Sicily. The wood of Date trees yeelds coles, that in the burning will keep fire long: howbeit a dead flame it is that they make, and nothing quicke. As touching those that be fruitfull, some beare Dates with a short itoe or kernell within; others with a longer: these are more soft, those be harder. Some carry a kernell of a bony substance, like the Moon Croissant, which many are wont to polish with some tooth, and in a kind of religion are persuaded, that it is good against witchcraft, & is of vertue to procure womens loue. Some of these stones be clad and couered with many skins or pellicles, & others with fewer: ye shall haue in this Date, those tunicles thick & grosse, in that, thinner and more fine. In sum, if a man would search into them particularly, hee should find fifty sundry sorts of Dates fauone, with seuerall, strange, and barbarous names, and as many different wines made of them. But the principall and most excellent of all the rest, synamed *Koiall* Dates, for that they were reserved for the kings owne mouth of Persia, were knowne to grow nowhere els but in Babylon, and in one hortiard or park only of a Bagous (for so they vse to call their eunuchs or gelded persons, and such in times past reigned as K. ouer them;) and this park was euermore annexed to the crowne, and went with the royal Scepter, as a chiefe demaine of the Empire, and passed from one Prince to another by succession. But in the South-countries and meridionall parts of the world, the Dates synamed *Syagri* are highly commended aboue all others, and most esteemed: and next to them, those which be called *Margarides*, are in account and good request: these be short, white, and round, more like in form to berries and little buttons, than to mast-fruit and Dates indeed: whereupon they took their name of Pearls, which they do resemble. It is reported, that in the city Chora, there is one of these trees that bears Dates like to Pearles; as also another that carries the Dates *Syagri*. I my selfe verily haue heard strange things of this kind of tree, and namely in regard of the bird Phoenix, which is supposed to haue taken that name of this Date tree [called in Greeke *phœnix*] for it was assured to me, that the said bird died with that tree, and reuiued of it selfe as the tree sprung againe. Now at the very time that I wrote this History of Natures works, I saw the same tree with fruit vpon it: the Date that it bears is great, hard, rough in handling, and in tast resembling some harsh and wild fruit, far different from other kinds of Dates: in such sort, as I wondered not at the name of *Syagros*, so like it tasted to the flesh and venison of a wild Bore in the Forrest, that comes to our board. In a fourth rank of Dates for goodnesse, are to be ranged those which they call *Sandalides*, for the resemblance of slippers or pantofles which they vse in old time, named *Sandalio*. But in these daies they be as rare, as otherwise pleasant; so that within the bounds of *Æthiopia* (a wonderfull matter) there be not aboue fiew of them to be found. After the *Sandalides*, the Dates *Caryotæ* are in greatest request; for they be not only good to eat, but also a wine is made of their iuice, which they yeeld in great abundance: for all the people of the East make their speciall drink thereof. But true it is, that this kind of wine is hurtfull to the head, and therefore the Greeks gaue it that name. Now as these countries aboue said doe afford plenty of Date trees, and the same fruitfull enough, so Iury alone carries the name and the praise for goodnesse of Dates; and not all Iury neither, but the territory about *Teicho* especially: and yet I must needs say, that there be gathered very good Dates in the vales of Iury, which be named *Archelais*, *Phafelis*, & *Linias*. And these Dates of Iury, haue this special property aboue all others, to be full of a fat white liquor resembling milk, which hath a certaine taste of wine, and is exceeding sweet and pleasant withall like honey. The drier kind of these Dates be those that tooke name of one *Nicolas*, and were called *Nicolai*: passing faire and great they be aboue all others by far; for foure of them laid in a rank one at the end of another, will make a cubit in length. Other Dates there be, not so faire to the eie as these *Caryotæ*, but surely for pleasant tast they may be well their sisters, like as they be called thereupon *Adelphides*. And a third kind there be of the same *Caryotæ*, which they commonly call *Patecon*: ouer full they are of liquor, and so drunke (as a man would say) with their own iuice, that they burst euen as they hang vpon the tree their mother, yeelding their wine in that manner of their owne accord, as if they were troden with mens feet in a wine-presse; and thereupon they got that name. Another kind there is yet by it selfe, of those Dates that be drier than the rest, and they be very long and slender, yea, and otherwhiles not streight, but bending and crooked. As for those

CHAP. VIII.

¶ Of the cod or fruit called *Ceraunia Siliqua* [*i. Carob.*]

THere is a kind of coddie shrub which the Ionians call *Ceraunia*, not vnlike to the Egyptian Sycomore abouesaid, for the fruit thereof comes likewise forth of the stock, but yet is contained within a cod: and thereupon it is that some haue called it the Egyptian fig tree, but they are grossly deceiued: for it doth not so much as grow in Egypt, but in Syria and Ionia, also about Gnidos and Rhodes. The tree hath green leaues all the yeare long: it putteth forth white floures of a strong smell. From the root there spring shoots, and about the foot of the tree it bears many yong imps, which are such suckers of the sap, that they draw away all the goodnesse, and rob the parts aboue of their nourishment, whereby the head is yellow, and nothing fresh and green, but fadeth in the top. The fruit of the former yere is gathered about the rising of the Dog-star the yeare following: and then presently it brings forth new. Afterwards commeth a blossome, and the fruit thrieth and waxeth all Winter, vntill the occultation of Arcturus.

CHAP. IX.

¶ Of a tree in Egypt called *Persica*: of *Cucus*, and the Egyptian thorne *Acacia*.

THere is found in Egypt a certain kind of tree by it self called *Persica*, like to a peare tree, but that it is green all the yeare long, and sheds not the leaues: also it beareth fruit continually; for gather to day, and ye shall find new to morrow growing forth of the place. The fruit is ripe about the Canicular daies when the Etesian winds do blow. It resembleth a Peare, saue that it is longer, and inclosed with a shel or green husk like the Almond: but where the Almond hath an hard shell without as a nut, this is soft in manner of a peare or plum, containing the stone within: and yet it differs somewhat both in shortnesse and tendernesse. The fruit is very good meat: and although the exceeding sweetnesse thereof entice one to eat still and not giue ouer, yet no danger of surfeit ensueth thereupon. As touching the wood of this tree, it is durable, hard, strong, and black withall, in which respects it resembles the Lote-wood very much. They vsed in times past to make images and statues thereof, not so beautifull altogether, nor of so fine a grain as some others; but for the timber thereof, which continueth sure and lasteth long, as that of the tree which we called *Balanus*. Much whereof growes curbed and crooked, and therefore is good only for shipwrights to make keels. But contrariwise, the wood of *Cucus* is highly esteemed.

A tree this is not vnlike to the Date tree, in this regard especially, that the leaues be good to twist and plait for mats & such like: herein is the difference, for that it spreads into arms and great boughs. The fruit which it beareth is as much as a man may well hold in his hand, of colour reddish or deep shining yellow, and the taste very commendable; for it yeelds a iuice between foure and sweet, and therefore wholesome for the stomacke. The woody stone within is great, massie, and exceeding hard, whereof they vse to turne for curtain rings and saile pullies. In the belly of it there lieth a sweet kernell whiles it is fresh and new. But if it be once dried it passeth for hardnesse, inasmuch as no tooth can chew it, vnlesse it be steeped in some liquour many daies before. As for the wood and timber of the tree, it hath a most dainty, fine, and curled grain, in which regard the Persians set much store by it.

In the same country there growes a thorny plant which the inhabitants make great account of: and especially that which is in colour black, because it wil abide the water, & neuer rot nor putrifie in it, and therefore excellent good for the ribs & sides of ships. As for the white thorn of this kind it will soon corrupt and be rotten. But both the one and the other is full of prickes euen to the very leaues. The seed lies in certain cods or husks, wherewith curriers vse to dresse their leather in stead of galls. The floure this thorne beareth is beautifull, whereof folke make faire garlands and chaplets; profitable also besides and good for many medicines. Out of the barke of this tree there comes a gum likewise. But the chiefest commoditie and profit that it yeeldeth is this, Cut it down when you please, it wil be a big tree againe within three yeres. It groweth

A groweth plentifully about Thebes in Egypt, among Oakes, Oliues, & Peach trees, for the space of 300 stadia from Nilus; where the whole tract is all woods and forrests, and nathelless well watered with fountains and springs among.

CHAP. X.

¶ Of the Egyptian Plum tree, and other trees about Memphis.

IN those quarters groweth likewise the Egyptian Plum tree, not vnlike to the thorn of *Acacia* next before described: and this brings forth a fruit as big as a Medler, which neuer is ripe before mid-winter, when the daies be at shortest. The tree is alwaies greene, and sheds not the leaues all the yeare long. Within the fruit afore said there is a big stone; but the substance otherwise and body thereof is naturally so good, and so plenteous withall, that the inhabitants make their haruest of it. When they haue gathered it, they clesne it, stampe it, make it vp into balls and lumps, which they preferre and keepe. The country about Memphis in times past was all woody and full of forrests, wherein grew so mighty big trees, that 3 men were not able to fathom them about. But among the rest therewas one by it selfe most wonderfull, not for any strange fruit that it bare, nor yet for any singular vse and employment; but in regard of an accident obserued in it, and a special qualitie that it had. For the tree (forsooth) outwardly resembleth a thorn, but the leaues are made directly like feathers. Let a man shake the boughs neuer so little, shed they will and fall incontinently, but soon after there spring vp new in their steads.

CHAP. XI.

¶ Sundry sorts of Gum. Also of the Cane Papyrus.

THe best gum in all mens iudgement is that which comes of the Egyptian thorne *Acacia*, hauing veins within of checker work, or trailed like wormes, of colour greenish, & cleare withall, without any pieces of the bark intermingled among, and sticking to the teeth as a man cheweth it. A pound thereof is commonly sold at Rome for three deniers. The gumme that issueth from the bitter Almond trees and Cherry trees is not so good: but the worst of all is that which the Plum tree yeeldeth. There runneth likewise out of vines a certaine gum that is passing good for the bleache, scabs, and scalls in little children. And otherwhiles ye shall find some in Oliue trees, and that cureth the tooth-ache. Moreover, the Elme growing vpon *Corycus*, a mountain in Cilicia, and the Iuniper there, haue a gum, but good for nothing. As for that of the Elme it breeds gnats there. Moreover, of *Sarcocolla* [a tree so called] there distilleth a gum of that name, which Painters and Physitions both haue great vse of. Like it is to *Manna Thuris*, which is the powder of Incense: and therefore the white is better than the red. Sold it is at the same price that the other aboue named. And thus much concerning the trees growing vpon mountains and plains.

Now albeit we are not entred yet into the treatise of those plants and shrubs which grow either in marsh grounds or by riuers sides; yet before we depart out of Egypt we must not forget the plant Papyrus, but describe the nature thereof, considering, that all ciuilitie of this our life, the memoriall and immortalitie also of men after death, consists specially in paper which is made thereof. *M. Varro* writes, that the first inuention of making paper was deuised vpon the conquest of Egypt, atchieued by *Alexander the Great*, at what time as he founded the city *Alexandria* in Egypt, where such paper was first made. For before that time there was no vse at all (saith he) of paper, but men vsed to write in Date tree leaues first, and afterwards in the rines and barks of certain trees. Then in proceesse of time they began to register publique records in rolls and sheets of lead: and soon after priuate persons set downe their owne affaires in linnen books, or els in tables couered with wax. For we read in *Homer*, that before the war of *Troy* writing tables were vsed. And at the very time when he wrot, Egypt was not all continent & firm land, as now it is. For, as he saith, all the Papyrus whereof paper is made, grew in that branch or arm of Nilus, which answereth onely to the tract or territorie within the iurisdiction *Sebennitis*: but afterward that part also was laid to Egypt, by the shelles and banks made with the inundation of the said riuer. For, from the Island *Pharos*, which now ioyneth close vnto *Alexandria*,

dria by a bridge or narrow causey between, it was a day & nights falling with a good fore wind G at the poup, to the main land, as *Homer* hath reported. But afterwards, as *Karro* hath written, by occasion of a certaine enuious strife and emulation which arose betwene one of the *Ptolomees* K. of Egypt, and *Eumenes* K. of Pergamus, about the erecting of their great libraries; when *Ptolomeus* suppressed and kept in all the paper made in Egypt, there was parchment deuised by the said *Eumenes* to be wrought at Pergamus, of skins. And finally, the vse was commonly taken vp of both, to wit Paper and Parchment, which continues the perpetuall and euerslasting remembrance of men and their affaires. But to returne vnto our plant *Papyrus*, it growes in the marshes of Egypt, or els in the dead standing waters of Nilus, namely in certaine plasches and pits whereas the water did ouerflow, and remained still after the riuer was fallen and down againe: and namely such holes and ditches which are not aboue two cubits deep. The root is writhen H and crooked, of the thicknes of a mans arme; & the scape or stalk that riseth from it hath three sides with 3 corners trianglewise, not aboue 18 cubits in height, growing taper-wise, small and sharp in the top, where it beareth an head inclosed and round, in maner of a cabbage. Howbeit no seed it carrieth within, neither serues the floure for any purpose but onely for chaplets to adorne the images of the gods. The inhabitants of Egypt do vse the root in stead of wood, not for fuel only, but also to make thereof sundry vessels and utensils in an house. The very bodie and pole of the Papyr it selfe serueth very well to twist and weaue therewith little boats, and the rinds thereof be good to make saile-clothes, curtains, mats, and couerlets, clothes also for hangings, and ropes. Nay, they vse to chew and eat it both raw and sodden: but they swallow the iuice only down the throat, and spit out the grosse substance. Moreouer, there is *Papyrus* found I in Syria, about that very lake and meer whereas the sweet *Calamus* aboue named grows. Neither vsed king *Antigonus* any other ropes about the tackling of his ships, but such as were made hereof. For as yet the vse of Spartum was not common. Moreouer, it is not long since that there was found growing in Euphrates about Babylon, this plant *Papyrus*, and knowne to serue for paper as well as the other in Egypt. And yet for all that, the Parthians will not leaue their old custome to weaue and purple letters in their cloathes, after the maner of embroderie. Now as touching the writing paper made of *Papyrus*: after they haue cut it into certaine trunks, as long or as short as the size of their paper, they diuide or slue it with the point of a needle or bodkin for the purpose, into very thin plates or leaues, but they driue them as broad and large K as possibly they can.

CHAP. XII.

¶ Of diuers kinds of Paper, and how writing Paper is made: also the triall of good or bad Paper: and the glue or past belonging thereto.

THE best sheets or leaues of paper be those which are set out of the very midst or heart of the stem or stalk of *Papyrus*: and so consequently better or worse, according as they be nearer or farther from it. In antient time the principall paper and the largest was called Hieratica, [i. sacred or holy] as being employed only about religious and diuine books. But afterwards the flatterers of the Emperour *Augustus* named those of the best sort *Augustæ*: like as the second *Livia*, after the name of his wife. And hereupon it came that the paper Hieratica was set in a third ranke. Next to them in goodnesse was reputed the paper *Amphitheatrike*, which name was giuen vnto it of the place where it was made. The polishing and trimming of this paper *Fannius* undertooke, who set vp a shop in Rome for the selling of it: and so skilfull was he and curious in the handling and dressing thereof, that by the time hee had done withall and brought it to a perfect finenesse, hee made the same of a course and common paper, to be royall, & fit for the best persons that should vse it: in such sort, as there was none in any request to speak of, but it: and called after his name it was *Fanniana*. As for that which passed not thorough his hands, nor had his workmanship, it retained still the old bare name *Amphitheatrica*. M After this kind of paper followed that which they called *Saitica*, of a towne or city in Egypt, where great abundance was made thereof of the courser pieces and refuse of the said *Papyrus*. And yet there was another paper, to wit *Taniorica*, so called of a place neere adioyning, made of the grosser part neere to the bark and outside: and this they sold for the weight and no other goodnesse that it had besides. As for the merchant Paper or shop-paper, called *Emporetica*, it was

A was not for to write in, onely it serued as wast Paper for sarples to wrap and packe vp wares in: also for coffins or coronets to lap spice and fruits in, and thereupon merchants and occupiers gaue it that name. And with this, the very cane it selfe is to be seene clad outwardly: and the utmost coat thereof is like to a reed or bulrush, fit for no purpose but to make cordage of and not very good for that vse neither, vnlesse it be for the water only, which it will abide very well. Now the making of all these Papers, was in this sort, namely, vpon a broad bord wet with the cleare water of Nilus. For the fatty and muddie liquor therof serues in stead of gliew, wherewith at the first the thin leafe of the cane *Papyrus*, sluied from the rest, and laid vpon the bord to the full length (in manner of the warpe) according as the trunk will giue leaue, being cut off at both ends, namely, toward the top and the root, is wet and besmeared: then is there another laid ouerthwart it, after the order of the woofe, with a crosse graine to the other: and so is the web (as it were) of the Paper performed. Pressed afterwards it is in certaine presses, that both leaues may stick together: and then the whole sheets are dried in the Sun. Which done, they be so couched together, that the best and largest lie first, and so consequently in order as they be worse and of lesse size, vntill you come to the worst. And one scape or trunk lightly of the cane *Papyrus*, yeelds not aboue 20 such sheets. Great difference there is in them for the breadth, notwithstanding the length be all one. The best, namely which were taken out of the heart of the cane, beate 13 fingers in breadth. The Hieratica Paper wants two of that number. The *Fannia* is but ten fingers broad. The common Paper *Amphitheatrica*, but nine. *Saitica* yet fewer, and will not beare the stroke of the hammer. And as for the merchants Paper, it was so short and narrow, that it went not aboue six fingers. Moreouer, in Paper these 4 things must be considered, that it be fine, well compact, white, and smooth. Howbeit, *Claudius Caesar* the Emperour abated the credite of the Paper *Augusta*, that it was no more accounted the best: for indeed so thin it was, that it would not abide the dent of the pen: besides, it would not hold inke, but shew the letters on the other side; and was euermore in danger of blurring and blotting, specially on the back part: and otherwise, vnfitly it was to the eie, for that a man might so easily see thorough it. And therefore he deuised to fortifie and strengthen the said Paper, and laid another course or coat (as it were) ouer the former, in manner of a double woofe. Hee enlarged also the breadth of the Paper: for he caused it to be a foot broad, yea, and some a foot and an halfe, I meane that kind which was called *Macrocola*, or large Roiall Paper. But herin was a fault, and reason found D it out: for if one leafe of this large Paper were plucked off, the more pages took harme thereby, and were lost. And therefore the former *Claudian* Paper, which had but 3 leaues of *Papyrus*, was preferred before all the rest. Howbeit, that which was named *Augustane* bare the name for letters misshue, and the *Liuiane* continued still in the owne credite, hauing no property of the first and principall, but all in a second degree. The roughnesse of Paper is polished and smoothed either with some tooth, or else with a Porcellane shell: but the letters in such slick Paper, will soone fade and decay. For by polishing, it will not receiue the inke so deepe as when it is not smoothed, although otherwise it will shine the better. Moreouer, it falls out many times, that if the humor be not artificially laid, the Paper is very stubborn: but this fault is soon found out at the very first stroke of the hammer, or else discovered by the smell, especially if good heed E were not taken in the tempering therof. As for the spots and speckles, the eie will quickly spie them: but the long streaks, and veines lying close couched between the pasted places, can hardly be discerned before that the letter runs abroad, and shewes how in the spongy substance of the Paper wanting that past, the ink will sinke thorough, and make blots; so deceitfull is the making of this Paper. What remedie then? but to be at a second labor to past it new againe another way, to wit, with the common past that wee vse, made with the finest floure of wheat, and tempered with hote scalding water, and a little vinegre mingled therewith. For the joiners glue and that made of gums, is brittle, and will not abide the rolling vp of these sheets into quiers. But they that wil go more surely to work, and make an exquisite past indeed, boile the soft and tender crums or leaued bread in seething water, and then let it run thorough a strainer, which F they vse to this purpose. For besides that the Paper hereby will be more firme, and haue lesse flaws, it surmounts also in sweetnesse the water of Nilus. Moreouer, all kind of past whatsoever for this effect, ought neither to be staler than a day old, nor yet fresher and vnder that age. After that it is thus pasted, they beat it thin with the hammer: and a second time runne lightly ouer with new past: and then being thus knit & bound fast again, it is made smooth and void of wrinkles,

wrinkles, and finally beaten euen with the hammer, and driuen out in length and breadth. After this manner was that Paper made, wherein were written the bookes and records of the two *Gracchi*, *Tiberius* and *Caius*, with their owne hands, long agoe: the which I saw in the house of *Pomponius Secundus*, a noble citizen of Rome, and a renowned Poet, almost two hundred yeares after their death. As for the writings of *Cicero*, of *Augustus* late Emperour of famous memorie, and of *Virgill*, we daily see and handle them, by the meanes of Paper so good and durable.

CHAP. XIII.

¶ Of the bookes of *Numa*.

WE find many examples in stories, which very directly and mightily do testifie against *M. Varro*, as touching Papers. For *Cassius Hemina* (a most faithfull and ancient writer) in the fourth booke of his *Annales*, hath reported, That one *Cn. Terentius* a scribe or publicke Notarie, as he digged and delued in a ground which he had neare to *Ianiculum*, light vpon a chist, wherein lay the bodie of *Numa*, sometime king of Rome. In the same alfo were found the bookes of the said king. And (as he affirmeth) this happened in that yeare, when *Pub. Cornelius* the sonne of *Lucius*, surnamed *Cethegus*, and *M. Babinus* sonne of *Quintus*, surnamed *Pamphilus*, were Consuls of Rome: betweene which time and the raigne of *Numa*, by iust computation are reckoned 535 yeeres. He saith moreover, That those bookes were made of the Paper abouenamed. The greater wonder it was, how such kind of books should last so long, especially within the earth, and not putrifie? The thing therefore being so strange, and in manner miraculous, that Paper should continue all that time, I think it not amisse to set down the very words of *Hemina* likewise, as he deliuiers them. The world made a wonder (quoth he) how these books could possibly endure so many yeeres? but the party who found them yeelded this reason: That within the said coffer about the mids of it, there was a stone foure-square: lapped all about and bound euery way with [waxe] candles in manner of a serecloth: vpon which stone, the foresaid bookes were laid: and therefore it was (as he supposed) that they did not rot. Moreover, the bookes also were embalm'd with the rosin or oile of Cedar, which might be a good reason in his conceit, that the moths came not to them. Now these bookes contained the Philosophie and doctrine of *Pythagoras*: and for that they treated of that Philosophical argument, burnt they were, by order from *Q. Petilius* the Pretor for that time being. The same storie in effect doth *C. Piso Censorinus* (a man who had been Censor) report in the first booke of his commentaries: howbeit, he setteth downe their number withall: and saith they were fourteen in all, whereof seuen treated of the Pontificall law, and matters of religion; and as many discoursed of *Pythagoras* his Philosophie. But *Tuditanus* in the thirteenth booke of the *Annales* affirmeth, That they were the decretals only of *Numa*, and contained his ordinances. As for *Varro* himselfe, he writeth in the first booke of *Humane Antiquities*, that they were in all but twelue. And *Antias* in his second booke reporteth, That two of them were written in Latine, and contained the Pontificall diuinitie and church-matters: and other twaine penned in Greeke, were full of precepts in Philosophie. He also affirmes in his third booke, for what cause the said books by vertue of a publick decree were consumed with fire. But all Historiographers agree in this, That one of the *Sibyls* brought vnto *Tarquinius* the proud three books: of which, two were burnt by her owne selfe: and the third likewise perished with fire, together with the Capitol, during the troubles of *Sylla*. Ouer and besides, *Mutianus*, a man who had been thrice Consul of Rome, hath left on record, that of late, while he was lord gouernor of Lycia, he read in a certain temple an Epistle written by prince *Sarpedon* in Paper, and bearing date from Troy. And I wonder the rather at this, if so be that when *Homer* liued and wrote his Poeme, there was no land of *Egypt* as now there is: or why, in case there was such vse of Paper then, himself should write, that in the very same Lycia, *Bellerophon* had writing tables giuen him to deliuer as touching his owne death, and not rather letters misliuewrot in Paper? Wel, howeuer that be, this is certaine, that there is a scarcitie otherwhiles of Paper also, as well as of other commodities: and this cane or reed Papyrus doth many times faile. For not long since, euen in the daies of *Tiberius* the Emperour, in a dearth and want of Paper, there were commissioners deputed and appointed by the Senat of Rome, for the dispensing and distribution of it among the people: otherwise there had been a great mutinie, and tumult at Rome about Paper.

CHAP.

CHAP. XIII.

¶ Of the trees in *Ethiopia*.

AS touching *Ethiopia*, and namely that quarter which confineth vpon *Egypt*, it hath in manner no trees at all of any name, saue those that beare wooll or cotton, concerning the nature of which trees, we haue sufficiently spoken in the description of the Indians, and of Arabia: and yet in very truth, the cotton that is brought from these trees in *Ethiopia*, comes neerer to wooll than any thing els; howeuer the trees be otherwise like to the rest of that kinde: and the burse or cod wherein this woollie substance lyes, is greater, and as big as a Pomegranat. Besides these, there be Date trees also, like to such as we haue before described. As touching other trees, and especially the odoriferous woods within the Isles that lie vpon *Ethiopia* round about, we haue said enough in the treatise of those Islands.

CHAP. XV.

¶ Of the trees growing in mount *Atlas*: of Citron tables: of the commendable perfections, and contrariwise of the defaults thereof.

THE mountaine *Atlas* (by report) hath a wood in it of peculiar trees that elswere grow not, whereof we haue already written. The Mores that border vpon it, are stored with abundance of Citron trees: from whence cometh that excessive expence and superfluitie about Citron tables made thereof. And our dames and wiues at home (by way of reuenge) vse to twit vs their husbands therewith, when we would seem to find fault with the costly pearls that they do weare. There is at this day to be seen a board of Citron wood, belonging sometimes to *M. Tullius Cicero*, which cost him ten thousand Sesterces: a strange matter, considering hee was no rich man: but more wonderfull, if we call to mind the seueritie of that age wherein hee liued. Much speech there is besides of *Gallus Asinius* his table, fold for eleuen thousand Sesterces. Moreover, there are two other, which *K. Tuba* sold: the one was prised at 15000 Sesterces, and the other held little vnder. Not long since, there was one of them chanced to be burnt, and it came with other household stuff but from the cottages in Mauritania, which cost 14000 Sesterces: a good round summe of money, and the price of a faire lordship, if a man would beat the cost to purchase lands so deer. But the fairest and largest table of Citron wood, that to this day hath bene seene, came from *Ptolomae* king of Mauritania, the which was made of two demie-rounds or halfe circles, joined together so artificially, that for the closenesse of the joint (which could not be discern'd) it was more admirable than possibly it could haue been if it had been naturally of one entire peece: the diameter of it caried foure foot and a halfe, and three inches thicke it was. Likewise another such table there was, surnamed *Nomius*, of one *Nomius* a slave, enfranchised by *Tiberius* the Emperour: the square or diameter whereof, was foure foot within 3 quarters of an inch; and the thicknesse halfe a foot lacking so much. And here I cannot forget and ouerpasse, how that the Emperour *Tiberius* himselfe had a table, which being two inches and three quarters about 4 foot in the diameter, and an inch and an halfe thick throughout, he caused to be plated all ouer, for that *Nomius* his freed-servant had one so rich and magnificent, made altogether of a knot: a knot (I say) or a knur in the root of the tree, which is the very beantie of the wood, and giues all the grace to tables made thereof; and namely, if this knot lie altogether within ground, it is without comparison excellent, and farre more rare and singular than any of the timber above, either in the trunk and bodie, or in the armes and boughes of the tree. So that (to say a truth) this costly ware bought so deare, is no better than the superfluous excrescence of trees: the largenesse whereof, as also of their roots, may be esteemed by the roundnesse that they carie. Now are these Citron trees much like to the female Cypresse (especially that of the wild kind) in leaf, and in body. A mountaine there is in high Mauritania, called *Anchorarius*, which was wont to yeeld the best and fairest citron trees, although now it be naked and despoiled of them. But to returne to our tables aforesaid: the principall be they which are either crisped in the length of the vein, or beset here and there with winding spors. In the former, the wood curleth in and out along the graine, and therefore such bee named *Tigrinae*, [i. Tigre-tables.] In the other, there be represented sundrie tufts as it were enfolded

folded and enwrapped round, and those they call Pantherinae, [i. Panther or Luzerne tables.] There be againe, whereof the worke in wainescot resembleth the waues of the sea: and the better grace they haue, and be more esteemed, if they make a shew of the eyes appearing in Peacocks tailes. Next in account and request to these abouenamed, be those that are frised with small spots standing thicke, as if many graines were gathered together, which they call there-upon (of some resemblance of little bees or flies) Apiatae, as if they were speckled & frised with their dung. But be the worke and graine of the wood what it will, the color makes all. Here at Rome we see most store by that colour which is like to mead or honied wine, shining and glittering in the veins of the wood. After which considerations, men regard much the breadth & largenes of the whole plank, standing of one entire peece which makes the table. Some take a great pleasure to see in one Citron board many of those faults which be incident to trees, to wit, the Lignum, for so they call the simple, plain, and bare wood and timber without any branched or curled graine at all, without a shining lustre and glittering glosse, without worke to be seen in any order digested, or at the most (if any be) representing the leaues of a Plane tree. Again, the resemblance either of the vein or color of a kind of Oke wood called Ilex. Moreover, the rifts and chinks which timber is subiect vnto, by reason principally of wind and Suns heat: or else hairie streakes that be like to such cliffs and crenisses. Afterwards men were delighted with a kind of Lamprey veine traueising and running ouer a black crosse way: and with an outward skin or coat marked with speckes or knottie knurs, like to Poppie heads: and generally with a color all ouer, comming neer to black, or at leastwise bespotted with sundrie colors. The Barbarians for to season the wood of this Citron tree, vse to burie the green boards or planks thereof within the ground, and besmeare them all ouer with wax. But the artificers and workmen do put them for 7 daies within heaps of corne, and stay 7 daies more ere they be wrought: & a wonder it is incredible, how much of the weight the wood loses by this means. Moreover, of late daies we haue found the experience by shipwracks, that this timber also wil by nothing in the world be sooner dried nor hardened to last a long time without corruption, than by seawater. Howbeit, to maintaine these tables best, and to cause them for to shine bright, the way is to rub them with a drie hand, especially after that a man is newly come out of the baines or hot house. Neither catch they any harme or staine, if wine be spilt thereupon: so as it should seeme they were naturally made for wine. To conclude, a tree this is seruing for the ornaments of this life, and the trim furniture of our house, few or none like to it: and therefore me thinks I do not amisse to continue the discourse thereof somewhat longer than ordinarie.

CHAP. XVI.

¶ Of the tree *Thya*, what it is.

WEll knowne vnto *Homer* was this tree, which in Greeke is named * *Θύα*, but some call it *Thya*: for among other daintie odors and sweet woods, he reports, That dame *Circe* (whom he would haue to be reputed as a goddesse) burnt of this *Thyon*. And therefore much deceiued are they, who vnderstand by that word *Thyon*, perfumes and odoriferous spice, considering that in one and the very same verse, the Poet maketh mention of the Cedar and Larch tree together with *Thyon*, whereby it appeareth plaine, that he spake of trees onely. *Theophrastus*, who after the daies of *Alexander* the Great, was the first that wrote the historie of those acts which happened about the 440 yeare from the foundation of Rome, gaue great honour euen then to this Tree, and reported, That all carpenters worke of temples in old time, was made of the same; as of a timber euermlasting, and which in rouses would continue without all putrefaction and corruption whatsoever. Moreover, he writeth, That the wood of the root is so curled and frised, as none more; and that of no timber besides are more curious peeces of works made, nor of greater price. Ouer and besides, he saith, That the fairest and goodliest trees of this kind, doe grow about the temple of *Iupiter Hammon*: and some of them also within the countrey *Cyrenaica* toward the inland parts. But all this while not a word of the foresaid costly tables speaks he in his whole history: and verily before that of *Cicero*, there is no record in writers of any such tables: whereby it appeareth, that they be come vp but of late daies. Another tree there is likewise of that name, bearing an apple or fruit, which some cannot abide for the strong fauor and bitternes withall, others again like and loue it as well. This tree also beautifieth and setteth out the house, but I purpose not to bestow many more words thereof.

CHAP.

CHAP. XVII.

¶ Of the tree *Lotus*.

IN the same coast of *Africke* which regards *Italy* there growes *Lotos*, which they call *Celtis*. A notable tree it is and of speciall marke: found also here among vs now in *Italy*, but together with the soile it hath changed the nature. The fairest and goodliest of them be about the *Syrris* and the *Nasamones*: they be as big and tall as Peare trees, howsoeuer *Nepos Cornelius* saith they are but little and low. The leaues be thick cut and indented: otherwise they are like to those of the *Ilex* or *Holme* tree. Many sorts there be of the *Lote* tree, and those for the most part according to their diuers and seuerall fruits. Howbeit ordinarily the fruit is as big as a bean, and of yellow colour as *Saffron*; yet before it is full ripe it changeth into sundry colors like as grapes do. It growes thick among the branches of the tree in manner of myrtle berries, and not like to the cherries in *Italy*: and in those plants aboue named the meat thereof is so sweet and pleasant, that it hath giuen the name both to a nation and countrey, in so much as the people be called *Lorophagi*: and withall, so welcome be all strangers thither, and so well contented with their entertainment, that they forget their owne native soile, for the loue they haue to this fruit when they haue once taken to it. By report, whoso eats thereof is free from the diseases of the belly. This fruit is counted the better which hath no kernell within: for there is another kind wherein the said kernell seems as hard as a bone. Moreover, out of this fruit there is prest a wine like to *Mede*, which the aboue named *Nepos* saith will not last aboue ten daies: who reporteth besides, that the inhabitants do stamp the berries thereof with wheat or frumentie into a past, and so put it vp in great barrells or such like vessels for the prouision of their food. Moreover, we haue heard say that whole armies passing to and fro through *Africke*, haue fed thereof and had no other meat: the wood is blacke of colour, and much sought for it is to make pipes and fises: of the root whereof hafts of daggers and kniues be made, besides other pretty deuises of small vse. Thus much as touching the nature of the *Lote* tree in those parts: for there is an herb also of that name [called *Melilote*.] As for the Egyptian *Lotus* it is a plant bearing a stalke, and growes in the marishes of *Egypt*: for when the waters of *Nilus* are fallen which drencheth the countrey, this plant comes vp in the flat and waterie leuell along the riuer, with a stem like to the [Egyptian] bean, with leaues thrust close and thick together, howbeit shorter and lesse than those of the bean: in the top of which stalk it bears fruit in manner of an head, for cuts and chamfers and euery thing els like those of *Poppy*: within which be contained certain grains or seeds resembling *Millet*. The inhabitants of that countrey do pile together in heaps those heads, and so let them putrifie: afterwards they separate them, wash them faire, and when they be dry, stamp and mold them, and therof make their bread. A strange and wonderful thing it is that is reported besides, namely, That when the Sun goes down, those heads close vp and be covered with leaues, and remaine shut vntill the morning, at what time they open againe: and thus continue this course vntill they be ripe, and that the floure which is white doth fall of it selfe.

CHAP. XVIII.

¶ Of the very stalke, scape or stem, and root of *Lotus*.

IT is said moreover as touching this Egyptian *Lotus*, That in *Euphrates* the very head of the stalk together with the floure, vseth in the euening to be plunged & drowned vnder the water vntill midnight, and so deep to settle toward the bottom, that a man with his hand canot reach thereto, nor find any part of it: but after that time it begins to rise by little and little, and by Sun-rising appeares aboue water and opens the floure, and still mounteth higher and higher a good height from the water. This *Lotos* hath a root as big as a Quince, covered with a black rinde or barke much like to the huske of a Chestnut. The substance within is white and delectable to eat, but more pleasant being either sodden in water, or roasted vnder embers, than raw: and Hogs will feed fat with nothing better, than with the pills and parings of this root.

Mm

CHAP.

CHAP. XXI.

¶ Of *Paliurus*, the *Pomegranate*, and the *floure of the Pomegranat*.

THe region of Cyrenaica in Africk makes more account of their *Paliurus* than of *Lotus*: for the *Paliurus* shoots forth more twigs and branches, and hath a redder fruit than the *Lotus*: besides, the fruit and the kernell be eaten apart; and in truth pleasant it is of it selfe alone, but more pleasant with wine; yea, and the iuice thereof giueth a better tast to wine if it be put into it. The inland parts of Africk, as far as to the Garamants and the desarts, be wel planted with *Dare* trees faire and great, bearing goodly and pleasant dates, and those especialy in that quarter of Barbary which lieth about the temple of *Iupiter Hammon*. But the territory of Carthage challengeth to it selfe the *Punick apple*: some call it the *Pomegranat*, & they haue made seuerall kinds thereof, calling that *Apyrinon*, which hath no woody or hard kernell within: and indeed these *pomegranats* are naturally more white, the graine within more pleasant, and diuided with membranes and pellicles between, nothing so bitter as the other: for in both sorts they be framed and fashioned within like to hony combs. As for those *pomegranats* which haue such kernels or stones, there be fve kinds of them, to wit, sweet, soure, temperat between both, styptick or austere, and tasting of wine. But the *pomegranats* of *Samos* and *Egypt* haue this difference one from another, That some haue red floures on the head, and are therefore called *Erythrocoma*: others are white, and such they name *Leucocoma*. The rind of soure *pomegranats* is better for tanners and curriers to dresse their leather with, than of the rest. The floure is called *Balistum*, both medicinable and also good for to dyt cloth: and hereof cometh the colour of *Punicus* [i. a light red, or a bay] taking the name of the apple *Punice*, or *Pomegranat*.

CHAP. XX.

¶ Of the Shrubs in Asia and Greece.

IN Asia & Greece there grow certain shrubs, to wit, *Epipactis*, which some call *Elleborine*, with small leaues, which being taken in drink are good against poyson, like as the leaues of *Erice* [i. Heath or Lings] withstand the sting of serpents.

CHAP. XXI.

¶ Of *Thimelæa* or *Chamelæa*, *Tragacanth*: of *Tragium* or *Scorpio*. Also of *Myrice*, *Brya*, and *Galla*.

THe shrub or bush which beares the graine *Gnidium*, that some call *Linum*, is after some writers named *Thymelæa*, according to others *Chamelæa*: there be that call it *Pyrosachne*: some again giue it the name of *Cneston*, others of *Cneoros*. This plant howsoever it be named resembleth the wild *Oliue*, but that the leaues be narrower and gummy to the teeth, if a man bite them: for height and bignesse answerable to the myrtle: the seed thereof is for colour and fashion like to the grain of wheat, and serueth only for physicke.

As touching the plant *Tragium*, it is to be found in the Isle *Candy* onely. It hath a resemblance of the *Terebinth*, like as the seed also, which, by report, is most excellent and effectuall to heale wounds made by darts and arrowes. The same Isle hath the bush *Tragacanth* growing in it, the root whereof is like to that of *Bedegnar*: and the same *Tragacanth* is much preferred before that which grows either in *Media* or *Achaia*. A pound of *Tragacanth* is worth 30 deniers Roman. As for the plant *Tragium* or *Scorpio*, it grows likewise in Asia. A kind of bramble or brier it is without any leaues, bearing fruit of berries much like to red grapes, whereof there is good vse in physicke.

Touching *Myrice*, which others call *Tamarix*, and *Achaia Brya* the wilde; Italy brings it forth: this special propertie it hath, that the tame kind thereof only, namely that which grows in gardens, beareth fruit like galls. In Syria & Egypt this groweth plenteously, and the wood thereof we call *Vnhappy*: but the more vnluckie and vnforgunate be those of Greece: for there groweth *Ostrya*, named also *Ostrya*, a solitary tree about watery and moist rocks, hauing barke

A and branches like to the *Ash*, but *Peare-tree* leaues, saue that they be somewhat longer & thicker, with long cuts or lines wrinkled and riuled thoroughout: and the seed in forme and color is like to barley. The wood of it is hard and strong: and some say if any peece thereof be brought into an house where a woman is in trauaile of child-birth, she shall haue difficult labour, and hardly be deliuered: and whosoever lyeth sicke there, shall die a miserable death.

CHAP. XXII.

¶ Of *Euonymus* or the *Spindle tree of Adrachne*, *Congygria*, and *Thapsia*.

BI^N the Island *Lesbos*, there groweth a tree named *Euonymos*, no better nor more lucky than *Ostrya* before said. Much unlike it is not the *Pomegranat* tree. As for the leafe that it beares, it is of a middle size between that of the *Pomegranat* and the *Bay*, otherwise for shape and softnesse, it resembles that of the *Pomegranat*: the floure is whiter; the smell and tast wherof is pestiferous and menaces present death: it beares cods like to *Sesama*, within which be grains or seeds soure square and thick, but deadly vnto all creatures that eat them. The leafe also is as venomous as the graine, yet otherwhiles there ensues therof a fluxe and gurrie of the belly, which saues their life, or else there were no way but one.

Alexander Cornelius called that tree * *Eone*, whereof the famous ship *Argo* was made; and like it was (by his saying) to the *Oke* that carries *Misselto*, the timber whereof neither water wil putrifie, nor fire consume, no more than the *Misselto* it selfe. But so far as euer I could learn, no man knew that tree but him selfe.

As for the tree *Adrachne*, all the Greeks in manner take *Porcellaine* for it; whereas indeed *Porcellaine* is an hearb, called in Greeke *Andrachne*, so as they differ in one letter: but *Aurachne* is a tree of the wild Forrests growing vpon mountaines, and neuer in the plaines beneath; resembling the *Arbut* or *Strawberrie* tree, saue that the leaues be lesse, and neuer fade nor fall. And for the barke, rough and rugged indeed it is not, but a man would say it were frozen and all anye round about, so vnpleasant it is to the eye.

Like in leafe to *Adrachne*, is the tree *Congygria*, but otherwise it is lesse and lower. This propertie it hath, To lose the fruit wholly, together with the soft downe that it beareth, which they call *Pappus*, a qualitie that no other tree hath, beside it. Like to *Andrachne* also is *Apharce*, and beares fruit twice in one yeare, as well as it. The former is ripe, when the grape begins to bud and bloom; the latter, in the beginning of winter: but what manner of fruit this should be, I haue not found written.

As touching the *Ferula*, it will not be amisse to speake therof among forrain plants, yea and to range it among trees: for (as hereafter we wil distinguish in the diuision of trees) some plants are of this nature, To shew all the wood they haue, where the bark should be; that is to say, without forth: and where the heart of the wood ought to be, they haue nought but a light and spongy pith, as the *Elder*; or else nothing at all, as *Canes* and *Reeds*. But to come to our *Ferula* above named, it growes in hot countries beyond-sea, with a stalk or stem full of knotty joints.

Two kinds be knowne of them: for that which the Greeks call *Marthex*, groweth tall; but *Narthexia* is always low. The leaues that put forth at the joints, be euer biggest toward the ground: this plant otherwise is of the nature of *Dill*, and the fruit is not vnlike. There is not a plant in the world lighter than it for the bignesse: being easie therefore to weld and carrie, the stem thereof serueth old men in stead of staves, to rest vpon. The seed of this *Ferula* or *Fennell* gyant, some haue called *Thapsia*, but herein they be deceived, for that *Thapsia* doubtlesse is a kind of *Ferula* by it selfe, leaues like *Fennell*, with an hollow stalk, and neuer exceeds in height the length of a walking staffe: the seed is like to that of the *Ferula*, and the root white: cut it, there issues forth milke, stamp it, you shall see it yeeld plenty of iuice. Neither is the barke of the root rejected and cast aside, although both it, the milke, and the iuice, be very poisons: for surely the root is hurtfull to them that dig it vp, and if neuer so little of the aire therof breath vpon them (so venomous it is) their bodies will bolne and swell, their faces will be all overrun with a wild fire: to prevent which mischises, they are forced to anoint their bodies with a ceror. Howbeit as dangerous as they be, *Phisicians* make vse thereof in the cure of many inward diseases, so they be wel corrected and tempered with other safe medicines. In like maner they say, that the iuice

of Thapsia is singular good for the shedding and falling of the haire; also against the blacke & blew markes remaining after stripes: as if Nature furnished not Physicians sufficiently with other wholsom remedies, but that needs they must haue recourse to such poisonous and mischievous medicines. But this is the cast of them all, to pretend such colourable excuses, for their handling of poisons: and so impudent and shamelesse are some besides, that they bash not to auow the vse of them, bearing vs in hand, that Physick cannot stand without poison. The Thapsia in Affricke is the strongest of all others. Some vse to slit or cut the stem about harvest, and in the very root make an hollow trough to receiue the juice that runs downe, and when it is dried, they take it away. Others againe do bruise and stamp in a mortar, both leafe, stalke, and root, and when the juice that is pressed there-from, is thoroughly dried in the Sun, they reduce the same into certain Trochisques. *Nero Cesar* the Emperor in the beginning of his Empire, gaue great credit to Thapsia: for vsing (as he did) to be a night-walker, and to make many ryots and much misrule in the darke, he met otherwhiles with those that would fo beat him, as that he carried away the marks black and blew in his face: but (as he was subtil & desirous to auoid the speech of the people) an ointment he had made of Thapsia, Frankincense, and Waxe, wherewith hee would anoint his face, and by the next morning come abroad with a cleare skin, and no such marks to be seene; to the great astonishment of all that saw him. To conclude, the Ferula maketh the best matches to keep fire, by all mens confession: and those in *Ægypt* excell the rest, for that purpose.

CHAP. XXIII.

¶ Of *Capparis*, or *Cynosbatus*, or *Ophcostaphyle*: and of *Sari*.

Likewise in *Ægypt* growes *Capparis*, a shrub of a harder and more woody substance: well knowne for the seed and fruit that it carries, commonly eaten with meats, and for the most part the Capres and the stalke are plucked and gathered together. The outlandish Capres (not growing in *Ægypt*) we must take good heed of and beware: for those of Arabia be pestilentiall and venomous: they of Affricke be hurtfull to the gumbs; and principally the Marmarike are enemies to the matrice, and breed ventosities. The Apulian Capres cause vomit, and make lubricitie both of stomack and belly. Some call the shrub *Cynosbatus*: others *Ophcostaphyle*. Moreouer, there is a plant of shrubs kind, called *Sari*, it growes along *Nilus*, almost two cubits high, it beareth an inch in thicknesse, and hath leaues like to Papyr-reed, and men do chew and eat it after the same manner. As touching the root, it is singular good for Smiths cole to burne in their forges, so hard it is and durable.

CHAP. XXIII.

¶ Of the Royall thorn of Babylon: and of *Cytisus*.

I May not ouer-passe that plant, which about Babylon is sowed vpon Thornes only: for otherwise it knowes not how to liue no more than Misseleto, but on trees: howbeit this plant that I speake of, is sowed vpon that Thorne alone called the Royall Thorne. And a strange thing it is of this plant, That it springs and grows the very same day that it is set or sowed. Now the seasonable time of sowing it, is at the very rising of the Dog-star, and notwithstanding the Suns heat, right quickly ouerspreads it the tree or shrub, on which it is cast. The Babylonians vse to aromatize their wine therewith; and for that purpose are they so carefull to sow it. But the foresaid Thorne tree groweth also about the long walls of Athens [reaching from the tower to the haueu Pyraeum.]

Noreouer, a shrub there is, called *Cytisus*, highly commended and wondrous much praised by *Aristomachus* the Athenian, for feeding of sheep, as also for fattening of swine, when it is drie: and he promisseth and assureth, That an acre of land sowed therewith, although it be none of the best soile, but of a meane and ordinarie rent, will yeeld yearly [communibus annis] 2000 Sesterces to the master. As great profit commeth thereby, as of the pulse like Vetches, called *Eryum*; but sooner will a beast be satisfied therewith, and a very little thereof will serue to fat the same: inso much as if horses or any such labouring cattell may meet with that prouender, they will not care for barley: neither is there any other grasse, or foddors, that yeeldeth more or better milke,

A milk than, it; but that which passeth all, the pasturage of *Cytisus*, preferueth sheep, goats, and such like cattell, sound and safe from all diseases whatsoever.ouer and besides, if a nurse want milke, *Aristomachus* prescribes her to take *Cytisus* dry, and teeth it in water, and so to drink it in wine, whereby not onely her milke will come againe in great plenty, but the babe that sucketh thereof will be the stronger and taller. He giueth it also to hens and pullein whiles it is green, or steeped and wet if it chance to be dry. *Democritus* and *Aristomachus* both do promise and assure vs, that Bees will neuer miscarry nor faile, if they may meet with *Cytisus* to feed vpon. And yet there is not a thing of lesse charge to maintaine than it. Sowne it is commonly in the spring with barley, I mean the seed thereof, as they mean to sow Leekes or Porret seed: or els they set plants and slips thereof from the stalke, in Autumne before mid-winter. If the seed be sowne, it ought to be steeped and moistned before: yea, and if there fall no store of raine after it is in the ground, it had need to be watered. As for the plants when they be a cubit long, are replanted in a trench a foot deepe. Otherwhiles the tender quicke-sets are planted about the Equinoxes, to wit, in mid-March and mid-September. In three yeares they come to their full growth. They vse to cut it downe in the Spring-Equinox, when it hath done flourishing: a worke that a very lad or old woman may do, euen such as can skill of nothing besides. This *Cytisus* is in outward hew white: and in one word, if a man would pourtray the likenes thereof, it resembleth for all the world a shrub of Trifolie or Clauer-grasse, with narrower leaues. Being thus gathered, it is euer giuen to beasts once in three daies. And in Winter, that which is dried ought to be wet before they haue it. Ten pound of it is a sufficient foddering for an horse: and for other small cattell according to the proportion. But by the way this is not to be omitted, that it is good to set garlicke and sow onions seed betwene the rewes and rankes of *Cytisus* where it groweth, and they will thrue more plenteously. This shrub was first discovered and known in the Island *Cythnus*, and from thence translated into all the other Cyclades: and soon after brought to all the cities of Greece; whereupon followed great increase of milke, & plenty of cheefe. I marvel therefore very much that it is so season and rare in Italy: and a plant it is that feareth neither heate nor cold, no iniury of haile, nor offence by snow; and as *Hyginus* saith, it is not afraid so much as of the enemy; the reason is, because the wood thereof is nothing beautifull to the eye.

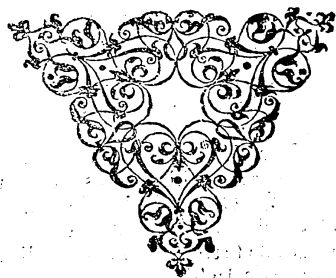
CHAP. XXV.

¶ Of shrubs and trees growing in our Mediterranean sea, in the red sea, and in the Indian sea.

Even the very sea affordeth shrubs and trees: but those of the Mediterranean sea be far lesse than of other seas; for the red sea and all the Levant Ocean is full of woods. That which the Greeks call *Reik*, hath no other name in any language. As for *Alga*, is a word appropriate rather to weeds or sea-herbs, called *Reik*: but this *Phycos* is a very shrub, bearing broad leaues of a green colour, which some call *Praon*, others *Zoster*. A second kind there is of *Phycos*, with an hairy leafe like to Fennell, and groweth vpon rockes. As for the former called *Zoster*, it is found among the shelles and shallow waters not far from the shore: both the one and the other appeare in the Spring, and be gon in Autumne. That of this kind which groweth in Candy about rockes, is much used of dyers for the purple color: and namely on the North part of that Island, and among sponges, for that is most commendable for this purpose. A third sort there is like unto the grasse called *Coich*, or *Dent-de-chien*, hauing a root full of ioynts, and a stalk likewise in manner of a reed.

Another shrub there is in that sea called *Bryon*, with leaues like Lettice, saue onely they be more wrinkled and crumpled together: but this growes more inward and farther into the sea. Mary in the deep groweth both *Fir* and *Oke* to the height of a cubit. Among these branches, the Cockles and Muskles, and such like shell fishes do fettle and sticke vnto them. As for that kind of sea-Oke, some say it is of good vse to dye wooll withall: as also that it beareth Mast or Acorns in the deep: the knowledge of all which we come vnto by those that diue into the bottom of the sea, and such as haue suffered shipwracke and escaped. Moreouer, by report, there be other exceeding great trees, and namely about *Sycione*. As for the sea vine it groweth euerie where: but the fig tree there is without leaues, & hath a red bark. There be also date trees found

in the sea, but as little as shrubs. Without *Hercules* pillers, or the streight of Gebraltar, there are shrubs to be seen, bearing leaues resembling leek blades: and others leaued like to the bay tree, or to the herbe Thyme: and both kinds being cast vp a land turne into the pumith stone. But in the East parts it is a wonderous matter to thinke, that so soon as euer a man is past Cop-tus, he shall find nothing to grow in all the wildernesse, but only a kind of thorne or thistle, cal- led the thirly or dry thorne, and the same but here and there in very few places: whereas in the red sea whole woods do liue, and namely of Baies and Oliues bearing their berries: also when it raineth, certaine Mulhromes, which no sooner be caught with the Suns heat, but they turne into the pumith stone. As touching the shrubs there growing, they be commonly three cubits high, and those so full of sea dogs and cures, that a man shall hardly looke out of the ship in safety, for that many times they will take hold of the very ores and assaile them. The souldiers of *Alexander* the Great who sailed into India made report, That the branches and leaues of the sea trees, so long as they were vnder the water looked green, but when they be taken forth, pre- sently dried with the heate of the Sun, and became salt. Also, that about the shore they found stony rushes and reeds, like vnto naturall rushes indeed. Moreouer, in the deep sea they light on certain little trees branched and full of boughes, in colour of an Ox horne, but the head or top of them was red: handle them in your hand they were as brittle as glasse: put them into the fire they would be red hot like iron: quench them again, they returned to their former colour. In the same tract there be some tides so high, that the sea ouerfloweth and couereth the Woods growing within the Islands, although there be trees in them taller than the highest Planes or Poplars. And those trees beare leaues like Lawrell, and floures for smel and colour resembling the Violet. Their berries be like to Oliues, and those of a pleasant and sweet sauor, which they bring forth in the Autumne: and their leaues neuer shed but continué all the yeare long. The lower sort of these trees the floud couereth all and whole: but the greatest beare vp their heads about the sea, whereunto the mariners do fasten and tie their vessels at a high water: but when it is ebbe, at the very root. Moreouer, by their saying, they saw other trees in the same sea, with leaues euer green vpon them, carying a fruit like to Lupines. King *Iuba* reports, That about the Islands of the Troglodites, there groweth a shrub within the sea, called *Isidos Plocamos*, [*i. Isis haire*] resembling coral, and void of leaues: cut a branch of it from the stock, it becomes hard, changeth colour, and is black: if it fall it is so tender that it will breake like glasse. He speaks moreouer of another called *Charito-blepharon*, which is of great force in amatorious matters: to procure loue: and thereof women (quoth he) make them carkanets and pendant ornaments to hang about their necks. To conclude, he affirms that this shrub hath a certain intelligence when a man would take hold of it, and therefore waxeth as hard as an horne, inso much as it is able to turne the edge of a knife or bill, that vnneth or hardly it may be cut: but in case it be intrapped and drawne vp with cords without any edge toole, it presently turneth to be a stone.



THE

A



B THE FOVRTEENTH BOOK OF THE HISTORIE OF NATURE,

WRITTEN BY C. PLINIUS
SECVNDVS.

Containing the Treatise of Trees bearing Fruit.

The Proeme.

C **T**Hus far forth haue we discoursed of all forreine and strange trees in a manner, such I meane as know not how to liue in any other places but where they naturally first did grow, and which wil- lingly go not into other countries, nor can abide their soile or aire. Good leaue may I now haue to write of Plants and Trees common to all lands, and namely, to ours of Italy, which may seeme to be the very Hort-yard and naturall garden that bare them all. This onely would I aduertise the Readers and Learners to remember, that for this present we purpose to describe their natures and vertues onely, lea- uing out the manner of husbandrie that belongeth vnto them: albeit in their tending and keeping appea- reth the greatest part of their properties, and of Natures workes. And verily, I cannot chuse but maruell still and neuer giue ouer, how it comes to passe, that the remembrance, yea, and the verie names of some trees which antient Writers haue deliuered in their bookes, should be quite gone and abolished. For who would not thinke, that our life should ere this haue gained much by the Maiestie of the Romane Empire; haue dis- covered all things by the meanes of the commerce we haue had with the vniuersall world, by the traffick, ne- gotiation, and societie I say that we haue entered into during the blessed time of peace which we haue enjoyed? considering that by such trade and entercourse, all things heretofore unknowne, might haue come to light. And yet for all this, few or none (beleene me) there are who haue attained to the knowledge of many mat- ters which the old writers in times past haue taught and put in writing. Whereby wee may easily see, that our ancestours were either far more carefull and industrious, or in their industrie more happie and fortu- nate. Considering withall, that about two hundred yeares past *Hesiodus* (who liued in the very infancie of Learning and good letters) began his worke of Agriculture, and set downe rules and precepts for husband- men to follow. After whose good example, many others hauing trauelled and taken like paines, yet haue put vs now to greater labour. For by this means we are not onely to search into the last inventions of later wri- ters, but also to those of antient time which are forgotten and couered with obliuion, through the supine neg- ligence and generall adlensse of all mankind. And what reasons may a man alledge of this drowsinesse, but that which hath lulled the world asleepe? the cause in good faith of all, is this and no other. Wee are readie to forgoe all good Counsailes of old, and to embrace vanities and change of fashions: mens minds now a daies are amused and occupied about new fangles, and their thoughts be rolling; they wander and roue at random, their heads be euer running; and no arts and professions are now set by and in request, but such as bring pence into our purses. Heretofore whilst Kings and Potentates contained themselves within the Domi- nion of their owne Nations, and were not so ambitious as now they bee, no maruell if their wits and spirits kept still at home: and so for want of wealth and riches of Fortune, were forced to employ and exercise the gifts of their minde in such sort as an infinite number of Princes were honoured and renowned for their singular knowledge and learning. Yea, they were more braue in port, and carried a goodlier stem in the World for their skill in Liberall Sciences, than others with all their pomp or riches: beeing fully persuaded and assured, that it becometh way to attaine vnto immortalitie and euermlasting Fame, was by literature and not by

by great possessions and large seignories. And therefore as learning was much honoured and rewarded in those daies, so arts & sciences tending to the common good of this life daily increased. But afterwards when the way was once made to enlarge their territories farther in the world, when princes and states began to make conquests and grow rich and mighty, the posterity felt the smart and losse thereby. Then began men to chuse a Senator for his wealth; to make a judge for his riches, and the election of a civil magistrate and martiall captain, to have an eye and regard only to goods and substance, to land and living: when rents and revenues were the chiefe and onely ornaments that made men seeme wise, iust, politicke, and valiant. Since time that childlesse estate was a point looked into, and advanced men into high place of authoritie and power, procuring them many favorites in hope of succession, since time I say that every man aimed and reached at the readiest meanes of greatest lucre and gaine, setting their whole mind, and reposing their full content and joy in laying land to land, and heaping together possessions, downe went the most precious things of this life, and lost their reputation: all those liberall arts which tooke their name of liberity and freedome (the soueraigne good in this world which were meet for princes, nobles, gentlemen and persons of great state) forwent that prerogative, and fell a contrarie way, yea, and ran quite to wracke and ruine: so as in stead thereof, base flattery, and servitude be the only waies to arise and thrive by: whiles some practise it one way, some another, by flattering, admiring, courting, cronching, and adoring: and all to gather good and get money. This is the onely marke they shoot at, this is the end and accomplishment of all their vowes, praiers, and desires. Inasmuch, as we may perceiue every where, how men of high spirit and great conceits are giuen rather to honor the vices and imperfections of others, than to make the best of their owne vertues and commendable parts. And therefore we may full truly say, that life indeed is dead: Voluptuousnesse and Pleasure alone is alieue, yea and beginneth to beare all the sway. Nevertheless, for all these enormities and hinderances, giue ouer will not I to search into those things that be perished and viterly forgotten, how small and base sooner some of them be, no more than I was affrighted in that regard, from the treatise and discourse of liuing creatures. Notwithstanding that I see Virgil (a most excellent Poet) for that cause only forbore to write of gardens and hort-yards, because he would not enter into such petty matters: and of those so important things that he handled, he gathered only the principall floures, and put them downe in writing. Who albeit that he hath made mention of no more than 15 sorts of grapes, three kinds of Oliues, and as many of Peares, and setting aside the Citrons and Limons, hath not said a word of any apples; yet in this one thing happy and fortunate hee was, For that his worke is highly esteemed, and no imputation of negligence charged vpon him. But where now shall we begin this treatise of ours? What deserueth the chiefe and principall place, but the vine? in which respect Italy hath the name for the very soueraignty of Vine-yards: inasmuch, that therein alone, if there were nothing els, it may well seeme to surpass all other lands, euen those that bring forth odoriferous spices and aromaticall drugs. And yet to say a truth, there is no smell so pleasant whatsoeuer, that out-goeth Vines when they be in their fresh and flourishing time.

CHAP. I.

Of Vines, their nature and manner of bearing.



Vines in old time were by good reason for their bignesse reckoned among trees. For in Populonia, a citie of Tuscan, we see a statue of Iupiter made of the wood of one entire Vine, and yet continued it hath a world of yeares vncorrupt, and without worme. Likewise at Massiles there is a great standing cup or boll to be seene of Vine-wood. At Metapontum there stood a temple of Iuno, bearing vpon pillars of Vine wood. And euen at this day there is a ladder or paire of staires vp to the temple of Diana in Ephesus, framed of one Vine-tree, brought (by report) out of the Island Cypres, for there indeed vines grow to an exceeding bignesse. And to speake a truth, there is no wood more dureable and lasting than is the vine. Howbeit, for my part I would thinke that these singular pieces of worke before-named, were made of wild and sauage Vines: for that these our tame and gentle vines here planted among vs, are by cutting and pruning euery yere kept downe: so as all their whole strength is either drawne without-forth into branches, or els downward into the root for to put out new shoots euer fresh out of the ground: and regard is only had of the fruit and iuice that they do yeeld diuers waies, according to the temperature of the aire & climat, or the nature of the soile wherein they be planted. In the countrey of Campaine about Capua, they be set at the roots of Poplars, and (as it were) wedded vnto

A vnto them: and so being suffered to wind and claspe about them as their husbands, yea, & with their wanton armes or tendrils to climbe aloft, and with their ioints to run vp their boughes, they reach vp to their head, yea, and ouertop them: inasmuch as the grape-gatherer in time of Vintage, puts in a clause in the couenants of his bargain when he is hired, that in case his foot should faile him, and he breake his neck, his master who sets him a worke should giue order for his funerall fire and tombe at his owne proper cost and charges: And in truth Vines will grow infinitely: and vnpossible it is to part them, or rather to pluck them from the trees which they be ioined and coupled vnto. Valerianus Cornelius making mention of many properties and singularities of a vine, thought this among the rest worthie of especiall note and remembrance, that one onely stocke of a vine was sufficient to compasse and inuiron round about a good ferme-house or country messuage, with the branches & pliable shoots that it did put forth. At Rome there is one vine growing within the cloistures of the Portches and galleries built by the Emperresse Liuia, which running and trailing vpon an open frame of railes, couereth and shadoweth the ouertallies made for to walke in: and the same Vine yeeldeth one yere with another a dozen Amphores of good new wine yearly. An ordinarie thing it is, that Vines will surmount any Elms wherefoeuer, be they neuer so tall and lofty. It is reported, that Cynas the embassador of K. Pyrrhus, wondring at the vines of Aricia, for that they grew and mounted so high, would needs taste of the wine that came of their grapes: & finding it to be hard and tart, merrily scoffed and said, That by good right and justice they had done well, to hang the mother that bare such vnpleasant wine vpon so high a gibbet. Beyond the riuer Po in Italy, there is a tree growing which the peasants there call Rumborinus, & by another name * Opulus; it puts forth great armes and boughs, and those spread abroad and beare a round compasse; howbeit, the vines that be planted at the root of these trees, do fill and couer the said boughes: for yee shall haue the very old crooked branches of the Vine (bare as they be and naked of leaues) to wind about the armes, and cawle in manner of a serpent or dragon along the broader and flatter bafe of the boughes, and then the new shoots, top-twigs, and tendrils, wil diuide themselves to the vtmost branches and shoots of the tree, that they will lode and clog her withal. These vines again grow sometime no taller than the ordinary height of a man of middle stature, and beeing supported and vnderpropped with stakes and forks, cleaue and cling thick together, and in this order fill whole vineyards. Others also there be, which with their excessiue creeping vpon frames, with their ouergrowne branches, and some artificiall help of the masters hand, spread so far euery way, that they take vp wide and large courts, ouerspredding not only the sides, but the very middest thereof. See what sundry sorts of vines euen Italy alone is able to afford! But in some prouinces without Italy, ye shall see a vine stand of it selfe without any prop or stay at all, gathering and drawing in her boughs and branches together: thus indeed she groweth but short, howbeit so close couched and trussed round, that the thicknesse makes amends for all. And yet otherwhiles in some coasts the winds are so big and boisterous, that they wil not suffer them thus to grow vp right; as namely in Affrick, and Languedoc, the prouince of Narbon Vines being thus debarred to run vp in height, resting vpon their owne ioints and branches, and euer like to those that be laid along whiles they are a trimming, by deluing about their roots, and pruning their superfluous branches, traile and creepe too and fro along the ground, as weeds and herbes; and all the way as they spread, suck the humor of the earth into their grapes: by which meanes, no maruell it is, if in the inland parts of Affricke there be found some of those grapes bigger than pretty babes. And in no countrey are the grapes of a thicker skin than those of Affricke, wherupon it may well be, that they tooke the name * Duracina (i. hauing hard skins.) For infinite sorts there be of grapes, according to the difference obserued in their quantity and bignesse, in their colour, taste, stones, or kernels: and yet more stil, in regard of the diuers wines made of them. In one place they are of a fresh and bright purple, in another, of a glittering, incarnate, and rosate colour: and ye shall haue them of a faire and liuely Greene. As for the white and black grapes, they be common euery where. The grapes Bumasti haue their name, for that they be so well liig and round, like strutting paps or dugs. The Date-grapes Da & yll are long, both grape and kernel, fashioned in manner of fingers. Moreouer, Nature seems to take her pleasure and make good sport in some kind of them, where ye shall find among them some that be exceeding great, others again that be as small, howbeit pleasant they are, and as sweet as the rest, and such be called Leptorhages. Some last all winter long, being knit in bunches together, & so hanged aloft

arch-wise in manner of a vault: with others they make no more adoe, but put them vp presently as they come from the Vine, into earthen pots, whiles they be fresh & in their vigor, and afterwards they are bestowed, well lapped ouer with their leaues, in other greater vessels ouer them; and for to keep them better, they be stopt close with kernels heaped and piled vpon, sweating round about, to condite and preserue them in their naturall heat. Others they suffer to be dried in the smoke of smiths forges, wherby they get the very tast of infused wine, so ordered in the smoke. And in truth, *Tiberius Caesar* the Emperor gaue especial credit & name by his example to such grapes dried in the furnaces of Africk. For before his time, the Rhetian grapes & those that came out of the territory of Verona, were ordinarily serued vp to the table first, for the very best. As for the Raisins called Passæ, they took that name in Latine of their patience to endure their drying & confiture. Some grapes there be that are condite in Must or new wine, and so they drinke their owne liquor wherein they lie foking, without any other seething. Others againe are boiled in Must aboue said, vntill they lose their owne verdure, and become sweet and pleasant. Moreover, yee shall see old grapes hang still vpon the Vine their mother, vntill new come: but within glasse, that a man may see them easily through: howbeit, to make them to last and continue in their full strength, as well those which be preferred in barrels, tuns, and such like vessels afore said, they vse the helpe of pitch or tarre, which they poure vpon the stalks that the cluster hangs to, and wherewith they stop close the mouth of the said glasse. It is not long since that there was a deuise found, that wine of it selfe (as it came naturally from the grape growing vpon the vine) should haue a smack and sent of pitch. And surely this kind of * Pitch wine, brought the territory about Vienna into great name reputation: & before that this vine was known, those of Auern, Burgundy, and the Heluij, were in no request at all. But these deuises as touching vines & wines, were not in the daies of the Poet *Virgil*, who died about 90 yeres past. But behold what I haue to say more of the Vine tree: the vine wand is now entred into the camp, and by it our armies are ranged into battalions: nay, vpon the direction thereof depends the main estate of our soueraigne Empire: for the Centurion hath the honour to carry in his hand a Vine-rod: the good guidance and ordering whereof aduanceth after long time the centeniers (for a good reward of their valorous and faithfull seruice) from the leading of inferior bands, to the captainship of that regiment and chiefe place in the army, vnto which the maine standard of the Ægle is committed: yea, and more than that, the Vine wand chastiseth the trespasses and lighter offences of the souldiers, who take it for no dishonor nor disgrace to be thus punished at their Centurions hand. Ouer and besides, the planting of Vineyards hath taught martiall men how to approach the wals of their enemies, to giue an assault vnder a frame deuised for the purpose, which therupon took the name of Vineæ. Lastly, for medicinall vertues in phisick, the Vine is so profitable to mans health, that the vse of it alone is a sufficient remedy for the distemperature of mans body, caused by wine it selfe.

CHAP. II.

Of the diuers kinds of vines.

D*emocritus* was the onely Philosopher euer known, who made profession to reduce all the sorts and kinds of vines to a certaine number, and indeed he vaunted and made his boast that he had the knowledge of all things that were in Greece. All others besides himselfe and those comming neerer to the truth (as shal appeare more evidently by the variety of wines) resolutely haue set downe, that there be infinit sorts of Vine-trees. Look not therefore at my hands, that I should write of them all, but onely of the principall: for that in truth there bee in manner as many and as sundry kinds of them, as are of grounds. Wherefore I will content my selfe, and thinke it sufficient to shew those that be singular and most renowned among them, or such as haue some secret propriety worth admiration. And first to begin with the Aminean Vines, all the world giueth them the chiefe praise and greatest name, as wel for their grapes of so lasting and durable a nature, as for the wine made thereof, which in all places continues long in vigor, & is euer the better for the age. And hereof there be five sundry sorts, of which, the kindly Vines named Germanæ haue both lesse grapes and grains within, but they burgeon and bloom better than others: and after the floure is gone they can abide both rain and tempest, but the second kind (which is the greater) is not so hardy, howbeit, lesse subject to wind and weather

Ather when they be planted to run vp a tree, rather than to creepe vpon a frame. A third sort are called Gemellæ, for that their grapes grow double like twins: & they be very harsh and in taste vntoothsome, howbeit their vertue and strength is singular. The smaller sort of these take harm by the South wind: but all other winds nourish them, as we may see in the mount *Vesuvius*, and the little hills of *Surrentum*: for in all other parts of Italy, ye shal neuer finde them but wedded to trees, and growing vpon them. As for the fift kind of these Amminean vines, they be called Lanatæ, so freeze they are with a kind of down or cotton, in so much as we need not wonder any more at the *Seres* or *Indians* for their cotton and silken trees. The first kind of these Amminean grapes come soonest to their ripenesse and perfection, and most quickly do they rot & putrefie. Next to these Amminean vines, those of *Nomentum* are in most account: and for that their wood is red, some haue called them Rubellæ. These grapes yeeld no great plenty of wine, but in stead thereof their stones and kernels, and other refuse remaining, grow to an exceeding big cake: howbeit, this property they haue. The frost they will endure passing well, lesse harme they take also by raine than drought, and thriue better in cold than heat: and therefore in cold and moist grounds they excell and haue no fellow. Of these vines, they are more plentifull which beare grapes with smaller stones, and leaues with lesse cuts and iags indented. As touching the Muscadell vines, *Apianæ*, they tooke that name of bees, which are so much delighted in them and desirous to settle and feed of them. Of two sorts they are: and both carry cotton & down. Howbeit, this difference is between them, that the grapes of the one will be sooner ripe than the other, and yet there is neither of them both but be hasty enough. These Muscadell grapes like wel and loue cold countries: and yet none sooner rot than they, if showres take them. The muscadell wines are at the first sweet: but with age become harsh and hard, yea, and red withal. And to conclude, there is not a grape that ioies more to hang vpon the vine, than it doth. Thus much of the very floure of Vines, and the principall grapes that be familiar and proper vnto our country of Italy, as their native soile.

The rest be strangers come out of *Chios* or *Thasos*. As for the Greeke grapes of *Corinth*, they be not in goodnes inferior to the Aminean afore said. They haue a very tender stone within: and the grape it selfe is so small, that vnlesse the soile be exceeding fat and battell, there is no profit in planting and tending such vines. The quick-sets of the vine *Eugenia* were sent vnto vs from the *Taurominitane* hills in *Sicily*, together with their syname pretending a noble & gentle race. Howbeit, they are neuer in their kind with vs, but only in the *Alban* country: for if you transplant them, they proue very bastards and changelings presently. And in faith, some vines there be that take such an affection and loue to a place, that all their goodnesse and excellency they will leaue there behind them, and neuer passe into another quarter whole and entire as they be in their own nature. Which evidently is to be seen in the Rhetian vine, & that of *Savoy* and *Daulphine*, of which in the chapter before wee said, that it gaue the taste of pitch to the wine made thereof: for, these Vines at home in those countries are much renowned for the said tast: but elsewhere if they be transplanted, they loose it whole, and no such thing may a man acknowledge in them. Howbeit, plentifull such are, and for default of goodnesse, they make amends & recompence in abundance of wine that they yeeld. As for the vine *Eugenia*, it takes well in hot grounds. The Rhetian likes better in a temperat soile. The *Allobrogian* Vine of *Sauoy* and *Daulphine* delights most in cold quarters: the frost it is that ripens her grapes, and commonly they are of colour black. Of all the grapes aboue rehearsed, the wines that be made, the longer they be kept, the more they change colour, and in the end become white, yea, though they came of blacke grapes, and were of a deep colour at first. Now for all other grapes whatsoeuer, they are reckoned but base in comparison of the former. And yet this is to be noted and obserued, that the temperature of the aire may be such, and the soile so good, that both the grapes will endure long, and the wine beare the age very well. As for example, the Vine *Fecenia*, and likewise *Biturica*, that bloometh with it, which beare grapes with few stones within: their floures neuer miscarry, for they euer preuent and come so timely, that they be able to withstand both winde and weather. Howbeit, they do better in cold places than in hot: in moist also, than in dry. And to say a truth, there is not a vine more fruitful, & yeelding such store of grapes growing so thick together in clusters: but of all things it may not away with variable and inconstant weather: let the season be staied and settled, it matters not then whether it be hot or cold, for wel it wil abide the one & the other alone, hold it neuer so long. The lesser of this kind is held for the better.

Howbeit

Howbeit, in chusing of a fit soile for this vine, it is much ado to please and content it: in a fat ground it soone rots; in a light and lean, it will not grow at all: very choise it is therefore, dain- G
ry, and nice, in seeking a middle temper betweene, and therefore it taketh a great liking to the Sabine hills, and there it loues to be. The grapes that it bears, be not so beautiful to the eie, but pleasant to the tooth: if you make not the more hast to take them presently when they be ripe, they will fall off, although they be not rotten. This vine puts forth large and hard leaues, which defend the grapes well against haile-stones.

Now there are besides certain notable grapes of a middle colour between black and purple, and they alter their hue oftentimes; whereupon some haue named them *Varianæ*: and yet the blacker they be, the more they are set by: they beare grapes but each other yeare, (that is to say, this yere in great plenty, the next yere very little: howbeit, their wine is the better when they yeeld fewer grapes. Also there be 2 kinds of vines called *Pretia*, differing one from the other in the bignesse of the stones within the grape: full of wood and branches they are both: their grapes are very good to be preferred in earthen pots: and leaved they be like to *Smallach*: they of *Dyrrhachium* do highly praise the Roial vine *Basilica*, which the *Spaniards* call *Cocolobis*. The grapes grow but thin vpon this plant: they can well abide all South winds, and hot weather: they trouble and hurt the head, if a man eat much of them. In *Spaine* they make 2 kinds of them; the one hauing a long stone or grain within, the other a round: these be the last grapes that are gathered in time of vintage. The sweeter grape that the *Cocolobis* bears, the better is it thought: howbeit that which was hard and tart at the first, will turne to be pleasant with keeping; and that which was sweet, will become harsh with age: and then they resemble in tast, the *Albane* wine: and men say, there is an excellent drinke made thereof, to help diseases and infirmities of the bladder. As touching the wine *Albuelis*, it bears most grapes in the tops of trees, but *Vifula* is more fruitfull beneath toward the root: and therefore if they be set both vnder one and the same tree, a man shall see the diuersitie of their nature, and how they will furnish and enrich that tree from the head to the foot. There is a kind of blacke grape named *Inerticula*, as a man would say, dull and harmlesse; but they that so called it, might more iustly haue named it *The sober grape*: the wine made thereof is very commendable when it is old, howbeit nothing hurtfull* for neuer makes it any man drunke: and this property hath it alone by it selfe. As for other vines, their fruitfulness doth commend them; and namely about all, that which is called *Heluenaca*; whereof be two kinds; the greater, which some name *The long*; and the smaller called *Arca*: not so plentiful! it is as the former, but surely the wine thereof goes downe the throat more merrily. It differs from the other in the perfect and exquisite roundnesse of the leafe, as it were drawn by compasse: but both the one and the other is very slender, and therefore of necessitie they must be vnderpropped with forkes, for otherwise they will not beare their owne burden, so fruitfull they be. They delight greatly to grow neare the sea-side, where they may haue the vapors of the sea to breath vpon them: and indeed their very grapes haue a sent and smell of a brackish dew. There is not a vine can worfe brooke *Italy*. Her grapes are small, they hang thin and rot euen vpon her: and the wine made thereof, will not last above one Summer: and yet on the other side there is not a vine that liketh better in an hungry and lean ground. *Gracinus* (who otherwise compiled his worke out of *Cornelius Celsus* in manner word for word) is of this opinion, That this Vine could loue *Italy* well enough, and that of the owne Nature it mislikes not the Countrey; but the cause why it thriueth no better there, is the want of skil and knowledge to order and husband it as it ought to be; for that men strue to ouercharge it with wood, and load it with too many branches: and were it not that the goodnesse of a fat and rich soile maintained it still, beginning to faint and decay, the fruitfulness thereof were enough to kill it. This vine (by report) is never blasted: a singular gift verily of Nature, if it be true, That any plant or tree should be so exempt from the jurisdiction (as it were) of the Heauens, that they had no power to doe it harme. The Vine *Spionia*, which some call *Spinea*, feareth no extremity of heat: her grapes prosper well in Autumne and much abundance of rain: This is the only grape that is nourished with foggie mists, and therefore it likes no place well but the territorie of *Rauenna*. The vine *Venacula* (which is counted one of the best for kindly blooming & shedding the floures, and for grapes most meet to be preferred and kept in pots) the *Campanes* rather name *Sirculus*, others *Stacula*: and they of *Tarracina* call it *Numifiana*: and as they say, the grape thereof hath no singularity nor vertue in it self, but only according to the soile where it

A if groweth: howbeit, those that grow about *Surrentum*, haue the most strength, and are excellent to be preferred in vessels; I mean, as far as vp to the hill *Vesuvius*: for there also is the vine *Murgentina*, the best of all those that come out of *Sicily*, which some call *Pompeiana*, of *Pompeii*, a town within the kingdome of *Naples*: & being got once into *Larium*, it beares grapes abundantly: like as the vine *Horconia* in *Campaine*, yeeldeth plenty of grapes with the best, but good they are for nothing save onely to be eaten at the table. As for the grape *Martica*, it will last and indure a long time; it feareth neither wind nor tempest, nor any blait of planet: blacke it is, and hath black stones; howbeit the wine that it maketh, waxes red with age, namely, if it be long kept.

B of the grapes which grow about the hill Vesuvius, the best is the vine Murgentina, the best of all those that come out of Sicily, which some call Pompeiana, of Pompeii, a town within the kingdome of Naples: & being got once into Larium, it beares grapes abundantly: like as the vine Horconia in Campaine, yeeldeth plenty of grapes with the best, but good they are for nothing save onely to be eaten at the table. As for the grape Martica, it will last and indure a long time; it feareth neither wind nor tempest, nor any blait of planet: blacke it is, and hath black stones; howbeit the wine that it maketh, waxes red with age, namely, if it be long kept.

CHAP. III.

Of the grapes which grow about the hill Vesuvius, the best is the vine Murgentina, the best of all those that come out of Sicily, which some call Pompeiana, of Pompeii, a town within the kingdome of Naples: & being got once into Larium, it beares grapes abundantly: like as the vine Horconia in Campaine, yeeldeth plenty of grapes with the best, but good they are for nothing save onely to be eaten at the table. As for the grape Martica, it will last and indure a long time; it feareth neither wind nor tempest, nor any blait of planet: blacke it is, and hath black stones; howbeit the wine that it maketh, waxes red with age, namely, if it be long kept.

Hitherto we haue treated of the sundry sorts of vines in general: now wil we write of them according to the nature of the places and regions, which are proper and familiar vnto them; or, as they be mingled one with another, by transplanting or grafting. And first of most, the vine *Iudernis*; also *Florentia* (bearing the name of the city *Florence*) are peculiar to the *Tuscans*: but about *Aretium*, there is no talk both for plenty and goodnesse, but of the *Talpina*, *Etesia*, and *Consennia*. The *Talpina* grape is blacke as the *Mouldwarpe*, whereof it taketh the name, but yet doth it yeeld a white wine. The *Etesia* vine (so called of the wine *Etesia*) is a deceitfull plant, and often misseeth and faulterh; but the more grapes it beareth, the better wine it yeeldeth and more commendable: many this is strange and wonderful in it. In the mids of this fruitfulness of hers, she giueth ouer suddenly and dieth. The vine *Consennia*, bringeth blacke grapes: the wine will not last, but the grapes will keepe and continue passing long: the vintage thereof is fifteene daies after all other: it beareth ordinarily her full burden, but the fruit is onely good for meat to be eaten, and not for wine to be drunke. The leaues of this vine (in manner of the wilde vine *Labrusca*) before they fall, become as red as blood. This property happeneth to some others besides; but take it for a certaine token of the worst vines. The vine and grape *Irtiola*, is proper vnto *Vmbria*, to the territorie of the *Meuenates*, and the *Picene* countrey: like as that which they call *Pumula*, to the *Amiterne* region. They haue among them also another kinde, named *Bannanica*: and although it oftentimes doth not take, yet they loue the plant and cherish it. There is a grape which they call the *Borough* or *Burgoeis* grape, after the name of the burrough town *Pompeii*; and yet there is more plenty of them about the city *Clusium*: the *Tiburtins* also, named their grapes after their town *Tybur*: yet of late daies they haue found another sort, which of the resemblance of olives, is called the *Oliue* grape: and in truth, this is the last grape of any account, to this day known to haue bin found out. The *Sabins* and *Laurentines* only are acquainted with the grape *Vinaciola*: for wel I wot, that the vines *Gaurana* came first out of the territory of *Falerij*, and thereupon were named *Faleria*: but transplant them from thence whithersoever you will, they wil very quickly degenerat in all places, and proue bastard. Moreover, some haue made a feuerall kind by it self of the *Tarentine* vine, which brings forth an exceeding sweet grape. As for the grapes called *Capnias*, *Buconatis*, & *Tarrupia*, there is no vintage of them in the vineyards of the hills about *Thurinum*, before the cold frost. As for the citizens of *Pise*, they set great store by the grapes *Pharica*: like as *Modenna* by those called *Prusina*; which are very black stone & altyer the wine thereof with 4 yeres wil turn to a paller and whitish colour. A strange thing it is which men report of a certaine grape, that euermore will turne with the Sunne: and thereupon it is called *Streptos*: as also that we in *Italy* are delighted with the *French* grapes: and they in *France* beyond the *Alpes*, are as much in loue with ours in the *Picene* countrey. *Virgil* hath made mention of other grapes, namely, *Thasia*, *Mareotides*, and *Lagea*, besides many other outlandish plants, not at this day to be found throughout all *Italy*: howbeit there be yet many vines of good mark & wel accepted of, not for any wine that they yeeld, but only for their grapes which they carry to wit, *Ambrosiaca*, and *Duracina*, which may be kept hanging still vpon the vine, without any vessell to inclose them: so durable be they and hardy, against cold, heat, wind, and raine, or any weather whatsoeuer. As for the vine *Orthampelos*, it needs neither tree to climb on, nor

forkes to support it, but is able to maintain and vphold it selfe vpright. But the *Dactylides* (so called for that they beare not wood about a finger thicke) cannot so do: for they must be shored and underpropped. Of all vines, the *Columbines* yeeld most gleaning, for that the gatherers leaue behind them greates store of small grapes: and so do the purple grapes, named also *Bimammia* (as one would say, with two teats or bigs) more than the rest; seeing that they beare not small grapes, but put forth new great ones indeed, after the other be gathered and gone. In like manner, the vine *Tripedanea*, which took that name of the measure of 3 foot. Semblably the vine *Scirpula*, the grapes whereof seem as if they were *Raisins* of the sun, dried already. Moreover in the maritime Alps toward the sea-side, there is a kind of *Rhetian* vine, but far inferior to that other about-mentioned and so much commended for the relish of pitch that it giueth to the wine made of her grapes: for these about the Alps be little and small, and albeit they beare grapes thick, yet the wine thereof comes far short of the other, and is more degenerat: howbeit the skin of the grapes is of all other the thinnest, hauing but one kernel within, which they call *Gigarton*, and the same very small; and a man shall not find a bunch, without one or two passing great grapes about the rest: there is also a kind of black *Aminean* grape, which some name *Syriaca*: likewise the grape of Spain, which of the base and common kinds carries the greates credit, and is most commended. As touching both vines and grapes that run and traile vpon frames, there be those which are called *Escaria*, good only for to eat, and namely those which haue grains or stones like to *Ivie* berries, as well white as black. Grapes resembling great dugs, named thereupon *Bumasti*, both black and white, are carried vpon frames in like sort. But al this while we haue not spoken of the *Egyptian* and *Rhodian* grapes, ne yet of the *Ounce*-grapes, whereof euery one weighes a good ounce, and thereupon tooke that name. Item, the grape *Pucina*, the blackest of all others: the *Stephanitis* also, wherein Nature hath seemed to disport her selfe, for the leaues run among the grapes in manner of a garland plaited with them. Moreover, the market-grapes called *Forenses*, they grow and are ripe with the soonest, vendible at the very first sight, and sold with the best, and most easie to be carried from market to market. But contrariwise, the ash-coloured grape *Cinerea*, the silk-russet grape *Ravuscula*, the asse-hued grape *Afinica*, please not the eie, but are presently reiected: and yet the Fox-tailed grape *Alopecis*, (for that it resembles *Rainards* taile) is not so displeasing nor so much discommended as the former. About a cape or crest of the hill *Ida*, which they call *Phalacra*, there is a vine named *Alexandrina*, smal of growth, and puts forth branches of a cubit in length: the grapes be black, as big as beans; the pepin or kernell within, soft, tender, and exceeding small; the bunches are crooked, full of grapes, passing sweet; and finally the leaues little, round, and not cur or jagged at all. Within these seuen yeres last past, about *Alba Eluia*, a city in *Languedock* or the prouince of *Narbon*, there was found a vine, which in one day both floured and shed her floures: by which meanes most secured it was from all dangers of the weather. They call it *Narbonica*, or the vine of *Languedock*: and now it is commonly planted all that prouince ouer, and euery man desireth to store his vineyard therewith.

CHAP. IIII.

¶ Notable considerations about the husbandrie and ordering of Vineyards.

That noble and worthy *Cato*, the first of that name, renowned among other dignities for his honorable triumph, and the incorrupt administration of his Censorship, and yet more famous and renowned to posterity for his singular knowledge and learning: and namely for the good precepts and ordinances tending to all virtues and commendable parts, which he left in memory for the people of *Rome*: & principally touching agriculture [as he was by the common voice and generall accord of that age wherein he liued reputed for an excellent husbandman, and one who in that profession had neither peere nor second that came neere vnto him.] This *Cato* (I say) hath in his workes made mention but of a few kinds of vines: and yet some of them already be growne out of knowledge, so as their verie names are quite forgotten. Yet neuertheless his opinion and judgement would be set downe in particular, as it may be gathered out of his whole treatise: to the end that we might both know in euery kind of vine which were of most account in his daies (to wit, in the 600 yere after the foundation of *Rome*, about

A the time that *Carthage* and *Corinth* were forced and woon, when he departed this life:) and also learn how much we haue profited and proceeded in good husbandry and agriculture, from his death vnto this present day, namely for the space of 230 yeres. As concerning vines and grapes therefore, thus much hath *Cato* deliuered in writing, and in this manner following. All places or grounds (quoth he) exposed to the Sun-shine, and which in other regards shall be found good for to plant vineyards in, see they bee employed for the lesse *Aminean*, for both the *Eugenian* Vines, and the smaller *Heluine*. Item, In euery tract that is more grosse, thicke, and mistie, looke that you set the greater *Aminean*, or the *Murgentine*: the *Apician* also, and the *Lucane* Vine. All other vines, and the common mingled sort especially, will agree well enough with any ground. The right keeping of grapes, is in a small thimbe wine of the second running. The grapes *Duracina*, and the greater *Amineans*, are good to be hanged, or else dried before a blacke smithes forge, and so they may be well preserved and good for *Raisins* of the Sun. Loe what the precepts of *Cato* be; neither are there any of this argument more ancient, left vnto vs written in the Latine tongue. Whereby we may see, that we liue not long after the very first rudiments and beginnings of knowledge in these matters. [But by the way, the *Amineans* last named, *Varro* calleth *Scantians*.] And in very truth, few there be euen in this our age, who haue left any rules in forme of Art, as touching the absolute skill in this behalfe. Yet such as they be, and how few foeuer, we must not leaue them behinde, but so much the rather take them with vs; to the end it may be knowne, what reward & profit they met with, who trauelled in this point of husbandry: reward, I say, and profit, which in euery thing is all in all.

C To begin therefore with *Acilius Stenelus* [or *Stelenus*,] (a mean commoner of *Rome*, descended from the race of *Libertines* or *Slaues* newly enfranchised) he attained to the highest glory and greates name of all others: for hauing in the whole world not about 60 acres of land lying all in vineyards within the territory of *Nomentum*, he plaied the good husband so well therein, that he sold them again at the price of 400000 *Sesterces*. There went a great bruit and fame likewise of one *Verulenus Aegialus*, in his time a man but of base condition by birth, and no better than the former, (namely, come of the stocke of freed-men) who by his labor & husbandry, greatly enriched a domain or liuing at *Literum* in *Campaine*: and the more renowned he was by occasion of the fauour of so many men affectionate vnto *Africanus*, whose very place of exile he held in his hands and occupied so well: for vnto *Scipio*, the abovesaid *Literum*, appointed. But the greates voice and speech of men was of *Rhemnius Palamon* (who otherwise by profession was a famous and renowned Grammarian) for that he by the means and helpe of the foresaid *Stenelus*, bought a ferme within these twenty yeres for 600000 *Sesterces* in the same territorie of *Nomentum*, about ten miles distant from *Rome*, lying somewhat out of the highway. Now is it well knowne farre and neare, of what price and account all such fermes are, and how cheape such ware is lying so neere to the city side: but amongst the rest, this of *Palamons* in that place was esteemed most cheap and lowest prised, in this regard especially, That he had purchased those lands, which through the carelesnesse & bad husbandry of the former owners, lay neglected and fore-let, & were not of themselves thought to be of the best soile, chosen and piked from among the worst. But being entred once vpon those grounds as his owne liuelode and possession, he set in hand to husband and manure them, not so much of any good mind and affection that he had to imroue and better any thing that he held, but vpon a vaine glory of his own at the first, whereunto he was wonderously giuen: for he makes fallows of his vine-plots anew, and delueth them all ouer again, as he had seen *Stenelus* to do with his before: but what with digging, stirring, and medling therewith, following the good example and husbandry of *Stenelus*, hee brought his vineyards to so good a passe within one eight yeres, that the fruit of one yeres vintage was held at 400000 *Sesterces*, and yeelded so much rent to the lord: a wonderfull and miraculous thing, that a ground should be so much imroued in so small a time! And in very truth, it was strange to see what numbers of people would run thither, onely to see the huge and mighty heaps of grapes gathered in those vineyards of his: and ill idle neighbors about him, whose grounds yeelded no, such increase, attributed all to his deepe learning, and that he went to it by his book, & had some hidden speculation about other men; objecting against him, that he practised Art Magicke, and the blacke Science. But last of all, *Anneas Seneca*, esteemed in those daies a singular clerke, and a mighty great man (whose ouermuch Learning and exceeding power cost him his ouerthrowing in the end) one who had good skill and

therof. But the Fauſtian vineyards lie about 4 miles from a village nere Cediz, which village G is from Sinueſſa ſix miles diſtant. And to ſay a truth, this Fauſtian wine is inferior to none in reputation ſo piercing and quicke it is, that it will burne of a light flame; a propertie that you ſhall not ſee in any other wine: Three ſorts there be of theſe Falerne wines: the firſt be hard and harſh; the ſecond ſweet and pleaſant; the third, thin and ſmall. But ſome haue diſtinguiſhed them in this wiſe: thoſe that come from the top of the hills, be called Gaurane wines; from the mids, Fauſtian; and laſt of all from the bottom and foot thereof, the Falerne. But by the way this would not be forgotten; That the grapes whereof be made theſe wines ſo ſingular and excellent, are nothing pleaſant to the taſt for to be eaten. As touching the Albane wines from about Alba nere the city of Rome, they reach to the third ranke in goodneſſe, for a certain varietie they haue in their taſt: ſweetiſh they be, and yet otherwhiles they haue an vnripe & harſh H reſſiſh of the wood, & taſt like the hedge-wine. In like maner the wines of Surrentum, & namely thoſe of grapes growing only in vineyards, are excellent good for weak perſons that be newly recovered of ſickneſſe; ſo ſmall they are, and wholeſome withal. And in truth, *Tyberius Caſar* was wont to ſay, That the Phyſitians had laid their heads together, and agreed to giue the Surrentine wine ſo great a name; for otherwiſe it was no better than a very mild and pleaſant vineger: and *C. Caligula* (his ſucceſſor in the Empire) uſed to ſay of it, That for a wine that had loſt the heart and was a going, it was very good. The Maſſike wines, which come from the Gaurane hills looking toward Putcoli and Bajæ, come nothing behind the reſt, but ſtrive to match them euery way. For as touching the Statane vineyards, that confine and border vpon the Falerne, I their wines doubtleſſe are now come to be the principall and chiefe of all the reſt: whereby it is evidently ſeen, that euery territory and vine-plot hath their times and ſeaſons, like as all other things in the world, one while riſe and another while fall. For in times paſt the Calene wines made of the grapes growing hard by Rome, were wont to go before all others: as alſo the Fundane vines had their time, as well thoſe that are planted in vineyards, as they which runne vpon trees: like as thoſe of the other ſide, nere alſo to the city of Rome, & namely from Veliternum and Priuernum. For as touching the wine of Signia, it is held for a medicine only; and by reaſon of an aſtringent verdure that it hath, it is excellent good to ſtay the flux of the belly. In the fourth place of this race of vines, *Iulius Caſar* (late Emperor of famous memory) hath ranked, (for to ſerue the publick and ſolemne feaſts of the city) the Mamertine wines, from about Meſſana in Sicily: for he was the firſt (as appears by his letters miſſiue) that gaue credit and authority vnto them. And of theſe, the Porulane wines: (ſo called of them who firſt planted the vines whereof they came) are moſt commended, and namely thoſe that are vpon the next coaſt of Italy. Within the ſame Sicily, the Taurominitane vines are highly eſteemed, inſomuch, as many times they go for Meſſana wine, and are ſo ſold by whole pottles. Now for all other wines from about the coaſt of the Tuſcane ſea Northward, good reckoning is made of the Præſutian and ſuch as come from Ancone: alſo of the Palmeſian wines, which haply tooke that name, for that the firſt plant of that vine came from a palme or Date tree. But in the midland parts of Italie within the firme land, good regard there is of the Cefenatian and Mecanatian wines. Within the territory of Verona, the Rherian wine carrieth the price: which *Virgill* ranged next after the Falerne wines. Anon you come to the wines Adriane, and thoſe that grow far within the tract of the Venice gulfe. Now from the nether ſea about Lions, ye haue the Latinienſian, the Grauiſcane, and the Statonian wines. Throughout all Tuſcany, the wines about Luna beare the name: like as thoſe of Genes, for Liguria. Betweene the Pyrenean hills and the Alpes, Maſſiles hath the commendation for wines of a double taſte: for the vines there, do yeeld a certain thick and groſſe wine, which they call Succoſum, [i. full of iuice and liquor] good to ſeaſon other wines, and to giue them a pretie taſt. When ye are paſſed once into France or Gaule, the wine of Bererra is in chiefe requeſt. As for the reſt within Languedoc and the Prouince of Narbon, I am not able to auouch any thing for certainty, ſuch a brewing and ſophiſtication of them in ſome herbes and drugs among, that be not good for mans body. For certaine it is that they commonly buy Aloe to giue the wine both another taſt and alſo a counterſeit color. Moreover in the farther and more remote coaſts of Italy toward the Auſonian ſea, there be wines which are not without their praife and commendation, and namely thoſe of Tarentum, Serutium, and Conſentia: likewise of Tempſa, Bauia, and Lucania: howbeit the Thurine wine goeth before

A fore them all. As for the wines of Lagaria, which be made of the grapes not farre from Grumentum, there goes a right great name of them, by reaſon that *Meſſala* uſed ordinarily to drinke theſe, and thereby was ſuppoſed to preſerue his health ſo well. Of late daies there be certaine wines in Campanie growne into credit (like as they haue gotten new names) by good ordering and husbandrie, or by chance: I know not whether, namely, thoſe of Tribellia, foure miles from Naples, of Caudium nere to Capua: and laſt of all, the Tribulaine wines within their own territory: for before time they were neuer counted no better than common wines for euery man to drinke, no more than the Priſolides, from whence they vaunt of their deſcent. As for the wine of Pompeij, it is ſold in the kingdome of Naples, neither it nor the vine whereof it commeth, will laſt about ten yeeres at the moſt: after which teareme, the elder they both be, the worſe they are. Besides, they are ſound by experience to cauſe the head-ach, inſomuch, as if a man drinke thereof ouer night, he ſhall be ſure not to haue his head in good tune vntill noone the morrow after: by which examples aboue rehearſed, it is plaine in my conceit, that the goodneſſe of the wine ſtandeth much vpon the ſoile and the climate, and not in the grape: ſo as a needleſſe and endleſſe matter it is to reduce all kind of wines to a certaine number, conſidering that one and the ſelfe ſame Vine planted in diuerſe places, hath ſundry operations, and maketh varietie of wines. Now as concerning the wines of Spaine, the Laletane vineyards are much ſpoken of for the plentie and abundance of wine that they yeeld: but thoſe of Tarracon, Arragon, and Laurone, are much praïſed and renowned for the fine and neat wines which they make. As for the wines that come out of the Iſlands, and namely, the Baleares, they are comparable to the very beſt in Italie.

C But I am not ignorant, that moſt men who ſhall read this Treatiſe, will thinke that I haue omitted and ouerpaſſed many wines: for euery man likes his own, and as ones fancie leadeth, ſo goes the voice and the cry, and there runs the Hare away. It is reported, that one of *Augustus Caſars* freed men (reported for the fineſt taſter that he had about his court, and who knew beſt what would content his palat, and pleaſe his tooth) vpon a time when he taſted the wine that was for the Emperors board, at what time as he made a feaſt, ſaid to one of the gueſts at the table, That the ſaid new wine indeed had a new and ſtrange taſt, and was none of the beſt, and thoſe that were in name, howbeit (quoth he) this is for the Emperors cup, and willingly will he drinke of no other, howwithſtanding it be but a homely wine made hereby in the country, and not far ſetled. And now for a finall concluſion of this matter, I cannot denie but that there be other wines which deſerue to be numbred among thoſe that are right good and commendable, howbeit, ſuffice it ſhall to haue written of theſe, which by the common opinion and conſent of the world are held for the better.

CHAP. VII.

Of Wines beyond ſea.

I remaineth now to ſpeake of outlandiſh Wines beyond the ſea. Firſt and formeſt therefore next to thoſe wines renowned by the Poet *Homer*, and whereof we haue written before, beſt E eſteemed alwaies were the wines of the Iſlands Thafos and Chios: and namely that of Chios which they call Aruſum or Aruſium. *Erallſtratus* the moſt famous Phyſician of his time, matched with theſe the Lesbian wine, and his authoritie gaue credite vnto it: and this was much about the ſix hundred yeare after the foundation of Rome. But in theſe daies there is no wine to that of Clazomenæ, ever ſince that they began to put thereto leſſe ſea-water for to ſeaſon it, than their cuſtome was. As for the wine of Lesbos, it hath a ſent and reliſh of the ſalt water naturally of it ſelfe. Neither is the wine that comes from the hil Tmolus in any regard, as a wine to be drinke alone, but it ſerues as a ſweet cuit to mingle wiith other wines that be hard: for thereby their Greene verdure will ſeeme more mild and pleaſant, yea, and withall to haue their ripe age: for no ſooner is it tempered therewith, but they taſt preſently elder than they be. Next to theſe in goodnes, follow in their courſe the wines of Sycione, Cypres, Telmeſſus, Tripolis, Berytus, Tyrus, and Sebennys. As for this wine laſt rehearſed, it is made in Egypt, a country much renowned for three kinds of grapes there, to wit, Thafia, Ethalos, and Peuce. Next in price & account be theſe following, the Hippodomantian, the Myſtick, Cantharite, & the Gnidian wine of the firſt running and vnpreſſed, alſo that of Cataceaumene, a region ſo called, for that it ſeemeth

meth all burnt; of Petra, and Mycone. As for the wine Messogias, it is knowne to make head-ach: neither is the wine of Ephesus wholesome and healthfull, because it is sophisticated with a kind of cuitt halt foddren, called Desfrutum, and sea-water. As for the wine of Apamea, by report it comes very neare to a kind of Mede, and will very well agree with all likeas. *Prætorium* in Italy. For otherwise, this is the property in generall of all sweet wines, that they will not well sort together, & be good still. Touching the wine Protogium, it is now grown out of remembrance: and yet the Physicians of *Aselepiades* his sect and schoole, gaue praise vnto it next the Italian wines. The learned Physician *Apollodorus*, in his treatise that he compiled of good wines, which he recommended vnto King *Ptolomæus* for to drinke, as meet for the health of his person, & for default of Italian wines then vnknown, highly praised the wines in Pontus, & principally that which is called *Naspercenites*: next to it the Orceotik, the Oenætes, that of *Leucadia*, of *Ambracia*; and (which he preferreth aboue all the rest) the wine of *Papirethus*; and yet he said, that there went the lesse name and opinion of it, because after sixe yeares it loseth the strength and pleasant tast that it had.

CHAP. VIII.

Seven kinds of salt wine.

Thus far forth haue we discoursed of the very floure of good wines, according to the regions where naturally they come of the grape. Now are we to treat of wines compounded. And first, among such wines is that, which they call *Biaxon* (an inuention of the Greeks) which aboue all others is most esteemed; and great reason, for devised it was, for the cure of many maladies, as we shall shew hereafter in our treatise of Physick. The making wherof is in this manner: Take grapes gathered somewhat before they be ripe: let them lie to drie and parch in the hot Sunne for three daies, and be turned duly thrice a day; upon the fourth day, presse them forth for wine, put the liquor vp in barrells, and so let it worke in the Sun. Howbeit, hereto they put a good quantity of salt sea-water. But this deuise was leard first of a false theuifish knaue who, hauing robbed his maister and drunk vp a good deale of his wine, filled vp the vessel again and made iust measure with sea-water. White wine if it be ordered in this sort, is called *Leucochrum* by the Greeks; but in other nations the like wine so made is named *Tethalassemonon*. As for *Thalassites*, it is a kind of wine so called, for that the vessels when the wine is new turned, be cast into the sea, and there let it remaine for a time, by which means the wine will soon seeme old and readie to be drunke. Furthermore, *Cato* also here among vs hath shewed the way how to make the Greekish Wine *Coum*, of our owne Italian Wine: but aboue all he hath set down an expresse rule, to let it first take the maturitie and perfection 4 yeares in the Sun. As for the wine of *Rhodes*, it is much like to that of *Coos*. But the *Phorinean* wine is more salt than the wine of the Isle *Coos*. Finally, all transmarine or beyond-sea wines are thought in seuen or fix yeares at the least, to come vnto their middle age.

CHAP. IX.

Fourteene sorts of sweet wines.

Alwaies the sweeter that they be in tast, the lesse fragrant & odoriferous they be: the thinner and smaller that they be, the more euer they smell to the nose. Of wines there be four principall colours, white, yellow, red, and blacke. As for *Plythium* and *Melampythium*, they be certaine kinds of cuitt, hauing a feuerall tast apart by themselves, not resembling wine indeed. And for *Cicibelites* made in *Galatia*, it tast alwaies like new wine: so doth *Halynitum* in *Sicily*. For as touching *Syreum*, which some call *Hepsema*, & we in Latine *Sapa*, [i. Cuitt] it is a meer artificiall thing, the deuise of mans wit, and no worke of Nature: namely, when new wine is foddren away a third part: for when it boiles to the halfe, we then call it *Desfrutum*. And in very deed; all these be inuentions to sophisticate and counterfeite hpnie. But those beforenamed retain the naturall tast of the grape and the foile whereof they doe consist. Next to these cuitt-wines of *Candie*; those of *Cilicia*, *Africk*, *Italy*, and the prouinces confronting therupon, are held for the best. Certain it is, That they be made of one grape, which the Greekes call *Strica*, and we *Apiana*, [i. the Muscadell] and of another named *Scirpula*: the which haue been suffered

A fered a long time to hang in the Sunne vpon the Vine vntill they be scorched and parched: or else ouer the vapor of scalding oile. Some there be that make them of any sweet grapes whatsoeuer, so that they be let to concoct before in the Sun, vntill they be white and drie, so farre forth, as little lesse than half of their weight be consumed: which done, they stamp them and so gently presse them. Then looke how much liquor they haue pressed forth, so much pit water they put to the cake that is pressed, that thereof they may haue a cuitt of a second running. But they that be more curious & take vpon them to make a daintier cuitt, dry the grapes in maner aforesaid, but they take forth the stones and graines within: they strip them also from the steeles and taitles that they hung by: and so after they be well drenched and infused in some excellent wine vntill they be swelled and plumpe, they presse them. And certainly this fashion is simply the best of all others. Put to the cake thereof, water as before, and after the same manner yee shall haue a cuitt of a second sort. Now there is a kind of wine which the Greeks call *Aigleuces*, that is to say, alwaies sweet like new wine, of a middle nature between the common simple wine and the sweet: and this commeth not vnto it by kind, but by heed taken in the boiling; for it is not suffered to seeth and worke: and this is the term, whereby is signified the alteration of new Must into wine. To hinder therefore that it work not, (as naturally it will) they haue no sooner tunned or filled it out of the Vat, but immediately they dousse the vessels full of new Must in the water, and let them there continue till mid-December be past, and that the weather be settled to frost and cold, and likewise the time expired of the working within the said vessels. Moreover, there is another kind of wine naturally sweet, which in *Prouance* and *Languedoc* is called *Dulce*, [i. sweet] & namely, in the territorie of the *Vocontians*. For this purpose they let the grapes hang a long while vpon the Vine, but first they wryth the Steele that the bunch hangs to. Some make incision into the very Vine branch, as far as to the pith and marrow within (to diuert the moisture that feeds the grape): others lay the clusters a drying vpon tile-houses: and all this is done with the grapes of the Vine *Heluenaca*. There be that range in a ranke of these sweet wines, that which they call *Diacyton*. For which effect, they drie the grapes against the Sun (howbeit in a place well enclosed) for 7 daies together, vpon hardles, 7 foot likewise from the ground: in the night season they saue them from all dewes, and so on the eighth day they tread them in the wine presse: and thus they draw forth a wine of an excellent sauer and tast both. A kind of these sweet wines, is that which they name *Melitites*, [in manner of a *Braget*, *Meade*, or *Metheglin*.] Howbeit, different it is from the mead or honied wine which the Latines call *Mulsun*, made of old wine that is hard, and a little honie: whereas the foresaid *Melitites* consists of 5 gallons of new tart wine still in the verdure, whereto is added one gallon of honie, and a *cyath of salt, and so boiled all together. But I must not forget to place among these sundry kinds of drinke, the liquor *Prorropum*, for so some call new wine running it self from the grapes, before they be troden and pressed. But to haue this good, and so to serue the turne, so soon as it is put vp into proper vessels for the purpose, it must be suffered to worke: and afterwards to reboile and work againe for fortie daies space the Summer following, euen from the very beginning of the dog daies, and so forwards.

CHAP. X.

Of weake and second Wines, three kinds.

The second wines, which the Greeks call *Deuteria*, *Cato* and we Romans name *Lora* cannot properly and truly be called Wines, being made of the skins and seeds of grapes steeped in water: howbeit, reckoned they are among course household wines for the hines and meime to drinke. And three kinds there be of them. For sometime to the tenth part of the new wine that hath bene pressed out, they put the like quantity of water, and suffer the foresaid refuse of the grapes to soke therein a day and a night: which done, they presse it forth againe. A second sort there is, which the Greeks were wont to make in this manner: They take a third part of water in proportion of the wine that was pressed forth, and after a second pressing, they leech it to the waisting of the third part. The third is that which is pressed out of the wine lees, and this *Cato* calls *Phœcatum*, [i. Wine of lees.] But none of these wines or drinks will endure aboue one yeare.

CHAP. XI.

¶ *What neat wines began of late to be in request in Italie.*

IN this treatise of wines I cannot omit this obseruation: That whereas all the good wines, properly so called and known in the whole world, may be reduced in fourscore kinds or thereabouts, two parts of three in this number, may well be counted wines of Italie: which in this regard farre surpasseth all other nations. And hereupon ariseth another thing more deeply to be noted, That these good wines were not so ripe nor in such credit from the beginning, as now they be.

CHAP. XII.

¶ *Observations touching wine.*

TO say a truth, Vines began to grow in reputation at Rome, about sixe hundred yeares after the foundation thereof, and not before. For king *Romulus* vsed milk when he sacrificed to the gods, and not wine: as may appeare by the cerimonial constitutions by him ordained, as touching religion; which euen at this day be in force, and are obserued. And king *Numa* his successor made this law *Posthumia* in his later daies, *Let no man besprinkle the funerall fire with wine.* Which edict no man doubteth but he published and enacted in regard of the great want and scarcitie of wine in those daies. Also by the same Act he expressly did prohibit to offer in sacrifice to the gods, any wine comming of a Vine-plant that had not bene cut and pruned: intending by this deuise and pretence of religion, to enforce men to prune their Vines, who otherwise would set their minds on husbandrie only, and plowing ground for corne, and be slow enough in hazarding themselves for to climbe trees, whereunto Vines were planted. *M. Varro* writeth, That *Alexandrius* the king of *Tuscan* aided the *Rutilians* of *Ardea* in their warres against the *Latins* of *Latium*.

CHAP. XIII.

¶ *Of the ancient vsage of wine: and the wines in old time.*

IN ancient time, women at Rome were not permitted to drink any wine. We read moreouer in the *Chronicles*, That *Egnatius Mecenius* killed his owne wife with a cudgell, for that hee tooke her drinking wine out of a tun; and yet he was cleared by *Romulus*, and acquit of the murder. *Fabius Pictor* in his *Annales* reports, That a certaine *Romane* dame, a woman of good worship, was by her owne kinsfolke famished and pined to death; for opening a cupbord, wherein the keis of the wine-sellar lay. And *Cato* doth record, that hereupon arose the manner and custome, That kinsfolk should kisse women when they met them, to know by their breath whether they smelled of *Temetum*: for so they vsed in those daies to tearme Wine: and thereof drunkenesse was called in Latine *Temulentia*. *Cn. Domitius* (a iudge in Rome) in the like case pronounced sentence judicially against a woman defendant, in this forme, *That it seemed she had drunke more wine without her husbands knowledge, than was needfull for the preservation of her health,* and therefore afterward definitiuely, *That she should lose the benefit of her dowrie.* Certes, the *Romans* for a long time made great spare of wine. *L. Papyrius* lord Generall of the *Romane* armie, when he was at the point to joyne battell with the *Samnites*, made no other vow, but this, *That he would offer vnto Iupiter* a little cup or goblet of wine, in case he atchieued the victorie and woon the field.ouer and besides, we find in histories, that among donatiues and presents, certaine sextars or quarts of milke haue bene many times giuen, but neuer any of wine. The same *Cato* abouenamed, after his voiage into *Spain* (from whence he returned with a notable victorie, and in a triumphant manner) in a solemne speech that hee made vnto the people, protested in these words and said, *No other wine I haue drunke since I went, than the very marriage wine.* How farre vnlike was he to men in these daies, who sitting at the table, haue their cup of strong wine by themselves, and giue vnto their guests, for the most part, other small wines to drinke: or if they suffer them to drinke all one and of the best at the beginning of the feast, they will

A will be sure to change and to serue them with worse soon after. In old time, the best wines vsed at feasts were aromatized and spiced with sweet Myrrh, as appeares in the Comedie of *Plautus*, entituled *Persa*. And yet it should seeme there, that sweet Calamus was to be added besides. And hereupon it commeth, that some haue thought, how our forefathers in times past tooke most delight in such spiced cups and *Ippocras* wines. But *Fabius Dorsennus* the Poet sufficiently declarerh and deciderh this point in these verses, when he saith,

Mittebam vinum pulchrum, Murrhinum.

I sent neat wine,
Which hight Myrrhine.

B And againe in his Comedie *Acharistio*:

Panem & Polentam, vinum Murrhinam.

Both bread and grewell I did present,
And Myrrhine wine of pleasant sent.

I see moreouer, that *Scaevola*, *Laelius*, and *Atteius Capito* were of the same mind. For in the Comedie of *Plautus* entituled *Pseudolus*, thus it is written:

*Quod si opus est ut dulce promat
Indidem, ecquid habet? (Char.) Rogas?
Murrhinam, passum, Defrutum, mella.*

Of dulcet wine if there be need,
What hope is there from thence to speed?
Char. Why aske you that? he furnish'd is
With Murrhin, Cuits, and Meade yvis.

By which a man may see evidently, that Murrhina was not onely counted a wine, but reckoned also among the sweet and delicate wines.

CHAP. XIII.

¶ *Of wine store-houses: and of Opimian wine.*

That there were wine sellars at Rome, and that they vsed there to tun vp Wine in the 633 yeare after the foundation thereof, appeareth plaine by a good prooofe of the *Opimian* wine: and euen in those daies Italy knew her owne good, and what it was to maintaine vineyards. Howbeit, as yet were not those wines in credit, which now are so ripe and in so great account. And therefore it is, that all the wines of that time bear the only name of that one Consul, and be called *Opimian*. And thus afterwards also in proceffe of time, the wines that came from beyond the seas for a long space, were in much request, euen vntil our grandfathers daies: yea, and after that, the *Falern* wines were in name and called for, as may appeare by that Verse of the Comical Poet;

Quinque Thasi vini inde depromiam, Falerni bina.

To measures fve of Thasian wine,
I will draw twain of Falerne fine.

In the 675 yeare after the foundation of Rome, *Pub. Licinius Crassus*, and *L. Iulius Caesar*, Censors for the time being, published an Edict, and proclaimed, *That no man should sell any Greeke wine, or Aminean, but after eight Asses the Amphor or Quadrantum.* For these be the verie expresse words of the said Edict. Now was Greeke Wine of so great price and estimation, that a man was but allowed one draught thereof at a meale, were the cheare neuer so great, and the feast right sumptuous. But what wines were in request ordinarily at the board, *M. Varro* doth shew in these words: *L. Lucullus* (quoth hee) while he was a boy, neuer saw at his fathers bord Greeke

Greek wine serued vp but once at a meale, how good soeuer the fare was otherwise. Howbeit, G himselfe when he returned out of Asia, in a congiarius or largesse that he gaue vnto the people, made a dole and distribution of more than an hundred thousand measures of gallons apiece. C. Sentius, whom of late daies we saw Pretor of Rome, testified, that he neuer saw any wine of Chios brought into his house, before the Physition prescribed and set it down for the *Cardiaca passio*, or the trembling of the heart, whereto he was subiect. But contrariwise *Hartenfium* when hee died left about ten thousand barrels full of that Wine vnto his heire. And thus much out of *M. Varro*.

CHAP. XV. Of the bountie and liberalitie in Wine.

¶ Of *Cæsars* bountie and liberalitie in Wine.

BVt what should we say of *C. Iulius Cæsar* Dictator. In that solemne feast of his which hee made at his triumph, did not he distribute among his guests Falerne wines by whole barrels, and Greek wine of Chios by the bundlers? After his returne out of Spain with victorie and triumph, he likewise gaue away a largesse of wine as well Chian as Falern. But at the royall dinner which he made when he entred vpon his third Consulship, he caused all the Hall to be serued thorowout with Falern, Chian, Lesbian, and Mamertine wines, which was the first time that euer any man saw the seruice of 4 feuerall wines at one feast. Now in farther proces of time, and namely about 700 yeares after Rome cities foundation, all other Wines began to beare a name and come in request.

CHAP. XVI.

¶ Of Artificiall or made Wines.

Considering all that hath bin written, I nothing maruel at such an infinite number of compound and artificiall wines deuised in old time, all for the vse of Physick, wherof we will now treat in more ample maner. To begin therefore with wine-Verjuice, called *Omphacium*, how it should be made, for perfumes and odoriferous ointments, we haue shewed in the former booke. As for the wine named *Oenanthinum*, it is made of *Labrusca*, that is to say, the wild Vine, in this wise: Take two pound of the floures of the wild vine aforesaid, let the same be steeped in a measure of new wine containing about 12 * gallons, for the space of 30 dayes, and then be changed out of that vessell into another. Moreover, the root and grapes of the sayd wild Vine are good for curriers to dresse their leather. The same grapes a little after they haue done blooming are taken to be a singular remedie for to coole those that be troubled with hot and ardent diseases, for naturally they be, as men thinke, exceeding cold: and indeed many of these grapes die in the hot time of Summer before the rest which are called *Solstitiales*: but all of them neuer come to full and perfect ripenesse. Now if you would keep *Pullein* from pecking grapes, take these of the wild Vine before they be thoroughly ripe, mingle and seeth them with their meat: for this will take away all their appetite that way, and breed a loathing after all grapes.

To come now vnto the artificiall wines before named: the first of them, namely that which they call *Adynamon* [without strength] is made of very wine in this sort: Take of new white wine 20 Sextars [i. quarts:] of water halfe as much: let them boile together vntill the measure of water before said be consumed. Some take of sea water ten Sextares, of raine water as much: and when they be mingled together, suffer them to worke in the hot Sun for the space of fortie daies. This drinke they vse to giue vnto patients, for such maladies as they feare wine would be hurtfull to. A second made wine there is called *Millet Wine*, after this sort: Take of Millet seed that is ripe, huske, head, and all, a pound and a quarter, put it into two gallons of Must, or new wine: after that it hath lien there infused seuen moneths, let the liquor run from it into another vessell, and keepe it for your vse. As touching the wines of *Lotus*, as well the tree and shrub, as the herbe, we haue shewed sufficiently how they ought to be made. Moreover, there be many wines made of sundry fruits, which we will write of hereafter more at large: with a supplement and addition of such interpretations only as be necessarie. And in the first place cometh the date wine, which the Parthians, Indians, and all the Nations of the East in general

Anerall do ordinarily vse. A Modius or pecke of ripe and sweet dates, which they call *Chideæ*, they let lieto steep in 3 gallons of water, and so presse for a liquor for the Date wine. Also the Fig-wine *Sycites*, of the fig which some call *Palmiprium* (as a man would say, Dates fellows, or next to Dates) others *Catorchites*, is made after the same fashion. But if a man list not to haue it so sweet, in stead of water they vse to put so much of the stones, skins, & seeds of grapes. Of the Fig of Cypres there is an excellent Vinegre made, yea and a better than it of the *Alexandrine* Figs, to wit, growing vpon the *Sycomore*. Likewise a wine is made of the fruit in *Syria* called *Siliqua*; as also of peares and all kind of apples. As for the wine of *Pomegranates*, the Greeks name it *Rhoites*: besides the fruit of the *Corneil* or wild Cherry tree, *Medlars*, *Seruices*, dry *Mulberries*, and *Pine-nuts*, doe yeeld feuerall sorts of wine. As for those pine nuts, they must lie steeped in new wines, before the wine be pressed out of them. The rest all be pleasant enough of themselves, and will serue alone for to make wines. The maner of making *Myrtle* wine, according to the receipt and prescription of *Cato*, we will declare soon hereafter. For the Greeks haue another way of their owne, to wit, when they haue sodden in white Must or new wine the tender branches of the *Myrtle*, together with the leaues, and then stamped the same, they put a pound thereof in three gallons more of Must, and cause it to boile vntill such time as a third part of the wine be consumed. Now that which is made after the same maner of the wild *Myrtle* berries, they call *Myrtidanium*; and this will colour and staine ones hands blacke.

CFurthermore, the herbs of the garden do afford vs many wines, namely *Radish*, *Sperage*, *Savory*, & *Majoran*, *Origan*, *Smallach* seed, *Southernwood*, wild *Mints*, *Rue*, *Nep*, or *Calamint*, running *Thyme*, or *Horehound*. To make these wines, take of the herbes abovesaid two handfulls, and when they be stamped, put them into a little barrell of new Wine containing twelue or thirteen gallons, together with a wine quart of Cuit sodden to the thirds, and a pint of sea-water. But for the wine of *Naveys*, you must take eleuen drams of them, and two quarts of new wine, and so put them together in maner aforesaid. In like sort also the wine *Squilliticum* is made of the root of *Scilla*, or the sea Onion.

ETo proceed vnto wine made of floures, you haue first and formost wine *Rosat*, after this maner: Take the weight of 40 deniers [i. five ounces] of Rose leaues well stamped, put them into a linnen cloth, together with a little weight, that they may settle downward, & not floe aloft; let them hang thus in 20 Sextars [i. three gallons] and two wine quarts of Must; keep the vessell close stopp'd in any case for 3 moneths, then open it and strain the said floures vnto the liquor. In like maner is there a wine made of the *Celtick Spikenard*, as also of the *Nard sauge*. I find also, that they vse to make a kind of spiced wine or *Ipoeras*, not for sweet perfumes and ointments only, but also for to drinke. At first (as I haue shewed) they made these aromaticall wines with myrrh only, but soone after they added thereto *Nard Celtick*, sweet *Calamus*, and *Aspalathus*, either slicing these drugs, or putting them by gobbits into new Must or some dulcet wine. Some aromatise their wine with *Calamus*, *Squinanth*, *Costus*, *Spikenard*, *Amomum*, *Casia*, *Cinamon*, *Saffron*, *Dates*, and *Azara-bacca*, put thereto in like maner by gobbits. Others take *Spikenard* and *Malabathrum*, of each halfe a pound to two gallons of new wine. Much after the same maner we spice our wines now adaies also, but that we adde pepper and hony thereto: which some call *Condite*, others *Pepper wines*. Moreover, there is deuised a Wine called *Nectarites*, made of *Elecampane*, named by some *Helenium*, of others *Medica*, *Symphyton*, *Idæa*, *Orestion*: and there be also that term this herb *Nectaræa*. Now the order of it is to take of the root forty drams, to six Sextars of Must or new wine, and hang it in a cloth together with a weight in maner aboue said. Moreover, there be wines made of other herbs, to wit, of wormwood, in this sort: Take of *Ponticke Wormwood* one pound, seeth it in forty Sextars [about six gallons and a halfe] of new Wine, vntill a third part be consumed: or without boiling, put certain handfulls or bunches thereof into a vessell of Wine, and so let it lie infused. After the same sort is *Hyssop* wine made, to wit of three ounces (which is a quarter of a pound) of *Cilician Hyssop* cast whole as it is into two gallons of Must, and so let them worke together: or else stampe the *Hyssop*, and so put it into wine. But both these wines are made another maner of way, namely by sowing or setting wormwood & *Hyssop* at the very root of the Vine-plant: for so *Cato* teacheth vs to make *Ellebore wine*, of blacke *Ellebore* or *Beare-foot* growing at the Vine root. And in like maner also is made the *Scammonite wine*. A wonderfull nature and

The fourteenth Booke of

propertie these vines haue, to draw and sucke into them the very taste of other herbs and plants that are set neere vnto them: for euen so all the grapes about Padua haue a relifh of the Willows and Others that grow there in the marsh grounds. Thus the men of Thafos do plant and sow either Ellebore, or wild Cucumber, or els Scammonia, about their Vines, to make thereof their diuellish wine Pthorium, so called, because it causes a sleep, and procures vntimely birth. Of more herbs besides there be other wines made, the vertues of which herbs we wil set downe elsewhere in place conuenient: and namely of Stœchos, the root of Gentian, of Tragoriganum, of Dictamnus, of Asarabacca, of Daucus, or yellow Carot, Sauge, Panace, Acorus, or Galangal, Conyza, or Cunilago, Thyme, Mandragoras, and Squinanth. More such wines there were yet, which the Greeks called Scyzinum, Itæomelis, and Lectispagites; but as they be growne now out of vse, so the manner of making is vnkown.

As touching wines made of trees & shrubs, their maner was to seeth the berries of the green wood of both the Cedars, the Cypres, the Bay, Iuniper, Terebinth, Pine, Calamus, and Lentisk, in new wine. In like maner, the very substance of Chamelæa, Chamæpithys, and Germander. Last of all, the floures also of the said plants serue to make wines, namely, by putting into a gallon of new wine in the vat, the weight of ten deniers or drams of the floures.

CHAP. XVII.

¶ Of Hydromel and Oxymel, [i. Honied water, and Honied wineger.]

There is a wine called Hydromel, made of water and hony onely: but to haue it the better, some do prescribe rain water, and the same kept fve yeares for that purpose. Others who are more wise and skilfull herein, do take raine water newly fallen, and presently see the it vntill a third part be boiled away: then they put therto a third part also of old hony in proportion to it: and so let them stand together in the Sun for forty daies together, from the rising of the Dog-star. Others, after they haue remained thus mingled and incorporate together ten daies, put it vp & referue it close stopped, for their vse; and this is called Hydromel, which being come to some age hath the very tast of wine, & no place affords better than Phrygia.

Moreover, Vineger was wont to be tempered with hony, [See how curious men haue bin to try conclusions in euery thing!] which they called Oxymel; and that in this manner: *Recipe*, of hony ten pounds or pints: of old vineger fve pints; of sea salt one pound; of rain water fve Sextares [i. a gallon within one quart:] boile them all together at a soft fire, vntill they haue had ten plawes or walmes: which done, poure them out of one vessell into another, and so let the liquor stand and settle a long time vntill it be stale. All these wines & compositions thus brued, *Themison* (an Author highly renowned) hath condemned and forbidden expressely to be vsed. And to say a very truth, it seems that the vse of them was neuer but in case of necessity: vnlesse a man would beleue and say, that Ipocras, spiced wines, & those that be compounded of ointments, are Natures work; or that she brought forth plants and trees to no other end, but that men should drink them down the throat. Howbeit, the knowledge surely of such experiments be pleasant and delectable vnto men of great wit and high conceit, whose noble spirits cannot be at rest, but euer inuentiue and searching into all secrets. Now to conclude this point, certain it is and past all question, that none of all these compositions, vnles it be those which come to their perfection by age and long time, will last one yeare full out, nay most of them will not keep good one moneth to an end.

CHAP. XVIII.

¶ Certaine strange and wonderfull sorts of wine.

Wine also hath prodigious and miraculous effects: for, by report, in Arabia there is a wine made, which being drunk will cause barren women to beare children; and contrariwise drive men into madnes. But in Achaia principally about Carynia, the wine makes women fall into vntimely trauell: nay if a woman great with childe do eat but the verie grapes, they will slip the fruit of their wombe before their time: and yet both grape and wine differ not in tast from others. They that drinke the wine coming from the cape Troezen, ate thought vnable for generation. It is reported, that the Thasiens do make two kinds of wine of contrarie

Plinies Naturall History.

contrarie operations; the one procures sleep, the other causeth watching. Among them there is a vine called Theriace, the grape whereof, as also the wine, cureth the stings and biting of serpents, as it were a most especiall Treacle. As for the vine Libanios, it carrieth the odour and smell of Frankincense, and therefore is vsed in sacrifices to the gods. But contrariwise another named Aspendios is vtterly condemned for that purpose, and no wine thereof is imployed at the altar: they say also that no fowle will touch the grapes thereof. There is a kind of grape in Egypt which they call Thasia, exceeding sweet it is, and looseth the belly. But contrariwise there be in Lycia that binde as much and cause costiuenesse. The grapes Ecbolides in Egypt if they be eaten, cause women with child to be deliuered before their time. Some wines there be that as they lie in the very cellar will turn and proue soure about the rising of the Dog-star; but afterward wil recouer their verdure and become quick and fresh again. In like maner there be wines which vpon the sea will change: howbeit the agitation thereof causeth those Wines which endure it to the end to seem twice as old as they be indeed.

CHAP. XIX.

¶ What Wines they be that may not be vsed in sacrifices: and what waies there are to sophisticate new wines.

Forasmuch as our life stands much vpon religion and diuine seruice, wee are to vnderstand, That it is held vnlawfull to offer vnto the gods before sacrifice, the Wine of any vine that hath not bin cut and pruned; or that hath bin smitten or blasted with lightening, or standing neere to a jebbit or tree whereon a man hath hanged dead; or the grapes whereof haue bin troden by men whose legs or feet haue been wounded; neither is that wine allowable for this purpose, which hath bin pressed and run from the refuse of grape stones and skins once bruised and crushed in the presse, or last of all, if the grapes haue bin filed by any ordure or dung fallen from about thereupon. Moreover, Greeke Wines are reiected from this holy vse because they haue water in them. Furthermore, the vine it self is holden good to be eaten, namely, when the burgens and tendrils be first sodden, and afterwards preferred and kept in vineger, brine, or pickle.ouer and besides, it were very meet and conuenient to speake also concerning the manner of preparing and ordering of wine, seeing that the Greeks haue trauailed in that point severally, and reduced the rules belonging therto, into the form of an Art; and namely, *Euphronius*, *Aristomachus*, *Coniades*, & *Hicesias*, are therein great professors. The Africans vse to mitigate and allay the tartnesse of their wines with plastre, yea and in some parts of their country with lime. The Greeks contrariwise do fortifie and quicken them with clay, with powder of marble, with salt or sea water: and in some places of Italy they vse to the same effect, the shauings and scrapings of stone-pitch. Also it is an ordinary thing in Italy and the prouinces thereto confining, for to condite their new wines & to season them with rosin: yea and in some places they mingle therewith the lees of other old wine or vinegre. Oftentimes also they make sliber-fauces of it selfe without any other mixture; namely, when they boile new wine sufficiently to the proportion of the strength, vntill the hardnesse do euaporate, and that it wax mild and sweet: but being thus ordered, it will not last, they say, above one yere. In some countries they vse to seeth their new wine to the consumption of a third part, and make it Cuit, with which they are wont to delay the sharpnes and strength of other wines, & make them pleasant. But both in this kind of wine and in all other, the vessels ought to be prepared for the purpose, & seasoned with pitch: the treatise of which we will put off vnto the next booke, where we purpose to treat thereof, and the manner of making it.

CHAP. XX.

¶ Of diuers kinds of Pitch and Rosins: the manner of the seasoning and confecture of new Wines. Also of Vineger, and salt.

Among trees that yeeld from them a liquid substance, some there be in the East countries, and others in Europ, which ingender Pitch and Rosin. Asia likewise between both, hath of either side it some such trees. As for the East, the Terebinths put out Turpentine, the best and cleereft Rosin of all others: next to them, the Lentiskes also haue their Rosin, which

they call Mastick. After which, the Cipres brings forth a third rosin, but it is of a most sharpe and biting taste. All these trees (I say) carry rosin only, and the same thin and liquid: but the Cedar sendeth forth a thick substance, and good to make pitch & tar. As for the rosin or gum Arabick, it is white in colour, strong of smell, yntoward and troublefome to him that shall boile it. That of lury is harder, yea, and of a stronger sauor than Turpentine. The Siriack gum resembleth the hony of Athens. The Cyprian excelleth all others: of a fleshy substance it is, & like in colour to hony. The Colophonian is deeper of colour, and reddish: beat it to powder in a mortar it proueth white: but it carieth a strong smell with it, which is the reason that the perfumers and makers of ointments haue no vse thereof. As for that which the pitch trees of Asia do yeeld, it is passing white, and the Greeks call it Spagas. All rosins generally will dissolue in oile. Some think verily, that Potters clay will likewise do the same. But I am abashed & ashamed to report, how in these daies the same pitch whereof we speake, should be in so great account as it is, for making of pitch plaisters, to fetch off the haire of mens bodies, & all to make them more smooth and effeminate. Howbeit, the maner of seasoning new Must therewith (that when it is perfect wine, it may smell of pitch, and bite at the tongues end) is to bestrew it with the powder of pitch at the first working, the heate whereof is commonly past and gone in nine daies. And some think that the wine will be the stronger, if the raw and green floure of the Rosin, as it issueth fresh out of the tree, be put therein; for it will quicken a small and weak wine. Now this mixture and medicine of wine [called Crapula] made thus of rosin, hath contrary effects: for if the wine be ouer-heady and strong, it allaieth & mortifieth the hurtfull force thereof: but if it be too weak, or drink dead & flat, it reuiuethe againe, and giueth it a strong taste. In Liguria, and principally along the Po, they vse to season their wines, and bring them al to their feuerall perfections in this maner. If the wine when it is new be mighty and strong, they put in the more of this medicine or confection called Crapula: if it be mild and small, then the lesse goes into it: and keeping this gage with their hand, they make both good. Some would haue one wine brewed with another, the weaker with the stronger, and so (forsooth) there must needs arise a good temperature of both together: and verily there is not a thing in the world againe which hath in the nature thereof so great varietie.

In some countries, if new wine worke of it selfe a second time, it is thought to be a fault and means to corrupt it: and indeed vpon such a chance & vnhappy accident, it loseth the verdure and quick tast: whereupon it gets the name of Vappa, and is clean turned to be dead or soure: in which regard also we giue a man that name by way of scorne and reproch, calling him Vappa, when he is heartlesse, void of reason and vnderstanding. If it were vineger indeed it were another matter: for lesse though wine degenerate into it by way of corruption and putrefaction, yet a vertue and force it hath good for many speciall vses, and without which it were not possible to liue so delicatly at our table as we do. Moreover, the world is so much giuen to keepe a bruing, tempering, and medicining of wines, that in some places they sophisticate them with ashes, as it were with plaister: in other, they fortifie, recouer, and make them againe by such deuises as are before specified. But to this purpose they take the ashes to chuse, of vine cuttings, or of the oke wood, before any other. And forsooth if there be occasion to occupie sea water for this purpose, they prescribe them to fetch it far from land in the deep sea; & kept also from mid-March or the Spring Equinox, or at leastwise from mid-Iune, or summer Sunne-stead, and drawn in the night, & when the North wind blowes: but if it be got neere the time of vintage, then it ought to be wel boyled before it wil serue the turn. As for the pitch in Italy, that of Bruttium or Calabria is reputed for the best, to trim those vessels which are to keep wine. There is made of the rosin of the tree Picea (as also in Spain there comes from the wild Pines) a certain pitch which is the very worst; for the rosin of those trees is bitter, dry, & of a strong sauor. The difference and sundry kinds of pitch, as also the manner of making the same, we will declare in the book next following, in the treatise of wild and sauage trees. The faults and imperfections of pitch, ouer and besides those euen now rehearsed (to wit, bitternes, drynes, & strong sent) are known by the founesse, stinking smoke, and the very adustion thereof. But ye shall know good pitch by these experiments, if the pieces broken from it do shine, if between the teeth it relent and be clammy like glew, and haue a pleasant sharpnes and soure tast withall of the vineger. In Asia the pitch is thought best which comes of the trees in mount Ida. The Greeks esteem the trees of the hil Pieria chief for this purpose: and Virgil commends that of Narycia before all.

But

- A But to returne againe to our brewing and sophistication of wines, they that would seeme to be cunninger, or at leastwise more curious than their fellowes, do mingle therewith blacke Masticke, which is engendred in Pontus, and is like to Bitumen, and thereto adde the root of Iris or the floure de luce, and oile. For this is found by experience, That if the vessels be sered with wax, the wines therein will not hold, but turne soure quickly. Moreouer, we daily see, that better it is to put vp wine into those vessels, wherein vinegre hath been kept afore, than into such as had dulcet or honied wine. *Ca.* sets downe a receit to trim and conincinate wine (for that is the very tearme which he vses) in this manner: Take of lie ashes sodden with cuit boyled to the halfe, one fortieth part, temper it with a pound and a half of penniroyall, or salt, and otherwhiles with marble braied & beaten into powder among. He makes mention also of brimstone, but rosin he names with the last. But aboue al he wills to refresh and renew the wine when it now begins to come to maturity and perfection, with new wine which he calls Tortivum, and I take it, that he means, that which ran last out of the wine-presse: which he prescribeth also to be put vnto new wines for to get them a fresher color, as the very tincture of wine: and so it wil be also of a more fattie substance, and goe down more glib and merrily. See, see, how many deuises of medicines and slobber-sauces the poore wine is forced to endure, and all to please our pallat, our eye, and other senses: and yet ywis we maruell that it is so hurtfull to our bodies. Well, would you haue an experiment to know when wine is going, or enclining to be dead and soure; dip therein a thin plate of lead; if it change color, take it for a signe, that it is in the way of decaying. Of all liquors, wine hath this propertie to vinegre, to pal, & into change in vinegre. But a thousand medicines it doth afford, and books of Physick are full thereof. Moreover, wine lees being dried, will serue as a match to keep fire: and without any other sewell to feed it, ye shall haue it burne and flame of it selfe. The ashes thereof is of the nature of Nitre, and hath the same vertues: and in this regard somewhat more, for that it is found to be more fattie and vinctuous.

CHAP. XXI.

Of wine-cellars.

- D Now when wine is made and tunned vp in maner aforesaid, there is as great difference and diuersitie in the bestowing of it in cellars. They of Piemont about the Alpes, doe put vp their wines in wooden barrels, bound well with hoopes, for warmth and moreover, if the winter be very cold, they make fires in their cellars or butteries, to keep them for being frozen. I will tell you a strange wonder, yet true and to be verified, not by hearefay but plainefight. There were seen vpon a time whole heaps & huge lumps of wine congealed into ice, by occasion that the hoopes of the hogsheds burst that contained the wine: and this was held for a prodigious token. For indeed wine of it owne nature will not congeale and freeze, only it will lose the strength, and become appalled in extremitie of cold. In warmer climats and more temperat, they fil their wines into great stands and steanes of earth, which they set into the ground, either ouer the head all whole, or else by halfe; deeper or shallower, according to the situation & temperature of the region. Likewise they giue the wine open aire in some places: whereas in other they keep it close within house in tauernes and cellars. And thereto belong these and such like rules. First, that one side of the wine-cellar, or at leastwise the windows, ought to stand open to the North, or to the East in any wise, where the Sunne riseth at the time of the Equinoctiall. *Item*, that there be no muckhills nor priuies neer: no roots of trees, nor any thing of a strong and stinking sauor: for that wine is of this nature, to draw any smell very quickly into it: and aboue all, Fig-trees (as well the wild as the tame) be hurtfull to wine-cellars. *Item*, as touching the order of placing the wine-vessels, they ought to stand a pretty distance one from another, for fear of contagion, for that wine is alwaies most apt to catch infection very soon. Moreover, it matters much of what proportion and fashion the pipes, tubs, and such vessels be made. Those with great bellies and wide mouths, are not so good. Also they must be nealed with pitch, presently vpon the rising of the dog-star: afterwards doused and washed all ouer either in the sea or else salt water, then to bee seasoned and strewed with vine ashes or cley, and being scoured, they ought to sweeten them with a perfume of Myrrhe, which were good to be done also to the very cellars oftentimes. Furthermore, if the wines be weak and smal, they had need to be kept in tubs and hogsheds, let downe within the ground: but the strong and mighty wines may lie aboue ground.

ground in the open aire. Prouided alway, that wine vessels be neuer filled top full: but the void part that is left, and stands about the wine, would be thoroughly dight with thicke wine made of withered grapes, or sodden wine to the halfe, and saffron mingled withall, yea, and old pitch, together with cuit. Thus also ought the lids and bungs of the vessels to be ordered, with an addition besides of mastick and pitch. In the deep of Winter they must not be vnstopped and opened in any case, vnlesse the weather be faire and cleare. Neither when the wind is Southerly, or the Moon in the full. This also is to be noted, that the floure or mantle which the wine casts vp to the top, is good when it is white, if it be red, it is a very bad signe, vnlesse the wine it selfe be of that color. Moreouer, if the vessels be hote, or the lids do sweat, it is no good signe. Note also, that the wine which soone begins to mantle and cast vp a floure incontinently, or to yeeld another smell than the own, wil not continue long good. As for the cuits, whether they be sodden to the halfe or the thirds, they ought to be boiled & made when the skie is without a Moon, that is to say, in the change, and vpon no day else. Moreouer, the decoction must be in leads, and not in coppers, with walnuts among to receiue al the smoke, which otherwise might infect the cuit. In Campaine they let their best wines lie abroad in vessels, euen in the open aire, to take the Sun, the Moone, raine, and wind, and all weathers that come: and this is thought to bee best for them.

CHAP. XXII.

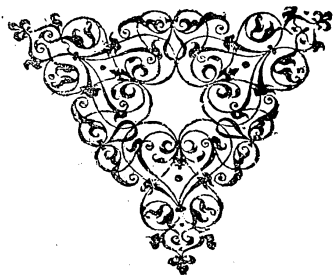
¶ Of auoiding Drunkenesse.

If a man marke and consider well the course of our life, we are in nothing more busie and curious, nor take greater paines, than about wine: as if Nature had not giuen to man the liquor of water, which of all others is the most wholsom drink, and wherewith all other creatures are wel contented. But we thinking it not sufficient to take wine our selues, giue it also to our Horses, Mules, and labouring beasts, and force them against Nature to drink it. Besides, such pains, so much labor, so great cost and charges we are at, to haue it, such delight and pleasure we take in it, that many of vs think, they are borne to nothing else, & can skill of no other contentment in this life: notwithstanding, when all is don, it transports & carries away the right wit & mind of man, it causes fury and rage, and induces, nay, it casts headlong as many as are giuen thereto, into a thousand vices and misdemeanors. And yet forsooth, to the end that we might take the more cups, and poure it downe the throat more lustily, we let it run thorough a strainer, for to abate and gueld (as it were) the force thereof: yea, and other deuises there be to whet our appetite thereto, and cause vs to quaffe more freely. Nay, to draw on their drinke, men are not afraid to make poisons, whiles some take hemlocke before they sit downe, because they must drinke perforce then, or els die for it; others, the powder of the * pumish stone, & such like stuff, which I am abashed to rehearse and teach those that be ignorant of such leaudnesse. And yet wee see these that be stoutest and most redoubted drinkers, euen those that take themselves most secured of danger, to lie sweating so long in the baines and brothel-houses for to concoct their surfer of wine, that otherwhiles they are carried forth dead for their labour. Ye shall haue some of them again when they haue been in the hot house, not to stay so long as they may recouer their beds, nor not so much as to put on their shirts: but presently in the place, all naked as they are, puffing & laboring still for wind, catch vp great cans and huge tankards of wine (to shew what lustie and valiant champions they be) set them one after another to their mouth, pour the wine downe the throat without more adoe, that they might cast it vp againe, and so take more in the place, vomiting or revomiting twice or thrice together that which they haue drunke, and still make quarrell to the pot: as if they had been borne into this world for no other end but to spill and mar good wine: or, as if there were no way els to spend and wast the same, but thorow mans body. And to this purpose, were taken vp at Rome these forreine exercises, of vaulting and dancing the Morisk; from hence came the tumbling of wraistlers in the dust and mire together; for this, they shew their broad breasts, beare vp their heads, and carrie their neckes far backe. In all which gestulations, what do they else but professe that they seek means to procure thirst and take occasion to drink? But come now to their pots that they vse to quaffe and drink out of: are there not grauen in them faire pourtrais think you of adulteries? as if drunkenesse it self were not sufficient to kindle the heart of lust, to pricke the flesh, and to teach them wantonnes. Thus is wine drunke out of libidinous cups: and more than that, he that can quaffe best and play the drun-

A drunkard most, shal haue the greatest reward. But what shal we say to those (would a man think it?) that hire one to eat also as much as he can drink, and vpon that condition couenant to yeeld him the price for his wine drinking, and nor otherwise. Ye shall haue another that will inioine himselfe to drinke euery denier that he hath won at dice. Now when they are come to that once, and be thoroughly whittled, then shall yee haue them cast their wanton eies vpon mens wiues; then fall they to court faire dames and ladies, and openly bewray their folly euen before their jealous and sterne husbands; then (I say) the secrets of the heart are opened and layed abroad. Some ye shal haue in the mids of their cups, make their wils, euen at the very board as they sit: others againe cast out bloudy and deadly speeches at randon, and cannot hold but blurt out those words which afterwards they eat againe with the swords point: for thus many a man by a lawish tongue in his wine, hath come by his death and had his throat cut. And verily the world is now growne to this passe, That whatsoeuer a man saith in his cups, it is held for sooth; as if Truth were the daughter of Wine. But say they escape these dangers: certes speed they neuer so well, the best of them all neuer seeth the Sun-rising, so drowfie and sleepey they are in bed euery morning, neither liue they to bee old men, but die in the strength of their youth. Hence comes it, that some of them looke pale, with a paire of flaggie blab-cheekes; others haue bleared and fore eies: and there be of them that shake so with their hands, that they cannot hold a full cup, but shed and poure it downe the floore. Generally they all dreame fearfully (which is the very beginning of their hell in this life) or els haue restless nights: & finally, if they chance to sleep (for a due guerdon and reward of their drunkenesse) they are deluded with imaginary conceits of *Venus* delights, defiled with filthy and abominable pollutions: and thus both sleeping and waking they sin with pleasure. Well, what becomes of them the morrow after? they belch soure, their breath stinketh of the barrell, and telleth them what they did ouer night; otherwise they forget what either they did or said, they remember no more, than if their memory were vtterly extinct and dead. And yet our iolly drunkards giue out and say, That they alone inioy this life, and rob other men of it. But who seeth not, that ordinarily they lose not onely the yesterday past, but the morrow to come? In the time of *Tiberius Claudius* the Emperor, about 40 years since, certaine out-landish Physitians and Monte-banks, who would seem to set them selues out by some strange nouelties of their own, & so get a name, brought vp at Rome a new deuise and order, to drink fasting, and prescribed folk to take a good hearty draught of wine before meat, and to lay that foundation of their dinner. Of all nations, the Parthians would haue the glory for this goodly vertue of wine-bibbing: and among the Greeks, *Alcibiades* indeed deserved the best game for this worthy feat. But here with vs at Rome *Nouellius Torquatus* a Mil-lanois, wan the name from all Romans & Italians both. This Lombard had gone through all honourable degrees of dignity in Rome, he had bin Pretor, and attained to the place of a Pro-consull. In all these offices of state he woon no great name: but for drinking in the presence of *Tiberius*, three gallons of wine at one draught and before he tooke his breath again, he was dubbed knight by the syrnyme of *Tricongius*, as one would say, * The three gallon knight: and the Emperor, sterne, seuer, and cruell otherwise though he was, now in his old age (for in his youthfull daies he was giuen ouermuch to drinking of wine) would delight to behold this renowned and worthy knight, with great wonder and admiration. For the like rare gift and commendable qualitie, men think verily that *C. Piso* first rise, and afterwards was aduanced to the Prouostship of the city of Rome, by the said *Tiberius*, & namely, for that in his court being now emperor, he sat 2 daies and 2 nights drinking continually, and neuer stirred foot from the boord. And verily *Drusus Caesar* (by report) in nothing more resembled his father *Tiberius*, than in taking his drink. But to return again to noble *Torquatus*, herein consisted his excellency, That he did it according to art (for this you must take withall, there is an art of Drinking, grounded vpon certain rules and precepts.) *Torquatus* (I say) drank he neuer so much, was not known at any time to falter in his tongue, neuer eased himself by vomiting, neuer let it goe the other way vnder boord: how late soeuer he sat vp at the wine ouer night, he would be sure to relieue the morning watch: & sentinel. He drunke most of any man at one entire draught before the pot went from his head: and for smaller draughts besides, he went before all other in number; his wine he neuer tooke while the cup was at his mouth, but iustly obserued the rule of drinking with one breath; he was not known to spit for all this: & to conclude, he would not leaue in the cup, so much as would dash against the pavement, & make the least sound to bee hard: a special point and precise law to

to prevent the deceit of those that drinke for a wager. A singular glory no doubt in him, and a rare felicity. *Tergilla* challenged *M. Cicero* the younger, son to that *M. Cicero* the famous Orator, and reproched him to his face; that ordinarily he drunk 2 gallons at once: and that one time about the rest when he was drunke, he flung a pot at *M. Agrippa* his head. And truly this is one of the fruits and feats of drunkenness. But blame not young *Cicero*, if in this point yet he desired to surmount him that slew his father, *M. Antonius* I mean; for he before that time strained himselfe, and strove to win the best game in this feat, making profession thereof, as may appear by a booke that he compiled and set forth with this title, *Of his owne drunkenness*: wherein hee was not ashamed to avow and justifie his excessse and enormities that way: and thereby approoved (as I take it) vnder pretence and colour of his drunkenness, all those outrages of his, all those miseries and calamities that he brought vpon the whole world. This treatise he vomited and spued out a little before the battell of *Actium*, wherein he was defeated: whereby it may appeare very plainly, that as he was drunken before with the blood of citizens, so still hee was the more bloud-thirsty. For this is a property that necessarily followeth this vice, That the more a man drinketh, the more he may, and is alwaies dry. And herein spake to good purpose a certain Embassadour of the Scythians, saying, That the Parthians the more they drunke, the thirstier they were.

As touching the nations in the West part of the world, they haue their drinks also by themselves made of *corn steeped in water, whereof they will drinke to the utterance, and be drunk: and namely in Spaine and France, where the manner of making the same is all one, howsoever they haue *diuers names: and in Spain they haue devised means that these drinks (Ale or Beer) will abide age, & continue stale. In Egypt likewise they haue inuented such kind of drinks made of corn: so that no part or corner of the world there is, but drunkenness reigneth. And verily these liquors howsoever they be named, they vse to drinke entire as they bee, and made of the very strength of Malt: neuer delaying the same with water, as we do wines. But it may be sayd, That Nature hath endowed & enriched those countries with abundance of corn, and therefore they may wel do it. Oh how industrious we are to maintain our vices! There is a deuise found, (would euer any man haue thought it?) how water also should make men drunke. Two liquors there be, most pleasing and acceptable to mens bodies, wine within, & oile without. Both proceed from two speciall trees, howbeit, of the twaine, Oile is necessary, and Wine may be better spared. And verily, men haue not bin idle in the making of good oile: howbeit, they haue bene more addicted and giuen to make Wines for drink; as may appeare by this, that reckoning but the generall kinds thereof, a man may find 195 sorts of wine: but if a man would subdiuide and distribute those heads into their branches, he should meet almost with twice as many: but of Oyles there bee not so many kindes by farre. Whereof we purpose to treat in the booke next following.



THE

THE FIFTEENTH BOOK OF THE HISTORIE OF NATVRE,

WRITTEN BY C. PLINIUS
SECVNDVS.

CHAP. I.

¶ The natures of trees that beare Fruit.

Here were no oliue trees grew in Italy, but vpon the coast side, and that within 40 miles of the sea, about the 440 yere after the foundation of the city of Rome: if it be true that *Theophrastus* saith, who was one of the most famous and renowned Authors among the Greeks. *Festellus* writeth moreover, and affirmeth, that during the raigne of *Tarquinius Priscus* (which was much about the 183 yere from the foundation of the city of Rome) there were no Oliue trees at all to be found, either in Italy, Spaine, or Africke: whereas now at this day they are scene all Italy over, yea and be come as far as the regions beyond the Alps, euen into the mids and very heart of France and Spaine. Indeed, in the yere after the foundation of Rome 505 (which was when *Appius Claudius*, the nephew of that great *Appius Claudius* synnamed the Blind, and *L. Iunius* were Consuls together) a pound of the oile was sold for twelue Asses: and not long after (namely, in the 680 yere) *M. Seius* the son of *Lucius* (one of the *Ædiles Curule* for the time being) brought downe the market so well, that a man might haue bought ten pound for one As; and at that price he serued the people of Rome throughout all that yere. Lesse cause therefore a man hath to maruell hereat, who knoweth how not past 22 yeaes after that (namely when *Cn. Pompeius* was the fourth time Consull) Italy was able to furnish other nations and prouinces with oile of Oliues. *Hesiodus* also (who was especially addicted to the study of husbandry, and of all things thought it most necessarie to be taught and published for the good of mankind) wrote thus much concerning the Oliue, That neuer a man was knowne to that day for to haue gathered, the fruit of that Oliue tree, which himselfe had planted: so late of growth were those trees in his time, and so slowly came they forward. But now adaies they come vp of kernels and stoness set in plots of ground for the purpose: and being transplanted againe, they beare Oliues the second yere after. *Fabianus* saith, That Oliues loue not to grow either in the coldest or the hottest grounds.

E *Virgill* hath set downe 3 kind of Oliues, to wit, *Orchitæ* [i. the great round Oliues:] *Radij*, [i. the long Oliues:] and those which are called *Pausiæ*. He saith moreover, That the Oliue trees require no tending or dressing at all, and need neither the hooke to be pruned, nor the rake and harrow to be moulded; ne yet the spade to be digged about. Doubtlesse, the goodnesse of the soile and the temperature of the climat especially, are very requisit and much materiall alone, without farther helpe: howbeit they vse to be cut and pruned, yea, they loue also to be scraped, polished, and clensed between where the branches grow ouer-thicke, euen as well as vines, and at the same season.

F The time of gathering Oliues ensueth presently vpon the vintage of grapes; but greater industry and skil is required to the making and tempering of good oile, than about new wine: for ye shall haue one and the self same kind of oliue to yeeld a different iuice, and diuers oiles: first and formost, of the greene oliue and altogether vnripe, there is drawne the Oile-oliue; which hath of all other the best verdure, and in tast excelleth the rest: and of this oile, the first running that commeth from the presse, is most commended: and so by degrees better or worse, as the oile

oil is drawn before or after, out of the presse: or, according to a late inuention, by treading them with mens feet in little panniers, and vpon hardles made of small and fine oziars. This is a rule. The riper that the oliue is, the fatter will the oile be, and more plentifull; but nothing so pleasant in tast. And therefore the best season to gather Oliues, both for goodnesse and abundance of oile, is when they begin to shew black. And such halfe-ripe Oliues we in Latine call *Drupæ*, and the Greekes *Drypetæ*. To conclude, it skilleth very much whether the berries be ripe vpon the tree, or mellow within their presse: all the while the tree be watered, that is to say, the oliues hanging thereupon be drenched and refreshed with sprinkling water, or haue no other moisture than their owne, and that which they receiue by dewes and raine from heauen.

CHAP. II.

¶ Of oyle.

Oile-Oliue commeth to haue a rank and vnpleasant tast if it be old kept and stale, contrary to the nature of wine, which is the better for age. And the longest time that oile will continue good, is but one yere. Wherein surely if a man would well consider, he may obserue the great prouidence of Nature. For seeing that wines are made to serue for intemperance and drunkenesse, there is not that necessitie to drinke much thereof, and to spend them out of hand: and more than so, the daintie tast that they haue when they be stale, induceth men to lay them vp and keep them long. But contrariwise, she would not haue vs make such spare of oile: and therefore by reason of the generall vse and need thereof, she hath made it vulgar and common to all.

As touching this benefit and gift of Nature bestowed vpon mankind, Italy of all other nations in the world carrieth the name for the goodnesse thereof: but principally the territory or country of Venetia, and namely, that quarter lying toward Licinia, which yeelds the oile called *Licinianum*: whereupon there be no oliues comparable to them of Licinia, both for to serue the perfumers, in regard of the pleasant smell which that oile doth giue, so appropriat vnto their ointments: as also to furnish the kitchin and the table (as they say that be fine-toothed, & haue a delicate taste:) which is the cause (I say) that this oile carrieth the only name. And yet these oliues of Licinia haue this priuiledge besides, that birds loue not to come neere them. Next to these Licinian oliues, the question is between them of Istria & Batica, whether of them should go away with the price for their goodnesse: and hard it is to say, which is the better of the two. A third degree there is vnder these two about named, namely, of the Oliues that come from all other prouinces, setting aside the fertile soile of that tract in Africke, which yeeldeth so great increase of corn. For it should seeme that Nature hath set it apart for graine onely, seeing it so fruitfull that way: and hath not so much enuied it the benefit of wine and oile, which she hath denied those parts, as thought it sufficient that they might glory, and haue the name for their haruests. As for other points belonging to oliues, men haue erred and bin deceiued very much: neither is there in any part concerning our life, to be found more confusion, than is therein: as we will shew and declare hereafter,

CHAP. III.

¶ The nature of the Oliue berries: also of yong Oliue Plants.

This fruit called the Oliue, consists of a stone or kernell, of oile, a fleshy substance, and the lees or dregs: now by these lees (called in Latine *Amurca*) I mean the bitter liquor of the grounds that the oile yeelds. It comes of a burdane of water: and therefore as in time of drought there is least thereof, so in a rainy and watery constitution, you shall haue store and plenty. As for the proper juice of the oliue, it is their oile, and the chiefe is that which comes of those that are vnripe, like as we haue shewed before, when we treated of *Ompharium*, or the Oliue verjuice. This oile substance doth increase and augment within the Oliue vntill the rising of the star *Arcturus*, to wit, 16 daies before the Calends of *October*; after which time, their stones and carnos matter about them do rather thrive. But marke, when there followes a glut of raine and wet weather presently vpon a dry season, the oile in them doth corrupt and turn all (well neare) into the lees abouesaid, which may easily be perceiued by the colour: for it causeth

A feth the Oliue berrie to looke blacke. And therefore when this blacknesse begins to appeare, it is a sign that they haue somewhat (although very little) of the lees; but before that, they had none at all. And herein men are foulely deceiued taking this marke for the beginning of their ripenesse: which blacke hew indeed is a signe of their corruption, and betokens that then they are in the way to be stark naught. They erre also in this, that they suppose an Oliue the more grown it is in carnositie, to be the fuller of oile: whereas in very truth, all the good juice in them is converted then into the grosse and corpulent substance thereof, and thereby also the stone and kernell come to be big and massiue: which is the cause, that they had need of watering at that time, most of all. Which being done by great paine and labour of man, or happening through raine and plenty of showers; vnlesse there insue a drie season & faire weather to extenuate that grosse substance into which the Oliue had turned the foresaid iuice and humor, all the oile is consumed and lost. For it is heat & nothing els (as *Theophrastus* saith) which ingendreth oile: & therefore both about the presse at first, & also in the very garners where Oliues be laid after, they vse to keep good fires, by that means to draw the more oile forth. A third default there is in oile, and that comes of two much sparing and niggardise: for some men there are, who being loth to be at cost to pluck and gather Oliues from the tree, wait still and looke that they should fall of themselves. And such folke as would seeme yet to keepe a meane herein, namely, to take some paines and be at a little cost; bear and pell them downe with perches and poles: whereby they do offer wrong to the poore trees, yea, and hinder themselves not a little the yere following, when they shall find how much it is out of their way, thus to break their boughes and branches.

C Whereupon the law in old time prouided well for this inconuenience, by an expresse inhibition to all gatherers of Oliues, in these words, *No man so hardie as to breake, strike, and beat the Oliue tree*. But they that go most warily and gently to worke, stand vnder the tree, and with some canes shake the boughes and branches therewith, or lightly smite them: but in no case let driue and lay at them either with full down-right or crosse-blowes. And yet as heedfull as they be in so doing, this good they get by striking and knapping off the young shootes and sprigs which should beare the next yere, that they haue the trees carry fruit but once in two yeres for it. The like hapneth also, if a man stay till they fall of themselves: for by sticking on the tree beyond their due time, they rob the oliues to come after, of all their nutriment wherewith they should be fed, and detain the place likewise where they should come forth and grow. An euident proofe hereof is this, That oliues vnlesse they be gathered before the ordinary & yerele western winds do blow, they gather heart again vpon the tree, & wil not so easily fall as before. Men vse therefore to gather the Pausian Oliues first after Autumne, which are fullest of carnosity, not so much by nature, as by misgouernement and disorder: soone after, the round *Orchitæ*, which haue plenty of oile, & then the oliues *Radij*: and these, forasmuch as they be most tender, and soonest overcome with abundance of the lees (which we called before *Amurca*) are thereby forced to fall. Flowbeit, such oliues as be thick skinned and hard; tough also and admitting no wet & rain (by which means they are the least of all others) wil abide on the tree til March: and namely, the *Licinian* Oliues, the *Cominian*, *Contian*, & *Sergian*, which the *Sabins* call *roial*: all which change not colour & look black before the foresaid Western wind blowes, that is, about the 6 day before the Ides of February; for by that time folk think they begin to ripen. Now for as much as the best & most approued oile is made of them, it seems that reason also being conformable to this defect of theirs, justifies, & aproues the same in the end. And this is commonly receiued and held among them, that cold winters breed scarcity and dearth: but full maturity brings plenty, namely when they haue leisure to ripen on the tree: howbeit this goodnes is not occasioned by the time, but by the nature rather of those kind of oliues, which be long ere they turn into the foresaid dregs *Amurca*. Men are also as much deceiued in this, that when Oliues be gathered, they keep them vpon boarded floors in sellars and garners, & will not presse them before they haue swet: whereas, in truth, the longer they lie, the lesse oile they yeeld, & the more dregs of lees. For by this means the ordinary proportion they say is, to presse out of every *Modius* of Oliues, not above 6 pound of oile. But no man makes any reckoning of the lees, how much it increases in measure day by day, in one & the very same kind of Oliues, the longer that they be kept ere they be pressed. In ope word, it is a common error settled euery where, that men do think the abundance of oile is to be esteemed according to the bignes of the oliues: considering that the plenty of oile consists not in the greatnes of the fruit: as may appeare by those that

of some are called Roiall, of others Majorina, and Phaulia, which euery man knoweth, are the biggest and fairest Oliues to see to, & yet otherwise haue least oile in them of any others. Likewise in Ægypt the oliues are most fleshie & full of pulp, howbeit, least oleous. As for the country Decapolis of Syria, the oliues indeed be very smal there, & no bigger than Capers: yet commended they are for their carnosity. And for that cause, the oliues from the parts beyond sea are preferred before the Italian, for goodnesse of meat, and as better to be eaten; yet those of Italy yeeld more oile. And euen within Italy, the Picene and Sidicine oliues surpass the rest. For in truth, these are first confected and seasoned with salt: or els (as all others) prepared & condite either with lees of oile, or wine cuit. Some oliues there be, which they suffer to swim alone as they be, in their owne oile, without any help and addition of other things; and such be called Colymbades. And the same they vse otherwhiles to bruise and cleanse from their stones, and then confect them with green herbs, which haue some pleasant & commendable taste. Others there are, which being otherwise very green and vnripe, are presently brought to maturity, and made mellow, by lying infused and foking in hot scalding water. And a wonder it is to see, how Oliues wil drink in a sweet liquor, and how by that means they may be made toothsome, yea, and to carry the taste of any thing that a man would haue them. Among oliues there be also that are of colour purple, like to those grapes which change colour when they begin to ripen. Moreover, besides the aboue named sorts of oliues, there be some named Superbae [i. proud.] Also there are Oliues to be found, which being dried by themselves onely, are passing sweet, yea, and more delicate than raisins: many these are very season, and yet such are in Africke and about the city Emerita in Portugall.

As touching the very oile it self, the way to preserve it from being ouerfat and thick, is with salt. If the barke of an Oliue tree be slit and cut, it will receiue the rellice and smell of any medicinal spice, and the oile thereof wil seem aromatized: otherwise pleasant in taste it is not, like as wine is: neither is there such difference in so many kinds of oliues as there is in wine: for surely we cannot at the most obserue about three degrees in the goodnesse of oiles, namely, according to the first, second, and third running out of the presse. Finally, the thinner that oile is, and the more subtil, the finer and daintier is the smell thereof: and yet the same same sent, in the very best of them all, continueth but a small time.

CHAP. III.

¶ The nature of Oile Oliue.

The property of oile is to warm the body, and to defend it against the iniuries of cold: and yet a soueraigne thing it is to coole and mitigate the hot distemperature of the head. The Greekes, whom we may count the very fathers and fosters of all vices, haue peruered the true and right vse thereof, to serue for all excesse and superfluitie; euen as far as to the common anointing of their wraistlers with it, in their publick place of exercise. Known it is for certain, that the gouernors and wardens of those places, haue sold the oile that hath beene scraped from the bodies of the said wraistlers for 80 Sesterces at a time.

But the stately maiesty of Rome contrariwise hath done so great honour to the Oliue tree, that euery yere in Iuly, when the Ides come, they were wont to crowne their men of armes and gentlemen marching by their troupes and squadrons in solemnewise, with chaplets of oliue, yea and the manner was of captains likewise to enter ouant in pety triumphes into Rome, adorned with Oliue coronets. The Athenians also honoured their conquerors with Oliue garlands. But generally the Greekes did set out their victors at the games of Olympia, with branches of the wild-oliue.

CHAP. V.

¶ The manner how to order Oliues.

Now will I report the precepts and rules set down by Cato, as touching oliues. His opinion is, that the greater long Oliue Radius of Salentum, the big Orchites, the Pausia, the Sergiana, Cominiana, and the Albicera, should be planted in hot and fat grounds. He addes moreover (as hee was a man of singular dexterity and prudent spirit) which of them in the neigh-

A neighbour territories and places adjoining, were taken for the best. As for the Licinian Oliues, he saith, They would be planted in a weely and cold hungry ground: for if it be a fat soile and a hot, the oile wil be corrupt and naught, and the very tree it self wil in short time be killed with ouermuch fertility and bearing too great a burden. Moreover, they will put forth a red kind of mosse, which eateth and consumeth the tree. To conclude, his mind is, that Oliue hort-yards should be exposed to the sun, yet so, as they regard the West wind also in any case, for otherwise he commendeth them not.

CHAP. VI.

¶ How to keep Oliues, and the way to make oile of them.

Cato alloweth of no other means to keep and preserve oliues (and specially the great ones) made like cullions, named thereupon Orchita, and the Pausia) but either in brine and pickle when they are Greene, or else among Lentisk branches when they are bruised and broken. The best oile is made (saith he) of the greenest and sourest oliues. Moreover, so soon as euer they be salt, they must be gathered from off the ground; and if they be souled and beraied with the earth, they ought to be washed clean, and then laid to dry three daies at the most. Now if it fall out to be weather disposed vnto frost, they should be pressed at 4 daies end. He giueth order also, to bestrew and sprinkle them with salt: saying moreover, that if they be kept in bordered sollors or garners, the oile will be both lesse in quantitie, & worse withal. So it wil be also, if it be let lie long in the lees, or together with the cake and grounds, when they be bruised and beaten: for this is the very fleshie and grosse substance of the Oliues, which cannot chuse but breed filthy dregs. And therefore he ordaineth, that oftentimes in a day it should be poured out of one vessell into another, & so by settling clarified from the grounds, & then to put it vp afterwards into pans and panchions of earth, or els into vessells or kinnels of lead, for brasse mettall wil mar oile. All this should be done within close presses and rooms, and those kept shut, where no aire or wind may come in, that they might be as warm and hot as stoues. He forbids also to cut any wood or fuel there, to maintain fire; for that the fire made of their stones and kernels, is most kindly of any other. To the end also that the grounds & lees should be liquified and turn into oile, euen to the very last drop, the oile should be let run out of those vessells or kinnels afore said into a vat or cistern; for which purpose the vessells are often to be clenfed, & the ozier paniers to be scoured with a sponge, that the oile might stand most pure & clear. But afterward came vp the deuise to wash oliues first in hot water, & then immediatly to put them whole as they are, into the presse, for by that means they squeeze forth lees & all: and then anon to bruise and crush them in a mil, & so presse them in the end. Moreover, it is not thought good to presse the second time about 100 Modij, which is the full proportion of one pressure, & it is called Factus. That which after the mil comes first, is named the floure of the oile, or the Mere-gout. Lastly, to presse 300 Modij, is thought to be foure mens work ordinarily in one night and a day.

CHAP. VII.

¶ Of Oile Artificiall

In Cato his time there was no artificiall Oiles, I meane, no other but that of the Oliue; and therefore I suppose it was, that he made no mention thereof: but now adaies there be many kinds. First will we treat of those that are made of trees, and principally before all the rest, of the oile of the wild oliue: thin it is, and much more bitter than that of the other gentle & true Oliue, but good for medicines onely.

Very like to it, is that which is made of Chamelæa, an herb or shrub growing in stony places to the height of a span & no more, with leaues and berries resembling those of the wild oliue.

The next is that which commeth of Cici, of Ricinus, [i. Palma Christi] a plant which groweth plentifully in Ægypt, which some call Croto, others Trixis or wild Sesam; but long it hath not been there. In Spaine likewise this Ricinus is found of late to rise suddenly to the height of an Oliue tree, bearing the stalke of Ferula or Fennel-Geant, clad with leaues of the vine, and replenished with seed resembling the graines or kernels of small and slender grapes, and of a pale colour withall: we in Latine call it Ricinus, of the resemblance that the seed hath to a tickle,

which is a vermin that annoies sheepe. For to gather an oile thereof, the manner is to seeth the seeds in water; the oile wil swim aloft, and so it is scummed off. But in Egypt (where there is a bundance thereof) they neuer vse any fire or water about it; only they corn it well with salt, and then presse out the oile, which is very fufsome and naught to be eaten, good only for lamps.

The oile of Almonds, which some call Metopium, is made of the bitter Almonds, dri'd stamped, and reduced into a masse or lumpe, which being sprinkled and foked with water, and then beaten againe in a mortar, is put into a presse or mill, and the oile drawne therout.

There is an oile made also of the Bay, together with the oile of ripe oliues ready to drop from the tree. Some take the Bay berries only, and thereout presse oile de-Baies: others vse the leaues and nothing els: and there be againe, who with the leaues take also the rind of the Bay berries; yea and put thereto Storax Calamita, and other sweet odors. Now for this purpose, the Laurell with broad leaues, growing wild, and bearing blacke berries, is the best.

Like vnto this oile, is that which they make of the blacke Myrtle; and the broad leaved kind thereof is the better: the berries of it ought to lie infused first in hot water, and afterwards to be boiled. Some seeth the tenderest leaues that it hath in Oile-Oliue, and then presse them forth. Others put the leaues first in the oile, & then let them stand consecreted in the sun, and there take their ripening.

After the same manner is the oile made of the garden Myrtle; but that of the wilde which hath the smaller seed is the better: and this Myrtle some call Oxymyrine, others Chamæmyrsine; and some againe name it for the smalnesse, * Acaron, for short it is and full of little branches.

Moreover, there be oiles made of the Citron and Cypresse trees: likewise of wall nuts which they call Carynon: also the fruit of the Cedar, named Cedrelæon.

Sensibly of the graine called Gnidium, to wit, the seed of Chamelæa and Thymelæa, well clesed and stamped. In like manner of the Lentisk. As for the oile Cyprinum, how it should be made of the Egyptian nut and of Ben-for to serue perfumers, hath bin shewed before. The Indians (by report) do make of Chest-nuts, of Sesame seed, & Rice. The people Ichthyophagi as they liue by eating fish only, so they make oile of fishes. And in case of necessity, otherwhiles men vse to draw an oile out of the berries of a Plane tree also, beeing steeped in water and salt, which serues for lamp oile. Yea and there is an oile made of the wild vine Oenanthe, as we haue said already in the treatise of Ointments.

As touching the oile which the Greeks call Gleucinum, it is made with new wine and oile-oliue, boiled at a soft fire. Others there be that let the wine consume all into oile, and without any fire at all, do compass the vessell wherein this composition is made, with the cake and the refuse of grapes when they be pressed, and couer it all ouer for the space of 22 daies, so as twice a day they be all mixed thoroughly together. Some there be who put therto not only Majoram, but also the most precious and exquisite odors that they can meet withal: and our common fencing-halls, and places of publick exercises be perfumed with these sweet oiles, and do smell of them; but such they be as are the cheapest of all other.

Ouer and besides, there is made an oile of Aspalathus, sweet Calamus, Balme, Iris or Flour-de-lis, Cardumome or grains of Paradise, Melilot, French Nard, Panace, Marjoram, Elecampane, and the root of Cinamon, taking all these and letting them lie infused in oile, and so pressing out the iuice thereof. So is oile Rosat made of Roses: the oile of Squinanth of the sweet rush, which is most like to the Oile Rosat. Likewise of Henbane, Lupines, and the Daffadi: the Egyptians get great store of oile out of Raddish seed, or the grasse called Gramen (which is Dent-de-chien or Quich-grasse) and this oile they call Chortinon. After the same manner the Sesame seed doth yeeld an oile; as also the Nettle, which in Greeke they call Cnecinon, or rather Cnidinum. As for the oile of Lillies, it is made in some places, where they feare not to let it stand abroad in the aire infused to take both Sun and Moon-shine; yea and frosty weather.

They that inhabit between Cappadocia and Galatia, do compound a certain oile of herbes growing among them, which is a soueraigne remedy for sinewes either wounded or otherwise grieved, and they call it Selgiticum: it is much in effect like to that oile which is made in Italie of Gums, by the people Eguini.

Now for the oile of Pitch, which they call Picinum, it is made of the vapors and smoke that arise from Pitch whiles it boileth, and receiued in fleeces of wooll spread ouer the pors mouth wherein

A wherein the said Pitch is sodden: which fleeces afterwards are well wrung, and the oile is pressed out thereof. The best oile is that which cometh from the Brutian or Calabrian pitch: the same is most fat of all others, and fullest of Rosin. The colour of the oile is reddish.

Vpon the coasts and maritime parts of Syria, there is an oile engendereth of it selfe, which the Greeks call Elaomeli: a fatty and greasie substance it is, thicker than honey, and thinner than Rosin, of a sweet tast, issuing out of trees; and is onely medicinable and good in Physicke.

As touching old oile, it serues in right good stead for sundry sorts of maladies. It is thought also very singular for to preserve Iuory from putrefaction, for this is certaine, that the image of Saturne at Rome is full of oile-oliue all within.

CHAP. VIII.

¶ Of the lees or dregs of Oile-oliue, called Amurca.

Cato hath highly commended about all, the lees of Oile-oliue: for he would haue the barrels, hogheads, and other vessels which hold oile, to be therewith besmeared, that they should nor drink vp the oile. He deuised also, that the threshing floors should be wrought and tempered with oile lees, that they might not chawne & gape, nor no Ants breed within the chinks and cranies thereof. Moreover, he thinks it very good that the mortar, plaister, and parget used about the wals of corn barns, as also their floors, should be well sprinkled and tempered with the said lees; yea, and the presses and wardrobes where apparell is kept, ought to be rubbed therewith to keep out mothes, worms, spiders, and such vermine that do hurt to cloths. He affirmeth besides, that is good against certain diseases of four-footed beasts, as also to preserve trees, yea and excellent for inward vlcers of a mans body, but especially those of the mouth. Being sodden, it is singular good (as he saith) for to annoint and make gentle and supple all bridle reins, leather thongs, shoes, and axletrees of carts and wagons; likewise to keepe all vessels of bras from rust, and also to giue them a bright and pleasant colour: moreover, all the wooden implements of an house generally throughout, and vessels made of earth and clay, wherein one would keep dry figs in their verdure, would be annointed therewith: or if one were desirous to preserve the Myrtle, leaues, fruit, and all, vpon the branches, or any such thing, there is nothing better than the said Amurca. Last of all, he saith, that what wood soeuer for fewell is dipped in these lees, it will burne cleare without any smoke.

M. Varro affirmeth, that if a Goat chance to lick with his tongue, or to brouse an oliue when it buddeth the first spring, the same tree will surely be barren and lie in great danger to miscary and die. Thus much of the Oliue tree, and of the oile of Oliues.

CHAP. IX.

¶ All kinds of Fruit good to eat, and their Nature.

AS for all other fruits of trees, they are hardly to be numbred and reckoned by their forme and figure; much lesse by their sundry tastes and diuers iuices that they yeeld, so intermingled they are together by varietie of grassing one into another.

CHAP. X.

¶ Of Pine-nuts, or Pine-apples, foure sorts.

THE Pine-nuts (which are the biggest of that kind and hanging highest vpon the tree) doe contain and nourish slender kernels enclosed within certaine hollow beds full of holes, and besides clothed and clad with another coat or husk of a dark muriey colour: wherein may be seen the wonderfull care and providence of Nature, to bestow the seedes so soft. A second kinde there be of these Nuts called Terentines, hauing a shell or huske verie brittle and easie to be crushed between ones fingers; and as soon are they pecked through with birds bills, who after that manner filch and steale them from off the tree. A third sort yet there is of them, that come of the gentle pitch trees, hauing their kernels couched within a thin husk or skin more like than a shell, and the same so soft, that it may be chewed and eaten together with the kernell. Now there is a fourth fruit growing of the wild Pine, and called those nuts are of the Grecians, Pitydia;

dia; and these be singular good against the cough. The Taurines in Calabria, haue a deuice to G
confect Pine-nut kernels, by seething them in hony; and being thus condite, they call them Aquiceli. To conclude, at the solemne and festiuall games holden at Isthmus, they who win the best prize, are wont to be crowned with a chaplet of the Pine.

CHAP. XI.

¶ Of the Quince.

NEXT to Pine apples, for big and large, are the Quinces which we call Cotonea, the Greeks Cydonea, because they were first brought out of Candy. So heauy and massie they be, that they bend the boughs to the ground as they hang vpon the tree, and will not suffer their mother to grow.

Many kinds there be of Quinces, to wit, Chrysomela, of a colour inclining to gold, and diuided by certain cut lines. Secondly, there be the quinces of our own country, & so called: these be whiter, and of an excellent smell. They also that come out of the realm of Naples, be highly esteemed. Now there be a smaller sort of the same kind called Struthea (i. the Peare-quince) and those do cast a more odoriferous smell: late they be ere they come to ripeness or perfection; whereas contrariwise the green quinces called Mustea, be as hasty and soon melow. Now if a man do graffe the great quinces vpon the Struthea, the tree wil bring forth a kind of quinces by themselves called Muluiana; and these are the quinces alone of all other that may be eaten raw. In sum, all the sort of these are come now adae to be entertained within the waiting or presence chambers of our great personages, where men giue attendance to salute them as they come forth euery morning; and in bed-chambers also they are to garnish the images standing about the beds-head and sides.

There are besides small wild quinces, next to the Peare quince Struthea, for pleasant and odoriferous smell; and they grow commonly in hedge-rows.

Moreouer, as wel Peaches as Pomegranats, notwithstanding they be of a diuers kind, yet wee call Mala (i. apples.) As for the Pomegranats, we haue spoken of nine sorts of them in our treatise of their trees, and others in Africk: and these are full of certaine graines or kernels lying inclosed vnder their rinde; whereas Peaches haue in stead thereof, a grosse stone or woody substance within the carnos pulpe of the fruit. To conclude, there be certaine peares weighing a pound, in regard of which poise and bignesse that they beare, called they are Libralia. K

CHAP. XII.

¶ Of the Peach, and foure kinds thereof.

OF all Peaches, the principall be those which are named Duracina, for the solid substance of the meat within them. As for the French and Asiaticke Peaches, they beare the name of the regions and nations from whence they come. This fruit ordinarily waxeth ripe after the fall of the leafe, or Autumne; but the Abrico@s are ready to be eaten in Summer. These haue not bin known full 30 yeares, and at their first comming vp, were sold for Roman deniers a peece, whereof there be two sorts; Supernatia, which we haue from the high countries, & namely the Sabines; and Popularia, which grow common euery where. These fruits be harmlesse, and much desired of sicke folke: and for that they are in such request, there would be giuen otherwhiles 30 Sesterces for one of them; which is a price as high as of any other fruit whatsoeuer: whereat we may maruell the rather, for that there is not any sooner gone, and lasteth lesse while than they; for being once gathered from the tree, they will not be kept about two daies at the most, and therefore must of necessitie be sold and spent out of hand.

CHAP. XIII.

¶ Of the Plum-tree, eleuen kinds of them.

TO come now to Plums, there is a world of them: some of sundry colours, others black, and some againe white. There be that are called Hordearia, because they be ripe in barley-harvest: and some there be of the same colour, yet later ere they ripen, and bigger besides; and

and for that they be of small reckoning, named they are Asinina [i. * Affe-plums.] Ye shal haue of them that be black, howbeit the yellow wheat-plum like virgin-wax, and the purple, are better esteemed. Moreouer, there are a kind of Abricors come from a forraine nation, and they be called thereupon Armeniaca, which alone for their smell also are commendable. But there is a peculiar brauerie and a shamelesse, which those Plums haue by themselves that are graffed in Nut-tree stocks; they retain the face and forme still of the mother graffe, but they get the taste of the stock wherein they are set, as it were by way of adoption: of them both they carry the name, and are called Nut-plums. Now, as wel these, as Peaches, yellow wheat-plums, & the wild Bullaife, may be kept and preserued as grapes in Autumne, within certain barrells or earthen vessels, and so they will continue good till new come. As for all other plums, as they be soon ripe, so they are as soone gone.

It is not long since, that in the realm of Granado and Andalusia, they began to graffe plums vpon apple-tree stocks, and those brought forth plums named Apple-plums: as also others called Almond-plums, graffed vpon Almond-stocks; these haue within their stone a kernel like an Almond: and verily there is not a fruit again wherein is scene a wittier deuise to conioine and represent in one and the same subiect, two diuers sorts.

As for the Damascene-plums (taking name of Damasco in Syria) we haue sufficiently spoken thereof in our treatise of strange trees: and yet long since they haue bin knowne to grow in Italy: which although they haue a large stone and little carnosity about them, yet they neuer wither into wrinkles and riuels when they be dry, for that they want the full strength of the kind Sun which they had in Syria.

We should do wel to write together with them, of the fruit Sebesten, which also come from the same Syria, albeit now of late they begin to grow at Rome, being graffed vpon Soruices. As touching peaches in generall, the very name in Latine, whereby they are called Persica, doth evidently shew that they were brought out of Persia first; and that it is a fruit not ordinary either in Greece or Natolia, but a meere stranger there. Contrariwise wilde plums (as it is well knowne) grow euery where. I maruell therefore so much the more, that Cato made no mention thereof, considering that of purpose he shewed the maner, how to preserue and keep diuers wild fruits, till new came: for long it was first ere Peach trees came into these parts, and much adoe there was before they could be brought for to prosper with vs, seeing that in the Island Rhodes (which was their place of habitation next to Ægypt) they beare not at all, but are altogether barren. And whereas it is said, That Peaches be venomous in Persia, & do cause great torments in them who do eat thereof, as also that the KK. of Persia in old time caused them to be transported ouer into Ægypt by way of reuenge to plague that country; and notwithstanding their poisonous nature, yet through the goodnes of that soile they became good and holesom: all this is nothing but a meere fable & a loud lie. True it is indeed, that the best writers who haue been painful aboue others to search out the truth, haue reported so much concerning the tree Persea; which is far different from the Peach tree Persica, & beareth fruit like to Sebesten, of color red, and willingly would not grow in any country without the East parts: and yet the wiser & more learned Clerkes do hold, That it was not the tree Persea which was brought out of Persia into Ægypt, for to annoy and plague the country, but that it was planted first by K. Perseus at Memphis. Whereupon it came, that Alexander the Great ordained, That all victors who had won the prize at any game there, should be crowned with a chaplet of that tree, to honor the memoriall of his great grandsires father. But how euer it be, certaine it is that this tree continueth greene all the yere long, and beareth euermore fruit one vnder another, new and old together. And to returne again to our Plum-trees, euident it is that in Cato's time they were not knowne in Italy, but all the Plum-trees which we now haue, are come since he died.

CHAP. XIII.

¶ Ofaine and twenty kinds of Fruits, contained vnder the names of Apples.

OF Apples (that is to say, of fruits that haue tender skins to be pared off) there bee many sorts. For as touching Pome-citrons, together with their tree, we haue already written. The Greeks call them Medica, according to the name of the country from whence they first came in old time. As for Iujubes, as also the fruit Tuberes, they bee likewise strangers as wel

well as the rest; and long it is not since they arrived first in Italy; the one sort out of Africk, G the other, namely Iujubes, out of Syria: & *Sextus Papinius* (whom my self in my time saw Consul of Rome) was the first man that brought them both into these parts; namely in the later end of *Augustus Caesar* the Emperor, and planted them about the rampiers of his campe, for to beautifie the same. Howbeit, to say a truth, their fruit resembled rather berries than apples; yet they make a goodly shew vpon the rampiers: and no maruell, since that now adayes whole groues of trees begin to ouertop and surmount the houses of priuat persons.

Concerning the fruit Tuberes there be two sorts thereof, to wit, the white and the reddish, called also Sericum, of the colour of silke.

The Apples named Lanara are held in manner for strangers in Italy, and are knowne to grow but in one place thereof, and namely within the territory of Verona. Couered they be all ouer H with a kind of down or fine cotton, which albeit both quince and peach be clad and ouergrown with in great plenty, yet these alone cary the name thereof: for otherwise, no special propertie are they known by to commend them.

A number of apples there are besides, that haue immortalised their first founders and inventers, who brought them into name, & caused them to be known abroad in the world; as if therein they had performed some worthy deed beneficiall to all mankind. In which regard, why should I think much to rehearse & reckon them vp particularly by name? for if I be not much deceived, thereby will appeare the singular wit that some men employed in grafting trees; and how there is not so small a matter, so it be wel and cunningly done, but is able to get honor to the first author, yea, and to eternise his name for euer. From hence it comes, that our best apples I take their denominations of *Mainus*, *Cestius*, *Manlius*, & *Claudius*. As for the quince-apples, that come of a quince grafted vpon an apple stock, they are called Appiana, of one *Appius* who was of the *Claudian* house, and first deuised and practised that feat. These apples cary the smel with them of quinces: they beare in quantitie the bignesse of the *Claudian* apples, and are in color red. Now left any man should think that this fruit came into credit by reason only of partiall fauor, for that the first inuentor was a man descended from so antient & noble a family, let him but think of the apples Sceptiana, which are in as great request as they for their passing roundnesse; and they beare the name of one *Sceptus* their first inuentor, who was no better than the son of a slaue lately enfranchised. *Cato* maketh mention of apples called Quiriana, as also of Scantiana, which he saith the maner is to put vp in vessels and so keep them. But of all others, K the last that were adopted, and tooke name of their patrons and inuentors, be Petisia: though they be little, yet are they passing sweet and pleasant to be eaten.

Other apples there are that haue ennobled the countries from whence they came, and caried their names, to wit, Camerina and Græcula. All the rest took name either vpon some occasion or propertie that they haue: to wit, of brotherhood, as the twin-apples Gemella, which hang one to another by couples, and neuer are found single, but alwaies grow double: of their color, as the Serica, which for their fresh hew are so called: of kindred and affinitie, as the Melapia: for their resemblance and participation of apples and peares together, as a man would say, Peare-apples, or pom-poures: of their hasty ripenesse, as the Mustea [*i. hasty apples*]; which now of their sweet tast of hony, are called Melimela [*i. hony apples*]; also of their exquisit roundnesse L like a bal, as the Orbiculata [*i. the round apples*]. That these apples came first from their native country Epirus, appeareth by the Greeks, who call them Epirotica. Again, some there be that take their denomination of their forme, resembling womens paps or breasts, as namely Orthomastica [*i. the Breast-apples*]. Others, for that their condition is to haue no pepins or seed within them, be called of the Belgians, Spadoma, as one would say, Guelded apples. As for the Meliosolia, [*i. the leafe apples*] they be so called, because they haue one leafe and otherwhile twain breaking forth of their side in the very mids. The ragged apples Pannucea take this name, for that of all others they soonest be riuelled. The Puffes named Pulmonia are houn foolishly, and swell I cannot tell how, with little or nothing in them. Some in colour resemble bloud, they are so red, because at first they were grafted vpon a mulberry. But all apples ordinarily are red M on that side that regardeth the Sun.

As for wildings and crabs, little they be all the sort of them, in comparison: their tast is well enough liked, and they cary with them a quick and sharp smel: howbeit this gift they haue for their harsh sourenesse, that they haue many a foule word and shrewd curse giuen them, and that they

A they are able, to dull the edge of any knife that shal cut them. To conclude, the Dacian Apples are of all others in manner least accepted, notwithstanding they be first mellow, and would be gathered betimes.

CHAP. XV.

¶ Of Peares. And of the varietie of grafting.

Vpon the same cause there be Peares also reproched with the name of Pride, and are called the Proud-peares: little they are, but quickley ripe, and as soone gone. Of all others the Crustumine peares be most delicate and pleasant in tast. Next to them in request are the B Falern peares, so called for their great abundance of liquor, as it were wine, whereof they be full. And these are likewise named the milk-peares: but such of them as are of color black, be called the Syrian peares. As for other peares, they haue sundry names according to the countries wherein they grow. Howbeit these peares following, retain their name still in all places, and represent alwaies the memoriall of those that first planted or grafted them, to wit, Decimiana of one *Decimus*, a known citizen of Rome: of which is also a bastard kind which they call Pseudodecimiana. Likewise, the Dolobellian peare, of one *Dolobella*: and those are of all other the longest tailed. As touching the Pompeian peares, which be also called the Pap or Teat-peares, the Licerian, the Seuerian, and of their race the Tyrannian, they differ one from another in the length of their steale. The red Fauonian peares be somewhat greater than the abouenamed Proud-peares. As for the Laterian and Anitian, which be not gathered nor ripen vntill Autumne be past, they haue a prettie tart and sourish tast, but nathelesse pleasant ynough. The Tyberian peares beare the name of *Tiberius* the Emperor, for that of all others he loued that fruit best: they might go for Lycerians well ynough, so like they be vnto them, saue onely that they grow big, and are more deeply coloured with the Sunne.

Moreover, there are peares which are knowne by no other name than of the countries where they grow, namely, those of Ameria which be more lateward than any other: the Picentine, Numantine, Alexandrine, Numidian, Grecian, and among them the Tarentine. Also the Signine peares, which many call Testacea, of the color, of earthen pots that they resemble, like as others be named Onychium, for that they represent the Onyx stone, or a mans naile; as likewise those D which be called Purple-peares.

Furthermore, peares take their name of the odour which they yeeld: thus there be Myrapia, to wit, Aromaticall-peares, Laurell, and Nard-pears. Of the time also when they be ripe, as the Barley-pears: of the forme of their neck, as the Bottle-peares called Ampullacea: of their thick skin, as the Coriolana. As for the Gourd-pears, they are by nature of a brutish or sauage kind, so harsh, so foure and eager a liquor they doe yeeld.

Many sorts of peares there are, whereof we can giue no certain reason for their denomination, namely, the Barbarian and Venerian peares, which also be called Colored: likewise, the roiall peares, which hang or rather sticke flat to the tree, so short a steale they haue. The Patritian also and Voconian peares, which are both green and long. Moreover, *Virgil* hath spoken of the E Voleman peares or wardens, which he had from *Cato*, who also nameth the Sementine or the hasty and soon ripe peares. So as in this point verily the world is growne alreadie to the highest pitch, in so much, as there is not a fruit, but men haue made trial and many experiments, for euen in *Virgil*'s daies the deuise of grafting strange fruits, was very rife: considering that he speakes of the Arbut tree grafted on Nut-trees, the Plane vpon Apple-trees, and the Elme vpon Cherrie stockes. In such sort, as I see not how men can deuise to proceed farther. And certes for this long time, there hath not beene a new kind of Apple or other fruit heard of.

And yet as industrious as men haue been that way, they are not permitted to graffe all manner of trees indifferently one in another, no more than it is lawfull to graffe vpon bushes and thornes: seeing that it is not so easie a matter to appease lightnings: for looke how many sorts of trees are thus engrafted contrarie to nature, so many kinds of lightenings and thunderbolts F by report, are flashed and shot at once.

Peares naturally are more sharpe-pointed at one end than Apples. And among them, the Greeke peares, the Gourd and Laurell peares are last of all others ripe, for they hang vpon the tree vntill Winter, and they mellow with very frost: like as the Amerine and Scantiane apples.

Furthermore, peares are kept and preferred as grapes, and after so many waies: but none of them

them are put in barrells as plums be. Finally, Peares and Apples both, haue the properties of wine: and in like sort Physicians be wary how they giue them to their patients. Howbeit, when they be sodden in wine and water, they serue in stead of a broth or grewell: & so do no fruit els but Pome and Peare-Quinces.

CHAP. XVI.

¶ The manner how to preserve Apples.

THE generall rules to keep and preserve Apples, are these, *Imprimis*, That the solars be wel planked and boarded in a cold and drie place; provided alwaies, that the windows to the North do stand open, especially euery faire day. *Item*, to keep the windows into the South shut, against the winds out of that corner: and yet the North winds also where they blow, doe cause Apples to shrink and riuell ill fauouredly. *Item*, That Apples be gathered after the Æquinox in the Autumne: and neither before the full of the Moone, nor the first houre of the day. Moreover, that all the Apples which fell, be seuered from the other by themselves, and laid apart: also that they be bedded vpon straw, mats, or chaffe vnder them: that they be so couched as that they touch not one another, but haue spaces between to receiue equall aire for to bee vented. To conclude, this is well knowne, that the Amerine Apples, doe last and keepe good long, whereas the honic Apples will abide no time.

CHAP. XVII.

¶ How to keep Quinces, Pome-granats, Peares, Soruises, and Grapes.

FOR the good keeping and preserving of Quinces, there must be no aire let into them where they are enclosed: or else they ought to be confected in sodden honey, or boiled therein.

Pomegranats should be plunged into sea-water boiling, and so hardened therein: and after that they be dried in the Sun three daies, (so as they be not left abroad in the night to take dew) they would be hanged vp in a solar, and when a man list to vse them, then they must be wel washed in fresh water. *M. Varro* sets downe the manner to keep them within great earthen vessels, in sand. And if they be not ripe, he would haue the earthen pots bottomes broke off, and so the Pomegranates to be put in, and couered all ouer with mould: but the mouth thereof must be well stopped for letting any aire in; provided alwaies, that the Steele and the branch wherto the fruit groweth, be pitched. For so (quoth he) they will not giue ouer to grow still, yea, and proue bigger than if they had remained vpon the tree. As for other Pomegranats [i. that are ripe] they may be wrapped and lapped one by one in fig-leaves, such as are not fallen, but plucked from off the tree Greene, and then to be put into twigge paniers of oisiers, or else daubed ouer with potters clay.

He that would keep Peares long, must put them in earthen vessels turned with the bottomes vpward, well varnished or annealed within, couered also with saw dust or fine shauings, and so entered. As for the Tarentine Peares, they abide longest on the tree ere they be gathered. The Anitian Peares be well preserved in cuit-wine.

As for Soruises, they are kept also in trenches within the ground, but the couer of the vessel whereinto they are put, ought to be well plastered all ouer, and so stand two foot couered with earth: also they may be set in a place exposed open to the Sun, with the bottome of the vessels vpward; yea, and within great barrells they may be hung vp with their branches and all, after the manner of grape-clusters.

Some of our moderne writers handle this argument more deeply than others, and fetch the matter farre off, giuing out rules in this manner, saying, That for to haue Apples or Grapes *de garde*, that is to say, fit to be preserved, and to last long; the trees that beare the one and the other, ought to be pruned and cut betimes, in the waine of the Moone, in faire weather, and when the winds blow drie. Likewise they affirme, That fruits to be preserved, would be chosen from drie grounds: gathered before they be full ripe: and this would be looked vnto in any hand, that the Moon at the gathering time, be vnder the earth, and not appearing in our hemisphere. And more particularly, for Grape bunches they would be gathered with a foot or heele from the old hard wood, and the Grapes that are corrupt and rotten among the rest, be clipped off with a

paire

A paire of sheers, or plucked out with pincers: then to be hung vp within a great new earthen vessel well pitched; with the head or lid thereof thoroughly stopped and plastered vp close, to exclude all aire. After which manner, they say Soruises and Peares may be kept, but so, as in any case the twigs and steels whereby they hang, be well besmeared with pitch. Moreover, order would be giuen, that the barrells and vessels wherein they are kept, be far ynough from water. Some there be again who keep Grapes together with their branch, after the same maner in plaster: but so, as both ends of the said branch sticke in the head of the sea-Onion Squilla: and others let Grape-clusters hang within hogsheds and pipes hauing wine in them: but so, as the Grapes touch not the wine in any case. There be also that put Apples and such fruits in shallow pans or pancheons of earth, and let them swim and float aloft vpon the wine within their vessels. for besides that this is a way to preserve them, the wine also (as they think) will thereby get a pleasant & odoriferous tast. Others ye haue besides, that chuse rather to preserve al these fruits, as well Apples, Peares, &c. as Grapes, couered in Millet seed. Howbeit, the most part dig a trench or ditch two foot deep in the ground, they floore it with sand in the bottome, and lay their fruits thereupon; then they stop the top with an earthen lid, and afterwards couer al with earth. Some there are which smeare their bunches of Grapes all ouer with potters clay; and when they are dried in the Sun, hang them vp in solars for their vse: and against the time that they should occupie them, steep them in the water, and so wash off the foresaid clay. But for to keep Apples that are of any worth, they temper the same clay with wine, and make a mortar, thereof, wherein they lap the said Apples. Now if those Apples be of the best kind and right soueraine, after the same sort they couer them with a crust of the like past or mortar, or else clad them within a coat of wax: and if they were not fully ripe afore, they grow by that means and break their crust or couer what euer it be. But this would not be forgotten, that they vse alwaies to set the Apple or fruit vp right vpon the taile, howsoeuer they be kept. Some there are who gather Apples and such like fruit with their slips and sprigs, hide them within the pith of an Elder tree, and then couer them in earth, as is before written. And others there are, who for euery Peare or Apple, haue a feuerall earthen pot, and after that their lids be well closed and stopped with pitch, then they enclose them again with great vessels or tuns. Nay ye shal haue some to lap them with flocks and wooll, and so put them in cases, and then they see wel luted with mortar made of clay and chaffe tempered together. Some order them in the same sort, but they put them in earthen pans: and others make no more adoe, but dig a hole in the ground, floore the bottom with a course of sand, put the Apples or fruit within, & then anon when they are thus buried, couer all with mould. These be that vse Quinces in this wise; they take them, anoint them with wax coming out of Pontus, and let them afterwards to ly couered in hony.

Columellamine Author reporteth, That fruits will keepe well in earthen pots thoroughly pitched, and afterwards set in pits, and drenched in cisternes of water. In the maritime coasts of Liguria next to the Alpes, they vse to take Grapes after they be dried in the Sun & wrap them within bands of rushes and reeds, put them vp in little barrells, and stop them close with plaster. The Greeks haue the same fashion: but they take for that purpose, the leaves of the Plane-tree, of the vine it selfe, or else the fig-tree, after they be dried one day in the shade: and when they be in the barrell, betweene euery bed of grape clusters, they couch a course of grape kernels, and such refuse remaining after the presse. And in this manner are the grapes of Coos and Berytus preserved: and for sweetnesse and pleasant tast, there are no better to be found. And some there be, that for to counterfeit these excellent Grapes, besmeare them with lie ashes so soon as euer they be pulled from the Vine, and presently drie them in the Sunne: which done, they enwrap them within leaves, as hath been said before, and so couch them close within the cask of pressed grapes. Neuerthelesse, there be diuers that chuse rather to keepe Grapes in the saw dust or shauings of Firre-wood, Poplar, or Ash. Some are afraid to let grapes hang neer to Apples, Pomegranates, and such like fruit, and therefore giue in charge to let them presently after they be gathered, for to be hung vp in garners or boarded lofts: supposing that the dust which they gather from aboute, is the best couer to defend and preserve them. The remedie to keepe Wespes from them, is to spurt or squirt oile out of a mans mouth vpon them. And thus much concerning the way to preserve Grapes and other fruits aforesaid. As for Dates, we haue spoken sufficiently before of them.

OF all other fruits that haue tender pills or skins, and are called in Latine, Poma, Figges are the biggest: for some of them are found to be as great as Peares. As touching the Sycomores of Ægypt and Cypres, and of their admirable fruit we haue written ynough in the treatise of forraigne Trees. The Idæan Figs that come from the mountaine Ida, are of color red, of the bignesse of Oliues, only rounder they be, & in tast resemble Medlars. In the region about Troas neare to the said hill Ida, they call that fig-tree Alexandrina. It is as thicke as a mans arme about at the cubite or elbow, and full of branches: the wood thereof is tough and strong, howbeit, pliable to wind and bend which way a man would haue it. Void of milky substance it is, clad with a green barke, bearing leaues like the Tillet or Linden tree, but that they be soft. *Onciscritus* writes, that the Fig-trees in Hyrcania beare more pleasant fruit than ours in Italie, without all comparison: also that they carrie a greater burden, and be farre more plentifull, inso-much, as one of them ordinarily yeelds 270 Modij of Figs. We haue here also in Italie many Fig-trees brought out of other forraign countries, to wit, from Chalcis and Chios: wherof there be many sorts. For both our Lydian Figs which are of a reddish purple color, and also the Mammillane or teat-Figs, haue a resemblance of the said Chalcidian and Chian Figs, yea, and the Calistruthion Figs beyond others not a little, in goodnes of tast: and these of all the rest are the coldest. As touching the Affricane Figs, which many men preferre before all others, they hold the name of Affricke, as if it were their native countrey: and yet there is a great question thereabout, and I wot not well what to say thereof, considering that it is not long agoe that Affricke begun first to haue Fig-trees. For the Alexandrine Figs are of the blacke kind, hauing a white rift or chancere, and are furnished Delicate. The Rhodian Fig is likewise blacke of hue: and so is the Tiburtine, which also is of the hastie kind, and ripe before others.

Moreouer, there be certaine Figs which beare the names of those that brought them first into Italy: namely, the Liuiian and Pompeian, and such are fittest to be dried in the Sun and so to be kept all the yeare long for a mans vse: like as the illfaoured, foolish and gaping Figs Mariscæ: as also those that are speckled with spots like the leaues of Laconian reeds.

There are besides the Herculeane, Albicerate and Aratan white Figges, which of all other are most flat and broadest, and withal haue the least taile or steele wherby they hang. The Porphyrite Figs first shew vpon the tree, and ordinarily be longest tailed. The smallest Figs called the popular Figs, which also are of all others the basest & of least account, come next after and beare the Porphyrites companie. Contrariwise, the Chelidonian Figges be the last: and ripen against Winter.

Moreouer, certain Figs there be which are both early, & also lateward: namely, such as beare twice a yeare: and be both blacke and white: for they are ripe first in haruest, and afterwards, in time of vintage. Late also it is before the Duracinæ be ripe, so called of the hard skin which they haue. Also some there be of the Chalcidian kind which beare thrice a yeare. At Tarentum there grow none but such as are exceeding sweet, and those they call Omas [or rather Oenadas, tasting of wine.]

Cato in his treatise of Figs writes thus, The vsfaurie Fig dotes, Mariscæ, would be sowne in an open, light, and chalkie ground. But the Affricane, Hirculane, and the Winter Saguntine Figges, as also the Telliane (which are blacke and long tailed) loue a fatter soile, or else well dunged.

After this, Figges haue changed into so many kinds, and altered their names very often: in such sort that by this point it is euident, how the world is altered, and to what varietie this life is subject. In some prouinces, as namely in Mœsia, there be winter Figs that hang all Winter long: but they come to be such, more by art and cunning, than naturally of themselves. For so soone as Autumne is passed, and Winter approaches, they vse to couer with dung certaine little Fig-trees which they haue, and together with them the green yong Figs that they find on them in Winter: and when they haue continued so the sharpe time of dead Winter, so soone as the weather begins to be more warme and temperate, they discharge both fruit and tree of their dung: which being thus let out again (as it were) where they seemed buried, and now coming

to

A to light, they no sooner find the fresh aire, & another kind of nourishment differing from that, whereby they liued, but doe embrace and receiue the comfort of the new Sun most greedily, as if they were new born and reuiued: in such sort, as that in Mœsia, notwithstanding it be a most cold region, ye shall haue the figs of these trees to ripen, when others begin to blossom, and by this means become early and hasty figs in another yeare.

Now forasmuch as we are fallen to mention the figs in Affricke, which were in so great request in the time of *Cato*, I am put in mind to speake somewhat of that notable opportunity and occasion which by the means of that fruit he took for to root out the Carthaginians, & rase their very city. For as he was a man who hated deadly that city, and was otherwise careful to provide for the quiet and securitie of his posteritie, he gaue not oer at every sitting of the Senat, to importune the Senators of Rome, and to cry out in their eares, That they would resolute

B and take order to destroy Carthage: and in very truth one day about the rest, he brought with him into the Senat house an early or hasty fig which came out of that country, and shewing it before all the lords of the Senat, I would demand of you (quoth he) how long ago it is (as you think) since this fig was gathered from the tree? And when none of them could deny but that it was fresh and new gotten: Lo (quoth he) my masters all, this I do you to wit, It is not yet full three daies past since this fig was gathered at Carthage: see how neere to the walls of our citie we haue a mortall enemy. Vpon which remonstrance of his, presently they concluded to begin the third and last Punick war, wherein Carthage was vtterly subuerted and ouerthrowne. Howbeit *Cato* suruiued not the rasing and sackage of Carthage, for he died the yeare immediately following this resolution. But what shall we say of this man? whether was more admirable in this act, his prouident care and promptnesse of spirit; or the occasion presented by the sudden

C object of the fig? was the present resolution and forward expedition of the Senat, or the vehement earnestnesse of *Cato*, more effectually to this enterprize? Certes, somewhat there is about all, & nothing in mine opinion more wonderful, than so great a signiory and state as Carthage, which had contended for the Empire of the world for the space of 120 yeres, and that with the great conquestours the Romanes, should thus be ruined and brought vtterly to nought, by occasion of one fig. A designe that neither the fields lost at Trebia and Thrasymenus, nor the disgrace receiued at the battell of Cannæ, wherein so many brave Romans lost their liues, and left their dead bodies on the ground to be interred, could effect: nay not the disdain that they took to see the Carthaginians incamped and fortified within 3 miles of Rome, ne yet the brauadoes of *Annibal* in person, riding before the gate Collina, euen to dare them, could euer bring to passe. See how *Cato* by the means of one poore fig, preuailed to bring and present the forces of Rome to the very walls of Carthage.

There is a fig tree called *Navia*, honoured with great reuerence, in the common Forum and publique place of justice at Rome, euen where the solemne assemblies are held for election of Magistrats, neere to the Curia, vnder the old shops called *Veteres*: as if the gods had consecrated it for that purpose: neere (I say) it is to the Tribunal named *Puteal Libonis*, & there planted by *Achius Nauis* the Augur, where the sacred reliques of his miracle, to wit, the Rasor and the Whetstone, were solemnly interred: as if it came of the owne accord from the said Curia into the Comitium, and had not bin set by *Nauis*. This tree if it begin at any time to wither, there is another replanted by the priests, who that way are very careful and ceremonious. But a greater respect is had of another in remembrance of the first fig tree named *Ruminalis* (as it were) the nurse of *Romulus* and *Remus*, the two yong princes foundlings, and founders also of the city of Rome: for that vnder it was found a she wolfe, giuing to those little babes the teat (in Latine called *Rumen*): and for a memoriall hereof there is a monument of brasie erected neere vnto it, representing that strange and wonderful story. There grew also a third fig tree before the temple of *Saturne*, which in the yeare 260 after the foundation of the city of Rome, was taken away, at what time as a chappell was builded there by the Vestal nuns, and an expiatory sacrifice offered, for that it ouerthrew the image of *Sylvanus*. There is a tree of the same kind yet liuing, which came to grow of it self, no man knows how, in the midst of the Forum Romanum, and in that very place where was the deepe chinke and gaping of the ground, that menaced the ruine of the Roman empire; which fatall and portentuous gulfe the renowned knight *Curtius* filled vp with the best things that were to be found in the city, to wit, his Vertue and Piety incomparable, testified by a most braue & glorious death. In the very same place likewise there is

an

an Oliue and a Vine, which came thither by as meere a chance, but afterwards well looked and trimmed by the whole people, for to inioy the pleasure and shade thereof. And there also stood an altar, which afterward was taken away by occasion of the solemne shew of sword-fencers, which *Julius Caesar* late Emperor, exhibited to do the people pleasure, which were the last that plaied their prizes, and fought at the sharp in the said Forum. To conclude, wonderfull it is to see, how the fruit of this tree maketh hast to ripe: a man would say that Nature therein sheweth all her skill and force to ripen figs altogether at once.

CHAP. XIX.

¶ Of the wilde Fig trees: and of caprification.

There is a kind of wild Fig trees, which the Latines call *Caprificus*, that neuer brings any fruit to maturitie; but that which it selfe hath not, it procureth to others, and causeth them to ripen. For such is the interchangeable course & passage of causes in nature, that as this thing putrifeth, that ingendreth; and the corruption of one is the generation of another. By this it comes to passe, that the wild fig tree breedeth certaine flies or gnats within the fruit thereof: which wanting nourishment, and not hauing to feed vpon in those figs, because they become rotten and putrified as they hang vpon the tree, they flie vnto the other kinde of gentle and tame fig-trees, where they settle vpon the figs, and greedily nibble thereupon, vntill they haue made way and pierced into them; and by that means let in at first the breath of the warme Sun, and that comfortable and vegetatiue aire besides that helpeth to ripen them. Soon after they suck vp and spend the milky humor which they find there, and which keeps the figs still as it were in their infancie, and hindreth their speedy and timely maturitie. True it is, that the figs in time would ripen of themselves by the power and benefit of Nature only: howbeit skilfull and industrious husbandmen take order alwaies to set these wild fig trees neere to the place where other fig trees grow, but with due regard of the winde side, that when the foresaid gnats breake forth and are ready to fly out, a blast of wind might carry them to the other. And hereupon came the deuise and inuention to bring whole swarms & casts of them, as they hang one to another, from other places, that they might settle vpon the figs to consume the raw moisture within. Now if the soile be lean and hungry, and the fig trees growing therupon exposed to the North wind, there is no such need of this help: for the figs will dry sufficiently of themselves, by reason as well of the situation of the place, as the clefts and rifts in them, which will effect that which the gnats or flies aboue named might performe. The like effect is to be seen also where much dust is, namely, if a fig tree grow neere vnto a high-way much frequented and trauelled by passengers. For the nature of dust is to dry and soke vp the superfluous moisture of the milke within figs. And therefore when they are thus dried, whether it be by the meanes of dust, or of the said flies feeding, which is called *Caprification*, they fall not from the tree so easily, by reason they are discharged of that liquid substance which maketh them both tender, and also ponderous, weighty, and brittle withall.

All figs ordinarily are tender and soft in handling. Those which be ripe haue small graines within them: their succulent substance besides, when they begin to ripen, is white like milke: but when they are perfectly ripe it is of the colour of hony. They will hang vpon the tree vntill they be old, and when they are aged, they yeeld a certain liquor which distilleth from them in manner of a gum, and then in the end become dry.

The better sort of figs haue this honor and priuiledge, to be kept in boxes and cases for the purpose: and chiefly those which come from the Isle *Ebusus*, which of all others are the very best and largest: yea, and next to them those that grow in the *Marrucines* country. But where they are in more plenty they put them vp in great vessels called *Orcæ*, as namely in *Asia*: also in barrels & pipes, as at *Ruspina* a city in *Barbary*. And in very truth, the people of those countries make that vse of them when they be very dry, that they serue both for bread and meat. For *Cato* setting downe an order for dyet and victuals fit and sufficient for labourers, ordained, that they should be cut short of their other pittance, when figs are ripe, and make vp their full meals with it. And it is not long since the manner came vp to eat fresh new figs with salt and powdered meats, in stead of cheefe. And for to be eaten in this sort, the figs called *Cocthana* (whereof we haue written before) and the dried figges *Caricæ* are commended: as also the *Cauneæ*, which

A which when *M. Crassus* should imbarque in that expedition against the *Parthians* (wherein he was slain) presaged ill fortune, and warned him not to go forward: namely, when at the very instant that he was ready to set foot a ship-board, there was a fellow heard to cry those figs for to be sold, pronouncing aloud, *Cauneas*, *Cauneas*: which word in short speaking was all one with *Cave ne eas* [i. Beware of this voiage, and go it not.] All these sorts of figges *L. Vitellius* brought out of *Syria*, into his ferm or manor that he had neere *Alba*, hauing *L. Gouvernor* or *Lieutenant* generall in those parts, namely, in the later end of *Tiberius Caesar* the Emperor: and the same *Vitellius* was afterward *Censor* at *Rome*.

CHAP. XX.

¶ Of Medlars: three kinds of them.

Medlars and Seruices may well and truly be ranged in the ranke of Apples and Peares: Medlars be of three sorts; namely, *Anthedon*, *Setania*, and the third which they call *Gallicum*, [i. the French Medlar] which is of a bastard nature, yet it resembles the *Anthedon* rather than the other. As for the *Setanian* Medlar, the fruit is greater and whiter than the rest; also the kernels or stones within are of a more soft substance, and not altogether so woody and hard. The rest are smaller than these *Setania* or common Medlars, but they haue a better smell and more odoriferous, and withall will last longer. The tree it selfe that beareth Medlars is reckoned among the greatest sort: the leaues before they fall wax red: the roots be many in number, and run downe right deep into the ground: by which meanes, ynneth or verie hardly they be quite rooted vp. This tree was not known in *Italy* by *Cato's* dayes.

CHAP. XXI.

¶ Of Seruices, foure kinds.

OF Seruices there be foure fundry sorts, differing one from another: for some of them are round like apples, others pointed at the end as Peares; a third kinde are fashioned like eggs, as some long or tankard apples: and these are apt to be soon soure. For sweet sent and pleasant tast the round excell all others: the rest haue a relish of wine. The best kinde of them are they that haue soft & tender leaues about their steles whereby they hang. The fourth sort they call *Torminale*, allowed onely for the remedie that they afford to mitigate the torments and wringing of the colique. This tree is neuer without fruit, howbeit the smallest of all the rest, and differeth from the other, for it beareth leaues very like to the *Plane*. There are none of them that beare fruit before they be three yeares old. Lastly, *Cato* would haue Seruices to be preserued and condite in Cuit.

CHAP. XXII.

¶ Of the Wall-nut.

The next place to these for bignes, the Walnuts doe challenge, which they cannot claime for their credit and authoritie; and yet they are in some request among other licentious and wanton *Fescennine* ceremonies, at weddings: for lesse they be than *Pine nuts*, if a man consider the grosnesse of the body outwardly; but in proportion therto they haue a much bigger kernel within. Moreover, Nature hath much graced and honoured these nuts with a peculiar gift she hath endued them with, namely, a double robe wherewith they are clad: the first is a tender and soft husk; the next, a hard and woody shel: which is the cause that at mariages they serue for religious ceremonies, resembling the manifold tunicles and membranes wherein the infant is lapped and enfolded within the womb: and this reason foundeth more probable, than that they should be scattered, because in their fall they rebound and make a ratling [to drowne (forsooth) all other noises from the bride-bed or chamber.] That these Nuts also were brought out of *Perfis* first by commandement of the Kings, is euident by their Greeke names; for the best kind of them, they call *Perficon*, and *Basilicon*; as one would say, the *Persian* and *Royall nut*: and these indeed were the first names. Afterwards, the nut came to be named *Carion*, (by all mens confession) for the heauinesse of head which it causeth, by reason of the

strong smell. Their outward husk serues to die wooll: and the little nuts when they come new forth are good to giue the haire of the head a reddish or yellow colour. The experiment thereof was first found by staining folks hands as they handled them. The elder that nuts be & longer kept, the more oleous and fatty they are. The only difference in the sundry kinds consisteth in the shell, for that in some it is tender and brittle, in others hard; in one sort it is thin, in another thick: lastly, some haue smooth and plain shells, others again be as full of holes and cranies.

Walnuts be the fruit alone that Nature hath inclosed with a couer parted in twaine, and so is ioyned and set together; for the shell is diuided and cleft iust in the middle, and each halfe resembleth a little boat. The kernell within is distinguished into foure parts, and between euerie of them there runneth a membrane or skir of a woody substance. As for other nuts, their meat is solid and compact, as we may see in Filberds and Hazels, which also are a kind of nuts, and were called heretofore Abellinæ, of their natieue place, from whence came good ones at first. They came out of Pontus into Natolia and Greece, and therefore they be called Pontick nuts. These Filberds likewise are couered with a soft bearded huske, and as well the shell as the kernell is round and solid, all of one entire piece. These nuts also are parched for to be eaten, and within their belly they haue in the mids a little chit or spirt as if it were a nauill.

As for Almonds, they are of the nature of nuts, and are reckoned in a third ranke. An vpper husk they haue like as Walnuts, but it is thin: like as also a second couerture of a shell. The kernell differeth somewhat, for broader it is and flatter, and their skin more hard, more sharpe, and hotter in taste than that of other nuts. Now whether the Almond tree were in Italy during the life of *Cato*, there is some doubt and question made; because he nameth the Greeke nuts, which some do hold for a kind of walnut. Mention maketh he besides of the Hazel nuts or filberds, as well the * Galbæ, as the Prenestine, commended by him aboue all others, which hee saith are put vp in pots, and kept fresh and green within the earth. Now adaies the Thasian and Albeusian nuts be in great account; and two sorts besides of the Tarentine, whereof the one hath a tender and brittle shell, the other as hard: and those are the biggest of all other, and nothing round. He speaketh also of the soft shaled Filberds *Molluscæ*, the kernels whereof doe swell and cause their shells to breake in sunder.

But to return again to our Walnuts: some to honor them interpret their names *Iuglandes*, as a man would say, the nuts of *Iupiter*. It is not long since I heard a knight of Rome, a gentleman of high calling, and who had bin Consul, professe and say, that he had certain walnut trees that bare twice a yeare. As for Fifticks we haue spoken already of them. To conclude, these kind of nuts the aboue named *Vitellius* brought first into Italy at the same time, namely, a little before the death of *Tiberius* the Emperor: and withall, *Flaccus Pompeius* a knight of Rome, who serued in the wars together with him, caried them ouer into Spain.

CHAP. XXIII.

¶ Of Chestnuts eight kinds.

WE entitle Chestens also by the name of Nuts, although indeed they are more aptly to be called a kind of Mast. This fruit what euer it be is inclosed within a huske, and the same defended and armed all ouer with a rampier and palisade (as it were) of sharp pricks like the skin of an vrrchin; whereas the Acorn and other Mast is but half couered, and that defence in them is begun only. And certes, a wonderfull matter it is that we see so little store by this fruit, which Nature is so carefull to hide and defend. Vnder one of these husks ye shall find sometime three Chestnuts, and those hauing certain tough pills or shells very pliable. But the skin or filme within, and which is next to the body or substance of the fruit, vlesse it be pulled off and taken away, marreth the taste of it, like as it doth also in other nut-kernels. Chestnuts if they be roasted are better and more pleasant meat than otherwise. They vse also to grind them to meale, and thereof is made a kind of bread, which poore women for hunger will eat. The first Chestnuts were known to grow about Sardis, & from thence were brought, wherefore the Greeks call them Sardinian nuts: but afterwards they came to be named *Alis Balanitis*. [*i. Iupiters nuts*] when as men began to graffe them; for thereby they became more excellent. And this day there be many sorts of them. The Tarentine be gentle and not hard of digestion, and in forme flat and plaine. That which they call *Balanitis*, is rounder, it will soone be pulled and

cleaned, and of it selfe will leape out of the skin. And of this kind, the Salarian is more neat, flat, and smooth: the Tarentine not so easie to be handled and dealt withall: the Corellian is more commended than the rest; as also the Meterane, which commeth of it by graffing: the manner whereof we will shew when we come to treat of graffes. These haue a red pilling, in which regard they are preferred before either the three cornered, or the blacke common ones, which be also called *Coctiæ*, [*i. Chestnuts to be boiled*]. The best Chestnuts are they which grow about Tarentum, and Naples in Campaine. All the rest are good in manner for nothing but to feed swine, * so close sticketh the pill or inner skin also, as if it were foudered to the kernell within, and so hard it is to seperate the one from the other.

CHAP. XXIII.

¶ Of Carobes: of fleshie and pulpous fruits: of Mulberries: of liquid kernels or graines, and of berries.

THE fruit called Carobes or Caracts, may seeme to come neare vnto the foresaid Chestnuts, (so passing sweet they be) but that their cods also are good to be eaten. They bee as long as a mans finger, and otherwhiles hooked like a faulcheon, and an inch in bredth. As for mast, it cannot be reckoned among fruit properly called Poma, and therefore we will speak of them apart, according to their nature.

Now are we to treat of the rest which are of a carnosus substance: and those are diuided into fruits that be soft and pulpous, and into berries. The carnosity in Grapes and Raisons, in Mulberries, and the fruit of the Arbut tree, differs one from the other. Againe, the fleshy substance in Grapes between the skin and the liquid juice, is one, and that in Sebesten is another. Berries haue a carnosity by themselves, as namely Oliues. Mulberries yeeld a iuice or liquor within the pulpe thereof, resembling wine. They be ordinarily of three colours: at the beginning, white; soone after, red; and when they be ripe, blacke. The Mulberrie tree bloometh with the last, but the fruit ripeneth with the first. Mulberries when they be full ripe, staine a mans hand with the juice thereof, and make them blacke: but contrariwise being vnripe, they scoure them cleane. There is not a tree againe, wherein the wit of man hath bin so little inuentiue, either to deuise names for them, or to graff them, or otherwise, saue only to make the fruit fair and great. There is a difference which we at Rome doe make, betwene the Mulberries of Ostia and Tusculum.

D There is a kind of Mulberries growing vpon the bramble, but their skin is much harder than the other. Like as the ground-strawberries differ in carnositie from the fruit of the Arbut tree, and yet it is held for a kind of Strawberry, even as the tree it selfe is tearmed the Strawberry tree. And there is not a fruit of any other tree, that resembleth the fruit of an hearb growing by the ground, but it.

The Arbut tree it selfe spreadeth full of branches: the fruit is a whole yeare in ripening: by which means a man shall find alwaies vpon the tree, yong and old fruit together one vnder another; and the new euer more thrusts out the old. Whether it be the male or female that is barren, writers are not agreed. Surely the fruit is of base and no reckoning at all: no maruell therefore if the Latines gaue it the name *Vnedo*, for that one of them is enough to be eaten at once. And yet the Greeks haue two names for it, to wit, *Comarum* & *Memecylon*: whereby it appeareth, that there be as many kinds among the Latines also, although it be tearmed by another name, *Arbutus*. *K. Inba* saith, that these trees in Arabia grow to the heighth of fiftie cubites.

As touching Graines and liquid Kernels, there is great difference betwene them: for first and formost, among very grapes, there is no small diuersitie in the skin, either for tendernes or thickeesse: in the inner stones or pepins, which in some grapes are but single, or one alone; in others double, and those commonly yeeld not so much wine as the others do. Secondly, those of Iuic and Elder differ very much, yea and the graines within a Pomegranat are not like to others in their forme, for they alone be made cornered and angle-wise; and seuerall as they bee, they haue not a particular skin of their own, but they are altogether clad within on, which is white: and yet they stand all wholly of a liquor and pulpous carnositie, especially those which haue within them but a small stone or woodie kernell.

Sensibly, there is as much varietie in berries: for oliues differ much from Bay berries: likewise those of a Lotte tree are diuers from them which the Corneil tree beares. The Myrtle also differeth

differeth from the Lentiske in the verie berrie. As for the huluer or hollie berries, and the hawes of the white-thorn, they are without any juice or liquor: whereas Cherries be of a middle kind, betweene berries and graines. This fruit is white at the first, as lightly all berries be whatsoeuer: but afterwards some waxe greene, as Oliues and Baies; others turn red, as Mulberries, Cherries, and Cornoiles; but in the end they all become blacke, as Mulberries, Cherries, and Oliues.

CHAP. XXV.

¶ Of Cherries, eight kinds.

Before the time that *L. Lucullus* defeated *K. Mithridates*, there were no cherrie-trees in Italy: but after that victorie (which was about the 680 yeare from the foundation of the citie of Rome) he was the man that brought them first out of Pontus, and furnished Italie so well with them, that within fixe and twentie yeres, other lands had part therof, even as far as Britain beyond the ocean. Howbeit (as we haue before said) they could neuer be brought to grow in Egypt, for all the care and industrie employed about them. Of Cherries, the reddest sort bee called *Apronia*; the blackest, *Actia*; the *Cæcilian* be round withall. The *Iulian* Cherries haue a pleasant tast, but they must be taken new from the tree and presently eaten; for so tender they be otherwise, that they will not abide the carriage. Of all other, the *Duracine* Cherries be the foueraign, which in Campaine are called *Pliniana*. But in *Picardie*, and those low countries of *Belgica*, they make most account of the *Portugall* Cherries: as they do also who inhabite vpon the riuier *Rhene*. They haue a hew with them composed of three colors, between red, black and green, and alwaies look as if they were in ripening still. It is not yet full 5 yeres since the Cherries which they call *Laurea*, were known: so called they be, because they were graffed on a Bay-tree stocke, and thereof thy take a kind of bitternes, but yet not vnpleasant to the tast. There be moreouer *Macedonian* Cherries, growing vpon a small tree seldome about three cubits high: and yet there be certain dwarfe Cherries not full so tall, called *Chamecerasti*, [i. ground cherry-thrubs.] The Cherry-tree is one of the first that yeelds fruit to his master, in token of thankfulness & recognisance of his paines all the yeare long. It delights to grow in cold places and exposed to the North. The Cherrie wil drie in the sun, and may be kept in barrels like Oliues.

CHAP. XXVI.

¶ Of the Corneile and Lentiske tree.

The same care is had in conditing the berries of the Corneil and the Lentiske, as in preserving Oliues: so curious are men to content their tooth, as if all things were made to serue the belly. Thus we see, how things of diuers relishes are mingled together, and one giues a tast vnto another, and causeth to be pleasant at the tongues end. Nay we entermingle all climates and coasts of heauen and earth to satisfie our appetite: for to one kind of meat we must haue drugs & spices fetcht as far as from India: to another, out of Egypt, Candie, and Cyrene: and in one word, for every dish we haue a feuerall land to find vs sawce. To conclude, wee are growne to this passe, that we cease not to sophisticate our viands, euen with hurtfull things, so they tast well: yea and to make dishes of very * poisons, because we would deuoure and send all downe the throat. But more plainly hereof, in our professed discourse of the nature and vertue of Hearbs.

CHAP. XXVII.

¶ The diuersitie of tastes and saours.

In the meane time, as touching those things which are common as well to all fruit, as juices and liquors: first and formost we find of tastes 13 feuerall kinds; to wit, sweet, pleasant, fattie, bitter, harsh and vnpleasant, hot and burning at the tongues end, sharpe and biting, tart or astringent, sowre, and salt.ouer and besides all these, there be three others of a most strange and wonderfull nature. The first is that, wherein a man may haue a smacke of many tastes together, as in wines: for in them a man shall find an harsh, sharpe, sweet, and pleasant relish all at once; and yet these all differ from the natie verdure of wine. A second sort there is besides, which carries a strange & different tast verily from the thing it self, and yet it hath besides the proper and peculiar

A culiar tast of the owne substance, as the Myrtle: for it carrieth a feuerall tast by it selfe, proceeding from a certaine kind, mild, and gentle nature, which cannot truly be called either sweet, fattie, or pleasant, if we would speake precisely. Last of all, water hath no tast at all of any juice or liquor whatsoeuer, and yet therein is a flat tast by it selfe, which is called waterish, that nothing else besides hath: for if a man do tast in water a relish of any sap or liquor, it is reputed for a bad and naughtie water.

Furthermore, a great and principall matter of all these tastes, lyeth in the saour and smell; which is connaturall vnto the tast, and hath a great affinitie with it: and yet in water, is neither one or other to be perceiued: or if any be felt either by tongue or nose, it is faultie, that is certaine. Finally, a wonderfull thing it is to consider, that the three principall Elements whereof the world is made, namely, Water, A ire, and Fire, should haue no tast, no saour, nor participation of any sap and liquor at all.

CHAP. XXVIII.

¶ The juice and sap of Fruits and Trees: their colours and odours: the nature of Apples; and such soft Fruits: and the singular commendation of all Fruits.

To begin withall, The Peare, The Mulberry, & the Myrtle-berrie, haue a juice or sap within them, resembling wine, * no maruell then, of Grapes, if they haue the like. Oliues, Bay-berries, Walnuts and Almonds, haue a fattie liquor in them. The Grape, the Fig, and the Date, carie a sweet juice with them. Plums haue a waterish tast.

There is no small difference in the colour also that the juice of fruits do beare: Mulberries, Cherries, and Corncils, haue a sanguine and bloudie liquor: so haue the blacke grapes; but that of the white grapes, is likewise white. The juice of Figs toward the head or neck of the fruit, is white like milke; but of another color in all the bodie besides. In Apples, it is in manner of a froth or some in Peaches, of no colour; and yet the *Duracina* of that kind, be full of liquor; but who was euer able to say, what colour it was of?

The odor and saour likewise of fruits, is as strange and admirable: for the smell of Apples is sharpe and piercing; of Peaches, weake and waterish. As for sweet fruits, they haue none at all: D for verily we see, that sweet wines likewise haue little or no smell, whereas the small and thin are more odoriferous: and all things in like manner of a subtil substance, do affect the nostrills more, than the thicke and grosser doe: for whatsoeuer is sweet in sent, is not by and by pleasant and delicate in tast; for sent and smacke are not alwaies of like sort: which is the reason that *Pomecitrons* haue a most piercing and quick saour, whereas in rellish they are rough and harsh: and so it fares in some sort with Quinces. As for Figs, they haue not any odor. And thus much may suffice in generall, for the sundrie kinds and sorts of fruits which are to be eaten, it remaineth now to search more narrowly into their nature.

To begin then with those that are enclosed within cods or husks: ye shal haue some of these cods to be sweet, and the fruit or seed contained within, bitter, and contrariwise, many of those E graines or seeds are pleasant and toothsome enough; but eaten with the huskes, they be starke naught and loathsome.

As touching berries, there be that haue their stone or wooddie substance within, and the fleshy pulp without, as Oliues, and Cherries: and there be again, that within the said woody stone haue the carnositie of the berry as some fruits in Egypt, whereof we haue already written. As for berries carnos without forth, & pulpos fruit called Apples, they be of one nature. Some haue their meat within, & their wooddie substance without, as nuts: others, their carnosity without, and their stone within, as Peaches and Plums. So that in them we may say, That the faultie superfluity is enuironed with the good fruit, whereas fruit otherwise is ordinarily defended by the said imperfection of the shell. Walnuts and Filberds are enclosed with a shell. Chestnuts be contained vnder a tough rind, that must be pulled off before they be eaten; whereas in Medlars, the carnositie and it be eaten together. Acornes, and all sorts of mast, be clad with a crust; Grapes with a skin, Pomegranats with a rind and a thin pannicle or skin besides. Mulberries do consist of a fleshy substance and a liquor. Cherries, of a skin and a liquid juice. Some fruits there be, the substance whereof will soon part from their wooddie shell without, or stone within,

as nuts and Dates: others sticke close and fast thereto, as Oliues and Bay berries. And there be againe that participate the nature of both, as Peaches: for in those that be called Duracina, the carnos substance cleaueth hard to the stone, so as it cannot be plucked from it, whereas in the rest, it commeth easily away. Now ye shall meet with some fruits, that neither without in shell, nor within-forth in kernell, haue any of this woodinesse, as a kind of Dates [named Spadones.] And there be againe whose very kernell and wood is taken for the fruit it selfe, and so vsed: as a kind of Almonds, which (as we said) doe grow in Egypt. Moreover, yee shall haue a kind of fruits furnished with a double superfluity of excrement to couer them without-forth, as Chestnuts, Almonds, and Walnuts. Some fruits haue a substance of a threefold nature, to wit a bodie without; then a stone or wood vnder it; and within the same, a kernell or seed, as Peaches. Some fruits grow thick and clustred together vpon the tree, as Grapes, and likewise Seruises, which claspe about the branches and boughes, bearing and weighing them downe as well as grapes. Others for it, hang here and there very thin, as Peaches. And there be againe that lye close, contained (as it were) within a wombe or matrice, as the kernells of the Pomegranates. Some hang by smal steles or tailes, as Peares: others in bunches, as Grapes and Dates. Ye shall haue some fruit grow by clusters, and yet hang by a long taile, as the Berries of Iuie and Elders: and others againe cleaue fast to the branch of the tree, as Bay berries: some both waies, as Oliues, for there bee of them that haue long steles, and others againe shorttailed. Some fruits there be also, that are formed like cups or mazers, as Pomegranats, Medlars, the Egyptian bean or Lote, and that which groweth about the riuier Euphrates.

As for the singularities and commendable parts in fruits, they be of diuers sorts, Dates are most set by for their fleshie substance, and yet they of Thebes aboue in high Egypt, are esteemed onely for their outward coat or crust that they haue. Grapes, and the Dates called Caryotæ, are in great account and estimation for their iuice and liquor: Peares and Apples be most accepted for their callous substance next vnto their skin or paring; but the honey-apples Melimela, are liked for their carnositie and fleshie pulpe within: Mulberries content the tast with their gristle or cartilage substance: and the best part of the nut, is the very graine of the kernell. In Egypt, some fruits are regarded only for their vtmost skin, as drie Figs: when Figges bee green, the same is pilled off and cast aside like a shell; but be they once drie, the said skin is passing good. In all kind of Papyr-reeds, Ferula plants, and the white thistle Bedegnar, the verie maine stemme is the fruit to be eaten. The shoots also and tender sprigs of the Fig-tree, are reputed for good meat, and also medicinable. To come vnto the shrubs kind, the fruit of Carobbes is eaten together with the stalke. As for Carobe, what is it else but a meere woodie substance that folke doe eat? (and yet the seed and graines within them, are not altogether to be despised for the propertie that they haue) although to speak precisely, it cannot properly be called either flesh, wood, or gristle; neither hath it found any other conuenient name to be termed by.

CHAP. XXIX.

¶ Of the Myrtle, eleuen kinds thereof.

Nature hath shewed her wonderfull power and bounty, especially in the iuice of the Myrtle, considering that of all fruits, it alone doth yeeld two sorts both of oile and wine: likewise the mixture or composition called Myrtidanum, as we haue said before. Also there was another vse in old time of Myrtle berries: for, before that Pepper was found and vsed as it is, they serued in stead thereof: from whence tooke name that exquisite and daintie dish of meat, which euen at this daie is called Myrtatum. And hereof came that excellent sauce so highly commended for the brawne of the wild Bore, when for the most part Myrtle berries are put thereto to dip the meat therein, for to giue a better tast to that kind of venison.

As for the very tree it selfe, the first that euer was seen within the compasse and precincts of Europe (which beginneth at the mountaine Ceraunia) was about Circeij, where stood the tombe sometimes of *Elpenor*; and still it retains the Greeke name: whereby we may well iudge, that it is a stranger. Howbeit there grew a Myrtle tree in old time, when Rome was first founded, euen in that plot of ground where the citie now standeth. For thus goeth the historie: That vpon a time the Romanes and Sabines being raunged in battaile array, and at the point

A to fight a field, and to try the quarell (for the wrong which the Sabines pretended, was done to them, in regard that the Romans had rauished their daughters being yong maidens) were reconciled and made friends: and thereupon laid downe their armes and weapons, and were there purified with the sacred branches of Myrtle, in that very place wherein now the temple & image of *Venus Cloacina* standeth: which therupon tooke the name (for that *Claue* in old Latine, signified to purge or cleanse.) Besides, that tree otherwise doth afford a kind of sweet perfume to be burned. Now was this tree chosen for that purpose then to make attonement and to ratifie the mariage betweene the Romans and the Sabine Virgins, because *Venus* is the president and mother of carnall copulation, and the patronesse withall of the Myrtle tree. I will not confidently auouch, but me thinks I may presume to say, that the Myrtle was of all other trees first planted in the publick places of Rome for some memorable preface and fore-tokening of future euent, and things to come. For whereas the temple of *Quirinus* (i. of *K. Romulus*) is reputed for one of the most antique buildings now extant, there grew euen before it for a long time two old and sacred Myrtle trees: the one named *Patritia* (i. the Myrtle of the Nobility:) and the other *Plebeia*; that is to say, the Myrtle of the Comminalty. The *Patritia* prospered and flourished many yeares together, whiles the *Plebeia* began to fade and wither. And to say a truth, so long as the Senate was able to maintaine and vphold their authority, the Myrtle of the Nobles continued fresh and Greene, and spread her boughes at large; whereas that other of the Commons seemed as it had bene blasted, dried, and halfe dead: but after that the state of the Senat began to quaike and droupe (which was about the time of the war with the *Marfians*) as their tree decayed and wasted, so the *Plebeians* Myrtle held vp the head againe: and so by little and little, as the Maiesty of the Senatours was taken downe and abated to nothing, so their Myrtle waxed poore and barren vntill it became dry and stark dead. Moreover, there stood an old chappel and an altar consecrated to *Venus Myrtea*, whom now at this day they call *Murtia*.

Cato in his time wrote of three kinds of Myrtle: to wit, the white, the blacke, and the Conjugula (so called haply of wedlock or mariage:) & peraduenture it may come of the race of those Myrtles belonging to *Venus Cloacina* aboue named. Howbeit, in these daies wee distinguish our Myrtles otherwise; for some we repute wild and sauage, others tame and gentle: and these both are likewise of two sorts, to wit, either broader or narrower leaued. To the wilde kind properly belongeth the prickie Myrtle *Oximyrsine*. As for the tame and gentle Myrtles, they be those that are planted in hort-yards and gardens, wherewith gardeners make arbours, knots, and diuers deuises. Whereof be sundry kinds. The *Tarentine* with small leaues; ours of Italy with broader; and the Myrtle * *Hexastica*, which is very full of leaues, and ordinarily each branch hath six rankes thereof. But these are altogether out of request: both the other are full of boughes and branches. As touching the aboue named Conjugula, I suppose it be the same that our common Myrtle here in Italy. But the most odoriferous Myrtle of all others, is that which groweth in Egypt.

Now concerning the wins of Myrtles, *Cato* hath shewed vs the manner how to make it: namely, to take the black Myrtle berries, to dry them in the shade vntill they haue lost all their waterish humidity, & so to put them in Must or new wine, & let them lie there infused, or in steep.

E For certainly, if the berries be not dried before, they would yeeld an oile from them. Howbeit, afterward there was a deuise found out to make a white wine of the white Myrtle in this manner. Take of Myrtles wel beate[n] or stamped, the quantity of two * Sextares, steep the same in three hemires or pintes of wine, and then straine and presse forth the liquor.

Moreover, the very leaues of the Myrtle tree, being dried and reduced into a kinde of meale, are singular good for to cure the vlcers in mens bodies: for certaine it is, that this powder doth gently eat away and consume the superfluous humours that cause putrifaction. And besides, it serueth well to coole and repress immoderate sweats.ouer and besides, the Oile also of Myrtles (a strange and wonderful thing to tell) hath a certaine relish and taste of wine: and withall, the fat liquor thereof is indued with a speciall and principall vertue to correct and clarify Wines; if the bagges and strainers where-through the wine runneth, bee first soaked and drenched therewith: for the said oleous substance retaineth and keepeth with it all the lees and dregges, and suffereth nothing but the pure and cleare liquor to passe through, and more than that, it carrieth with it the commendable odour and principall vertue of the said oile. Furthermore, it is said, That if a wayfaring man that hath a great journey for to goe on foot, carrie

* not Exoticæ Turneb.

* i. wine quartes

Virgeli annuli
But Turnebus
readeth Virge
faculi, i. staues
made of their
steele boughes.
And Expertes
ferri, i. not hea-
ded with yron.

in his hand a sticke or rod of the Myrtle tree, he shall neuer be weary, nor thinke his way long and tedious. Also rings made of Myrtle twigs, without any edged iron tooke, keep downe and cure the swelling bunch that riseth in the groine. What should I say more? The myrtle intermedleth in war affaires: for *Posthumius Tubertus*, being Consull of Rome (who was the first that entred in a petty triumph, ouant into the city, because he had easily conquered the Sabines; and drawne in manner no bloud of them) rode triumphant in this manner, to wit, crowned with a chaplet of Myrtle, dedicated to *Venus Victorese*; and from that time forward the Sabines (euen his very enemies) let much store by that tree, and held it in great reuerence. And euer after, they that went but ouant into the city after a victory, ware this kind of garland only, except *M. Crafusus*, who after he had vanquished the fugitiue slaues, and defeated *Spartacus*, marched in a coronet of Lawrell. *Masurius* writeth, how Generals when they entred triumphant into Rome, riding in their stately chariots (which was the greatest honor of all others) ware vpon their heads, chaplets of Myrtle. *L. Piso* reporteth, That *Papyrius Maso* (who first triumphed in mount Albanus ouer the Corsians) vsed euer after to come vnto the games Circenses, and to behold them, crowned with a garland of myrtle. This *Papyrius* was grandfather by the mothers side, to the second *Scipio Africanus*. Finally, *M. Valerius*, according to a vow that he made in his triumphs, vied to weare coronets as well of Lawrell as Myrtle.

CHAP. XXX.

¶ Of the Lawrell or Bay tree, thirteene kinds thereof.

Lawrell is appropriate vnto triumphs, and besides groweth most pleasantly before the gates of the Emperors court, and bishops pallace, giuing attendance there as a dutifull portresse or huiisser, most decently. This tree alone both adorneth their stately houses, & also keepees watch and ward duly at the dores. *Cato* setteth down two kinds of Lawrell, to wit, the Delphick, and the Cyprian. Hereunto *Pompeius Lenax* hath ioined a third, which he called Mustacea; because in old time they vsed to lay the leaues thereof vnder certain cakes or March-panes (which in those daies they called Mustacea) as they were in baking; this third kind hath leaues of all others largest, flaggy, hanging, and whitish withall. As for the Delphick, it carieth leaues of one entire colour, greener than the rest; the baies or berries thereof likewise are biggest, and of a reddish green colour. With this Lawrell were they wont to be crowned at Delphos, who won the prize at any tourney or solemne game; as also the victorious captains who triumphed in Rome. The Cyprian Lawrell hath a short leafe, black, crisped, or curled, and about the sides or edges thereof it turneth vp hollow like a gutter or crest-tile. Howbeit, afterwards there were ranged in the rank of Lawrels other trees, to wit, the *Tinus*, which some take to be the wild Lawrell, others say it is a kind of tree by it self; indeed, it differeth from other Lawrels in the colour of the fruit; for it beareth blew berries. Then came the roiall Lawrell in place, which began to be called Augusta or Imperial. This is a very tall and big tree, with leaues also as large in proportion, and the Baies or berries that it beareth are nothing sharp biting and vnpleasant in tast. But some there be that think this roiall Bay, is not a Lawrell, but a feuerall tree apart, as hauing longer & broader leaues than the rest of the ordinary sort. And these writers speaking of other kinds, call our common Bay tree, *Baccalia*, and namely that which is so fruitful and beareth such a sort of berries: as for the fruitlesse and barren of that sort they name *Triumphal*, which is, as they say, vsed in triumphs. Whereat I maruell very much, vnlesse this ordinance and custom began of *Augustus Caesar*, by occasion of that Lawrell which came to him as sent from heauen: (as I wil shew anon more at large;) and of all others it is for height lowest, in leafe short and frizled, very geason and hard to be found. Now there is another kind of Lawrell named *Taxa*, very fit for greene arbors, and to be wrought into knots. Out of the midst of the leafe there growes forth another little one, in manner of a skirt, tongue, or lappet of the leafe. Also without any such excrecence there is that, which they name *Spadonia*, as one would say, the guilded Bay, that cares not how shadowie the place be where it grows: for be it neuer so remote out of the Sun, or ouershadowed how soeuer, yet it ceases not to grow & ouerspread the ground where it standeth. Moreover, in this rank is to be reckoned the wild shrub called *Lowrier* or *Chama-daphne*. There is besides the Lawrell *Alexandrina*, which some call *Idæa*, [i. Mountaine Lawrell] others *Hypoglottion*, [i. Horse tongue] some *Daphnitis*, others *Carpophyllon* or *Hypelate*. This plant putteth forth branches

A branches immediatly from the root, of a span or nine inches long: very proper and hand som to draw workes, or to clad arbors withall in a garden, also to make garlands and chaplets. The leaues are more sharp and pointed, softer also and whiter than those of the Myrtle, yea, & haue within them a bigger grain or seed, of colour red. Great plenty therof groweth vpon the mountaine *Ida*, likewise about *Heraclea* in *Pontus*; and in one word, neuer but in hilly and mountain countries.

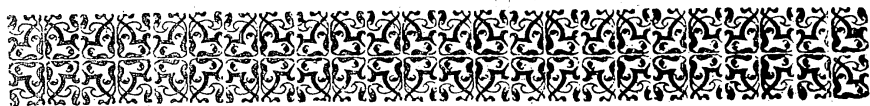
As for the herb *Daphnoeides* or *Laureola*, it hath many names: for some terme it *Pelasgum*, others *Eupetalon*, and there are again who would haue it to be *Stephanos Alexandri* (i. *Alexanders* chaplet.) This plant also is full of branches, carrying a thicker and softer leafe than the common Lawrell; and if a man tast therof, it will set both the mouth & also the throat on a fire: the berries that it beareth be blackish, inclining to a kind of red. It hath bin noted and obserued in ancient writers, that no kind of Lawrell in old time was to be found in the Island *Corsica*; and yet in these daies it is there planted, and thriueeth well enough. The Lawrell betokeneth peace: insomuch, as if a branch therof be held out among armed enemies, it is a signe of quietnes and cessation from armes. Moreover, the Romans were wont to send their missiue letters adorned with Lawrell, when they would giue aduertisement of some special good newes or ioiful victory: they vsed besides to garnish therewith their lances, pikes, and spears. The knitches also and bunches of rods, born before grand captains and generals of the army, were beautified & set out with Bay branches. Herewith they stick and bedecke the bosome of that most great and gracious *Insipiter*, so often as there cometh glad tidings of some late & fresh victory. And all this

C honor is don to the Lawrell, not because it is alwaies green, nor for that it pretendeth and sheweth peace (for in both these respects the oliue is to be preferred before it) but in this regard, that the fairest and goodliest of them grow vpon the mountain *Parnassus*; and therefore also is it so acceptable to *Apollo*, for which cause (as may appeare by *L. Brutus*) the Roman kings in old time were accustomed to send great presents and oblations thither to the temple of *Apollo*; or peraduenture it was in memoriall of that ground that bare Lawrell trees, and which according to the Oracle of *Apollo*, the said *L. Brutus* kissed, when he intended the publicke freedom of the city, and minded to deliuer it from the yoke and seruitude of the kings: or haply, because it alone either set with the hand before the dores, or brought into the house, is not blasted and smitten with lightning. And these reasons verily induce me to beleue, that in times past they chose the

D Bay tree for their triumphs, before any other: rather than as *Masurius* would haue it, because the Lawrell serued for a solemne perfume, to expiate and affoile the carnage and execution don vpon the enemies. And so far were men in old time from common vsing either Lawrell or oliue, and polluting the same in any prophane vse, that they could not be permitted to burne thereof vpon their altars when they sacrificed or offered Incense, although it were to doe honour to the gods, and to appease their wrath and indignation. Euidēt it is, that the Bay tree leaues, by their crackling that they make in the fire, do put it from them, and seem to detest and abhor it. It cureth moreover the diseases of the guts [the matrice and the bladder] also the lassitude and wearinesse of the sinews. It is reported, that *Tiberius Caesar* the Emperour vsed euer to weare a chaplet thereof when it thundered, for feare of being stricken with lightning.

E Moreover, certaine strange and memorable euents as touching the Bay tree, haue happened about *Augustus Caesar*. For *Luia Drusilla* (who afterwards by marriage with the said *Augustus*, became Emperesse, and was honored with the title of *Augusta*) at what time as she was affianced and espoused to *Caesar*, chanced as she sat still, to haue an exceeding white hen to light into her lap (which an *Ægle* flying aloft, let fall from on high) without any harme at all to the said pullet. Now when this lady or princeesse aduised & considered wel the hen, without being astonied and amazed at so strange & miraculous a sight, she perceiued that the hen held in her bill a Lawrell branch full of Bay berries. The *Wisards* and *Soothsaiers* were consulted withall about this wonderful occurrent, and gaue aduise in the end to preserue the bird and the brood therof likewise to set in the ground the foresaid branch, and duly to tend and look vnto it. Both the one and the other was done and executed accordingly, about a certain house in the country belonging to the *Caesars*, seated vpon the riuer *Tyberis*, neere the causey or port way *Flaminia*, about nine miles from Rome: which house therupon was called, *Ad Gallinas*, as a man would say, The signe of the Hens. Well, the foresaid branch mightily prospered, and proued afterwards to be a groue of Laurels, which all came from the first stock. In proceesse of time, *Augustus Caesar* when he

he entred in Triumph into Rome, caried in his hand a branch of that Bay tree, yea, and wore a chaplet vpon his head of the same: and so did all the Emperors and *Cæsars* his successors after him. Hereof also came the custome to set againe and replant those branches of Lawrel that emperors held in their hands, when they triumphed; & therof continue whole woods & groues distinguished each one by their seuerall names, and perhaps therefore were they named Triumphantall. This is the only tree known in the Latine tongue, whereof a man beareth the name. Againe, there is not another tree besides that hath the lease to cary in the Latine tongue a denomination and name by it selfe apart, as well as the tree: for whereas the plant is named *Laurus*, the lease we call *Laurea*. Moreouer, there is a place likewise within the city of Rome on mount Aventine, retaining still the name *Loretum*, which first was imposed vpon it by reason of a lawrell groue which grew there. The Bay tree also is vsed in solemne purifications before the gods: and to conclude, this would be resolved and agreed vpon by the way, That if a branch thereof be set, it will prosper and become a tree; although *Democritus* and *Theophrastus* make some doubt thereof. Thus much of Lawrels and other domesticall and native trees: it remaineth now to write of those that be wild and sauage, and of their natures.



THE SIXTEENTH BOOKE OF THE HISTORIE OF NATVRE,

WRITTEN BY C. PLINIUS
SECVNDVS.

The Proeme.



Hitherto haue we treated of those Trees that beare Apples and such like fruits: which likewise with their mild iuice and sweet liquors made our meats first delishsome, and taught vs to mingle together with the necessarie food for sustentation of our lines, that which maketh it delicate and pleasant to content our taste: as well those trees that naturallly were so in the beginning, as those which through the industry and skill of man, what by grafting and what by wedding them (as it were) to others, became toothsome, and delectable to our tongue: whereby also we haue gratified in some sort wild beasts, and done pleasure to the fowles of the aire. It followeth now by order, that we should discourse likewise of trees that beare Mast, those trees (I say) which ministered the first food vnto our forefathers, and were the nources that fed and cherished mankind in that rude wild age and poore infancy of the world: but that I am forced to break the course of mine history, and preuented with a deep study and admiration arising from the truth and ground of experience, to consider, What maner of life it might be, to liue without any trees or shrubs at all growing out of the earth.

CHAP. I.

¶ Of Nations that haue no Trees nor Plants among them. Of wonderfull trees in the Northerly regions.



¶ The Low countries of Zeland, &c.

MHe haue shewed heretofore, that in the East parts verily toward the maine Ocean, there be many countries in that estate, to wit, altogether destitute of trees. In the North also I my selfe haue seene the people called * *Cauchi*, as well the greater as the lesse (for so they be distinguished) where there is no shew or mention at all of any tree whatsoeuer. For a mightie great compassse, their Country lieth so vnder the Ocean, and

A and subiect to the tide, that twice in a day & night by turns, the sea ouer floweth a mighty deale of ground when it is flood, and leaues all dry again at the ebbe & return of the water: insomuch, as a man can hardly tell what to make of the outward face of the earth in those parts; so doubtfull it is between sea and land. The poore silly people that inhabit those parts, either keep together on such high hils as Nature hath afforded here and there in the plain: or els raise mounts with their own labor and handy work (like to Tribunals cast vp and reared with turf, in a camp) about the height of the sea, at any spring tide when the flood is highest; and thereupon they set their cabbins and cottages. Thus dwelling as they do, they seeme (when it is high water, & that all the plain is ouerspread with the sea round about) as if they were in little barks floating in the midst of the sea: againe, at a low water when the sea is gone, looke vpon them, you would take them for such as had suffered shipwracke, hauing their vessels cast away, and left lying afo-side amid the sands: for ye shall see the poore wretches fishing about their cottages, and following after the fishes as they go away with the water: they haue not a four-footed beast among them; neither inioy they any benefit of milk, as their neighbour nations do: nay, they are destitute of all means to chase wild beasts, and hunt for venison; in as much as there is neither tree nor bush to giue them harbor, nor any neare vnto them by a great way. Sea-weeds or Reike, rushes and reeds growing vpon the washes and meers, serue them to twist for cords to make their fishing nets with. These poore souls and silly creatures are faine to gather a slimy kinde of fatty mud or oase, with their very hands, which they drie against the wind rather than the Sun: and with that earth, for want of other fuell, they make fire to seeth their meat (such as it is) and heat the inward parts of their body, ready to be starke and stiffe againe with the chilling North winde. No other drink haue they but rain water, which they saue in certain ditches after a shower, and those they dig at the very entry of their cottages. And yet see! this people (so wretched and miserable a case as they be in) if they were subdued at this day by the people of Rome, would say (and none sooner than they) that they liued in slauerie. But true it is, that Fortune spareth many men, to let them liue still in paine and misery. Thus much as touching want of woods and trees.

DOn the other side, as wonderfull it is to see the mighty Forrests at hand thereby, which ouerspread all the rest of Germany: and are so big, that they yeeld both cooling and shade to the whole country: yea, the very tallest woods of all the rest are a little way vp higher in the country, and not farre from the *Cauchi* abouesaid: and especially those that grow about the two great loughes or lakes in that tract. Vpon the banks wherof, as also vpon the sea-coasts, there are to be seene thick rows of big Okes, that loue their seat passing wel, and thriue vpon it in growth exceeding much: which trees happening to be either vndermined by the waues and billowes of the sea vnder them, eating within their roots, or chased with tempestuous winds beating from aboue, carry away with them into the sea (in manner of Islands) a great part of the Continent, which their roots doe claspe and embrace: wherewith being counterpoised and ballasted, they stand vpright, floating and making saile (as it were) amid the waues, by the means of their mighty armes which serue in stead of tackling. And many a time verily, such Okes haue frighted our fleets and armadoes at sea, and especially in the night season, when as they seemed to come directly against their proes standing at anker, as if of purpose they were driuen vpon them by the waues of the sea: insomuch, as the sailers & passengers within, hauing no other means to escape them, were put to their shifts, and forced for to addresse themselves, and range a nauall battell in order, and all against trees, as their very enemies.

CHAP. II.

¶ Of the huge and great Forest Hercynia

IN the same North climat is the mighty Forrest Hercynia. A huge and large wood this is, stored with tall and big Okes, that neuer to this day were topt or lopt. It is supposed they haue been euer since the creation of the world, and (in regard of their eternall immortality) surmounting all miracles besides whatsoeuer. And to let passe all other reports which happely would be thought incredible, this is knowne for certain, That the roots of the trees there, run and spread so far within the ground, that they encounter and meet one another: in which resistance they swell and rise vpward, yea, and raise vp mounts of earth with them to a good height in

in many places: or, where as the earth follows not, a man shal see the bare roots embowed arch-wise, and mounting aloft as high as the very boughes: which roots are so interlaced, or els rub one against the other, striking (as it were) not to giue place, that they make a shew of great portales or gates standing open so wide, that a whole troupe or Squadron of horsemen may ride vp-right vnder them in ordinance of battell.

CHAP. III.

¶ Of trees bearing Mast.

MAst trees they were all, for the most part, which the Romanes euer so highly honoured and held in best account.

CHAP. IV.

¶ Of the Ciuicke garland: and who were honoured with chaplets of Tree-leaues.

From Mast trees (and the Oke especially) came the Ciuicke coronets. And in very truth, these were the most honorable badges and ornaments that could possibly be giuen vnto souldiers and men of war, in regard of their vertue and man-hood: yea, and now for a good while, our Emperors haue had this chaplet granted vnto them, in token and testimony of clemency: euer since that by our prophane and vnkind ciuill wars the world is grown to this passe, that it is reputed a singular demerit and gracious act, not to kill a citizen of Rome, but to let him liue. To this kind of garland, none other be comparable: for the Mural and Vallare coronets (bestowed vpon them that either skaled the walls, or entred the breach first into an enemy city, or els mounted ouer the rampier of a camp) albeit they were of gold, and of greater price by far, yet they gaue place to these. Yea, the very Nauall coronets, fashioned like the three forked pikes of ship beake-heads (wherewith they were honored, who had performed some braue seruice at sea) came behind these Ciuicke garlands, due to them who haue rescued citizens and saued them out of the enemies hands: and yet in these our daies there haue bin knowne two in that kind most renowned about the rest, whereof the one was bestowed vpon. *M. Varro* by *Pompey* the Great, for defeating the pyrats, and for scouring and clearing the seas of them: the other likewise giuen to *M. Agrippa*, by [*Augustus*] *Cesar*, for vanquishing the Sicilians, who also were no better than rouers.

Now forasmuch as we are light vpon the mention of Nauall or Rostrate coronets, this would be noted, That in old time the said brassen beake-heads of ships woon from the enemies, and set vpon the front of the Tribunall or publick pulpit in Rome, serued for an ornament to beautifie the Forum or common place of the city, so as the very body of the people of Rome seemed to be crowned and honored thereby. But after that the Tribunes in making seditious orations began to stamp and fare like mad men there, to trample (I say) vnder foot, and to pollute that sacred place and those goodly ensignes, after that they fel once euery man to make his priuat and particular profit of the common good, without regard to aduance the weale publick; after that each one sought to strengthen and arm himself by the benefit of authority, and that to the weakening of the main state, inso much as they who were reputed by their place sacrosanct and inuiolable, polluted and prophaned all: then the said ornaments of beake-heads, which beautified the place vnder their feet, serued to adorne the heads of Roman citizens. So as, to returne againe now to the aboue named *Agrippa*, *Augustus Caesar* gaue vnto him a Nauall coronet for subduing the Sicilian Pyrats: and himselfe receiued of mankind a Ciuicke chaplet, for sparing the bloud, and sauing the liues of so many citizens.

In ancient time they vied to crowne none but the gods. And hereupon it is, that the Poet *Homer* speaketh of no garlands and chaplets but due to the celestiall & heavenly wights, or at leastwise in the name of a whole army, for victory atchieued in some notable battell: for to one man alone he alloweth not any, no not in regard of the better hand in combat or single fight. And to say a truth, the first that euer set a Garland vpon his owne head, was prince *Bacchus*, and the same was made of Iuic: but afterwards, those that sacrificed to the honour of gods, not onely ware chaplets themselves, but also adorned therewith the heads of the very beasts which were appointed to be killed for sacrifice. In the end, the custome was taken vp to honour them with gar-

gar-

A garlands, whowan prizes at those sacred and solemne games, Olympia, Isthmia, Pythia, and Nemea. Howbeit the manner was then, and so continueth to this day, To giue chaplets to the said victors, not in their own name, but in the behalfe of their native country, which by open proclamation they pronounce to be crowned and honored thereby. And hereof it came also, that such coronets and chaplets were granted to them that should triumph, yea and soone after to those also who had won the prise in any publick games, vpon condition to dedicate them to the temple of the gods.

To discourse what Roman citizen receiued this honor first of a chaplet or coronet, were a long peece of worke, and nothing pertinent to our purpose and matter in hand; considering that they were acquainted with none at all, but in regard of seruice performed in the wars. Yet thus much I may auer for certain, That no nation vnder heauen, nay put them all together, can shew so many sorts of chaplets and coronets, as this one state and people of Rome. *K. Romulus* crowned *Hofstus Hoftilius* with a garland of bare greene leaues, for that in the forcing and ruining of Fidenæ, he brake first into the city and made way for the rest. This man was grandfire to *Tullus Hoftilius* king of Rome. Semblably in the war against the Samnites, wherein *Cornelius Cossus* the Confull was L. Generall, the whole army crowned *P. Decius* the father with a chaplet of green leaues, who then was a martiall Tribune or Colonell ouer a regiment of souldiers, for that hee had saued and deliuered the said army.

But now to come againe to our Ciuicke garland, it was made at first of the Ilex or Holme tree leaues: afterwards men tooke a better liking to make it of the *Æsculus*, a tree consecrated to *Iupiter*. They staid not there, but changed soone after with the common oke; neither made they any precise choise, but tooke the leaues of that which came next hand, wherefoeuer they found it growing; provided alwaies that it bare acorns: for all the honor of these garlands consisted principally in the mast. Moreouer, there belong to these Ciuicke garlands streight laws and ordinances, in which regard these chaplets be proud and stately: and we may be bold to compare them with that Paragon-coronet of the Greeks, which passeth al others, giuen solemnly and published in the presence of *Iupiter*, and made of the wilde Oliue dedicated vnto him: comparable (I say) to any crowne or chaplet whatfoeuer; euen to that, for which a city in token of ioy, would not stick to lay open a *breach in their very wall to receiue it when it should enter in. The lawes ordained in this behalfe run in this forme: *Imprimis*, He that is to enioy the honour of a Ciuicke chaplet, ought, first to haue rescued a citizen, and withall to kill the enemy in whose danger hee was. Item, It is required, That the enemies the same day held the verie ground and were Masters hereof, wherein the rescue was made and the seruice performed. Item, That the partie himselfe so saued, doe confesse the thing, for otherwise all the witnesses in the World auail not in this case. Item, the man thus deliuered, must bee a free Citizen of Rome in his hand: for set case that hee were a King which was thus rescued, if hee were a stranger, and came onely amongst the auxiliaries to aide the Romanes, it would not boot, nor gaine any man this honour for to saue his life. Item, Say that the Generall himselfe were rescued and deliuered out of danger, the partie for his good seruice should haue no more honour done vnto him, than if hee had preserved but a simple common souldier, so hee were a Romane Citizen: for the makers of these ordinances aimed chiefly at the life of a Citizen whofoeuer hee was, without regard of any other circumstance. Item, Uce that was once crowned with this garland, was endued also with these priuiledges: That hee might weare it alwaies after, whenfoeuer it pleased him: That so often as hee came in place of publicke plays or games, men should accustomably rise vp vnto him, yea, and the verie Senators themselves, doe him honour in that sort: That hee should haue his place allowed him to sit next vnto those of Senators degree: That both himselfe, and also his father and grandfire by the fathers side, should euer after bee exempt from all ciuile charges, and inioy full immunitie. Thus much concerning the lawes and priuiledges attending vpon the Ciuicke garland. *Siccus Dentatus* (as wee haue specified before) receiued foureteene of these chaplets for his good seruice: [*Manlius*] *Capitolinus* six, and hee verily had one of them for rescuing *Seruilus* beeing Generall of the Armie. As for *Scipio Africanus*, hee refused this honour when it was offered and presented vnto him, for sauing the life of his owne father at the iourney and battaile of Trebia. O the excellent orders and customes of those times, worthie of immortalitie and euerlasting memorie!

O the wisdom of men in those daies, who assigned no other reward for so braue exploits and singular workes, but honour onely? And whereas all other militarie coronets they enriched and adorned with gold, they would not fer the life of a citizen at any price. A plaine and euident

R r

profession

* As the manner was to receiue the Honoric.

profession of our ancestors and predeceffors, That it is an vnlawfull and shameful thing to seeme for to saue a mans life, in hope of any gaine and profit thereby.

CHAP. V.

¶ Of Mast, thirteene kinds.

Any nations there be euen at this day, and such as inioy peace and know not what warre meaneth, whose wealth and riches lyeth principally in Mast: yea and elswhere in time of dearth and for want of other graine, folke vse to dry their mast, grind it into meale, temper it with water, and thereof make dough for bread. Moreouer, euen at this day throughout Spaine, the manner is to serue vp acornes and mast to the table for a second seruice: and sweeter it is being roasted vnder the cinders and ashes, than otherwise.ouer and besides, provided it is by an expresse act and law of the twelue tables in Rome, that a man may gather the mast that falleth from his owne trees into another mans ground.

Diuers and sundry sorts there be of Mast, and their difference consisteth in the forme and fashion of the fruit, in the site and scituation of the place, in the sex, and in the taste: for the mast of the Beech tree is of one figure and making, the Acorne (which is the mast of the Oke) another; and the mast of the Holme or Ilex, differeth from them both: yea & in euery one of these kinds, they do vary one from another. Also, some are of trees growing wild; others more milde and gentle, louing places well tilled and ordered by husbandry. Some like the hilly countries, others the champaine and the plains. Semblably there is mast comming from the male trees: there is againe that groweth on the female. In like maner, the rellish & tast maketh a difference and diuersity in mast. The sweetest of all, is the Beech mast: for *Cornelius Alexander* reporteth, That the inhabitants of Chios, when they were streightly beleaguered, indured the siege a long time by the benefit & substance only of that mast. We are not able distinctly to specifie name by name, the sundry sorts of mast and the trees which beare the same, considering that in euery countrey they alter their names: for we see the Robur and the Oke to grow commonly euerie where, but the Esculus is not so rife in all countries. A fourth sort there is of the same kind, that is not known ordinarily in most places of Italy. We will therefore distinguish them according to their nature and properties: yea and when need shall require, by their Greeke names also.

CHAP. VI.

¶ Of the Beech mast, and other Masts: of Charcole, and the feeding of Hogs.

The Beech mast is like to the kernell of a Chestnut, inclosed within a three cornered skin. The leafe of the tree is thin and very light, resembling that of the Poplar: it turneth yellow passing soone. In the middle whereof, for the most part, and in the vpper side, it bringeth forth a little green berrie, pointed sharpe at the toppe. The mast of Beech, Rats and Mice are much delighted in: mark therefore when there is store of that mast, ye shal haue as great increase of that vermin. It will feed also Reremice or Dormice fat: and the Ousels or Blackbirds take a great liking thereto, and will flie vnto it. Lightly, all trees are most fruitful one yere than another, and beare most euery second yere; but aboue all, Beeches keepe this course. As touching Mast (which properly is so called) it groweth vpon the Robur, the common Oke, the Esculus, Cerrus, Ilex, and Cork tree. All kinds of mast are contained more or lesse, within a rough cup, which lieth close to the vrmost skin thereof, & claspeth it about. The leaues of all these mast trees, except the mast-Holme Ilex, be heauy, fleshie, large, waned or indented along the sides, neither be they yellow when they fall, as the Beech leaues are; longer also or shorter, according to the diuers trees whereupon they grow.

Of the Ilex or mast-Holme tree, there be two sorts. Those in Italy differ not much in leafe from the Oliue. Some Greeks call them Smilaces, but in other prouinces Aquifoliae. The mast of Ilex, both the one and the other, is shorter and slenderer than of the rest. *Homer* calleth it A-cylon, by which name he distinguisheth it from other mast. The male Holmes (men say) beare no fruit. The best mast and the biggest, is the Acorn growing vpon the common Oke: next to it is that of the Esculus: as for that of the Robur, it is but small. The Cerrus carieth a mast vnpleasant to the eye, and rough to be handled, for clad it is with a cup beset with sharpe prickles like

A to the Chestnut shell. Among the very Acornes, some haue a sweeter tast than others: the female Oke beareth those that be more soft and tender; the male, tough, thick, and massie: and the best simply are those that come of the broad leaved Oke, for so it is called by reason of the large leaues. Moreouer, there is another difference in mast and acornes, for some be bigger than others; againe, there are that haue thin and fine skins inclosing the kernel, and ye shal find others for them as thick skinned; likewise many of them are couered with a rough and rustie tunicle; and as many againe do shew immediatly their bare whiteskin and naked fleshy substance. Furthermore, that mast is accounted good, which at both ends (taking it long-waies) groweth hard in manner of a stone: howbeit that which hath an hard shell without, and a soft body within, is better than that which is hardened in the carnos substance of the body; and lightly neither of both these qualities happeneth to any but the male kind. ouer and besides, some you shal find fashioned long like an egge, others as round as a ball; and a third sort sharp pointed. The outward colour also yeeldeth variety: for some be blacker than other, but the whiter commonly be the better set by. Some are bitter toward the ends, and sweet in the mids. The length also & the shortnesse of the stele or taile whereto they hang, maketh a difference. The very tree it self causeth diuersity of the fruit: for that Oke which beareth the biggest mast, is named *Hemeris*. A shorter tree this is than the rest, with a round head, and putting forth many hollow arm-pits (as it were) of boughes and branches. The wood or timber of the ordinary and common Oke is tougher and harder than that of others, and lesse subiect to putrifaction: full of arms & boughes it is, as the other, but it groweth taller and is thicker in the body. The highest of all, is the *Egi-lops*, which loneth to grow in wild and desert places. Next to it for tallnesse, is the broad leaved Oke, but the timber thereof is not so good and profitable for building, howsoeuer it be imploied for to make charcole: yet being once squared to that purpose, & cleft, it is subiect to the worm, and will soon rot: and for this cause, being in quarters, they vse not to make cole of it clouen, but of the solid and round boughs or branches thereof. And yet this kind of charcole serueth only the Bloom-smithies and furnaces; the hammer-mills also of brasse and copper-smithies, whom it standeth in great good stead and saueeth them much sewell; for it burneth and consumeth no longer than the bellowes goe: let them leaue blowing once, presently the cole dieth; and so it lasteth long: for at euery new blast it is renewed againe and refreshed: otherwise it sparkleth very much and yeeldeth many cinders. But the charcole made of yong trees is the better.

D Now the maner of making them is this: when the wood is cut into many clefts & splents, fresh and green, they are heaped vp on high, and hollow, in manner of a furnace or chimney, and then well luted with clay in the top, and all about: which done, the pile of truncheons aforesaid, is set on fire within; and as the outward coat or crust of clay beginneth to wax hard, the workemen or colliers pierce it with poles and peaches, and make diuers holes therein for vent, and to let out the smokie vapor that doth sweate and breath from the wood. The worst of all other for timber or cole, is the oke named *Haliphleos*; a thicke barke it hath, and as big a body, but for the most part hollow and light like a sponge or mushrom: and there is not another besides it of all these kind of trees, that rotteth as it stands alieue. Besides, so vnfortunate it is, that the lightning smiteth it, as low as it groweth; for none of them ariseth to any great height: which is the cause that it is not lawfull to vse the wood thereof about the burning of any sacrifice. Seldome beareth it any Acornes, and those few that it hath, be exceeding bitter, so as no other beast will touch them but swine againe; nor they neither, but for pure hunger, when they can meet with no other food. Moreouer, in this regard also reiecteth it is, and not employed in any religious vse, for that without blowing at the wood and cole thereof continually, it will not burne cleare and consume the sacrifice, but goeth out and lieth dead.

But to returne vnto our mast againe: that of the Beech tree feedeth swine quickly, maketh their flesh and lard faire and pleasant to the eye, tender to be soone sodden or roasted, light and easie of digestion, and good for the stomacke. The mast of the Holme causeth hogs to gather a more fast and compact flesh, their bodies to be neat, slender, lanke, and ponderous. Acornes doe engender a fleshy substance, more square and spreading, and the same also most heauy and hardest of digestion, and yet they are of all other kinds of mast, most sweet and pleasant. Next to them in goodnesse (by the testimony of *Nigidius*) is that of the tree *Cerrus*, neither is there bred of any other a courser flesh, howbeit hard it is, fast, and tough. As for the mast of Ilex, hogs are endangered by eating thereof, vnlesse it be giuen them warily by little and little. Hee sayth

moreouer, that of all other it falleth last. Moreouer, the mast of Esculus, Robur, and the Corke, G causeth the flesh to be spongyous and hollow. To conclude, what trees soeuer beare mast, carry also certaine nuts called Galls: and lightly they are full of mast but each other yeare. But the oke Hemeris beareth the best galls, and fittest for the curriers to dresse their leather. The broad leaved Oke hath a kinde of Galls like vnto it, but lighter in substance, and not so good by far: it carrieth also blacke galls (for 2 sorts there be) and this is better for the dier to colour wooll,

CHAP. VII.

¶ Of the Gall-nuts: and how many other things Mast-trees doe beare besides Mast.

THe nuts called Galls, doe euer breake out all at once in a night, and namely about the beginning of Iune, when the Sun is ready to goe out of the signe Gemini. The whiter sort thereof commeth to the growth in one day: and if in the first spring and breaking forth thereof it be hot weather, it drieth and withereth out of hand, and commeth not to the full bignesse and perfection, namely to haue a kernell as much as a bean. The blacke of this kind continueth longer fresh and green, and groweth still, to the bignesse otherwhiles of an apple. The best galls be those of Comagena: the worst is that of the oke called Robur, which are knowne by the holes they haue, that may be seen through. The common oke Quercus, ouer and besides the fruit (which is the mast) beareth many other things; for it carrieth both sorts of gal, the black and the white: certaine berries also like Mulberries, but that they be dry and hard, resembling for the most part a bulls head, containing within them a fruit much like the kernels of the oliue. Moreouer, there grow vpon it certain little bals not vnlike to nuts, hauing soft flox within good to make candle-wick or matches for lamps; for burn they wil without any oile, like as the black Gals. It beareth also other little pills or balls good for nothing, couered ouer with haire, & yet in the spring time they yeeld a certain iuice or liquor like hony. Furthermore, there breed in the hollow arm-pits (as it were) of the boughes, other small pills setled or sticking close to the wood, and not hanging by any steles, which toward the nauill or bosome thereof are whitish; otherwife they be speckled all ouer with black spots, saue that in the mids between they are of a scarlet red colour: open them, and hollow they are within, but very bitter. Sometimes also this oke engendreth certain hard callosities, like Pumish stones, yea and other round balls made of the leaues folded one within another: on the backside also of the leafe where it is reddish, yee shall find sticking certain waterish pearls, white and transparent or cleare within, so long as they be soft and tender, wherein there breed little flies or gnats: howbeit in the end they ripen and wax harder, in manner of Galls.

CHAP. VIII.

¶ Of the Catkin called Cachrys: the graine of Scarlet: of Agaricke, and Corke.

THe Oke called Robur, bringeth forth likewise a certaine pendant chat or catkin, named in Greeke Cachrys: for so they terme the little pill, which is of a burning and causticke Nature, and whereof there is vse in Physick for potentiall cauteries. The like groweth vpon Firres, Larch trees, Pitch trees, Lindens of Tilletts, Nut-trees, and Planes, namely after that the leaues be fallne; and abideth vpon the tree in winter time. These chats haue a kernell within like to those of the Pine-nuts. It beginneth to grow in winter, & by the spring time al of it openeth and spreadeth to the prooffe; but when the leaues begin to bud and put forth, it falleth off. Thus you see how fruitfull these okes be, and how many things besides mast, they do bring forth: and yet they cease not nor giue ouer thus, for many times a man, shall see certaine excrescences growing forth about their roots, such as toad stools & mushrooms; the last denises that our gluttons haue inuented to whet their appetite and stomacke, and to maintaine gourmandize. The common Oke breedeth the best of this kind: as for those that grow about the Oke Robur, the Cypresse, and Pine-tree, they are hurtfull to be eaten, and venomous. Moreouer, Hesiodus saith, that the Okes Robora do beare Mifello, and yeeld hony. True it is indeed, that the hony-dewes called Manna, falling from heauen (whereof we haue spoken before) light not vpon any other leaues

A leaues more than of those okes. Moreouer, this is known for certain, that the ashes of this Oke when it is burnt, hath a quality or taste of nitre or salt-peter.

Howbeit for all the riches and fruit that the Oke affourdeth, the Scarlet grain alone which commeth of the Ilex, challengeth yea and ouermatcheth it. This graine is no other than a very excrement or superfluity arising about the stem of the small shrub called Ilex Aquifolia, scraped and pared off from it, like such refuse as they Cusculum or Quisquilium: but of such price it is, that the poore people of Spaine gather it, & make a good part of their reuenew thereby, euen as much as will pay halfe their tribute. As touching the commendable vse thereof in dying, we haue sufficiently spoken in the discourse of the purple tincture. This scarlet grain is ingendred also in Galatia, Africa, Pisidia, and Cicilia. But the worst of all other is that which commeth out of Sardinia.

B As for Agaricke, it groweth in France principally vpon trees that beare mast, in manner of a white mushroom: of a sweet sauer, very effectually in Physicke, and vsed in many Antidotes and foueraigne confections. It groweth vpon the head and top of trees: it shineth in the night, and by the light that it giueth in the darke, men know where and how to gather it.

Of all Mast-trees, the Oke called by the Greeks Ægylops, beare certaine drie excrescences, swelling out like Touch-wood, couered all ouer with a hoary & hairy mosse, and these not only beare out from the bark of the fruit, but also hang downe from the boughes a cubit in length: and odoriferous they are, as we haue shewed in our treatise of Ointments.

C Now concerning Corke, the woody substance of the tree is very small, the mast as bad, hollow, spongyous, and good for nothing. The barke only serueth for many purposes, which will grow again when the tree is barked, & that of such a thicknes, that it will beare 10 foot square. Much vse there is of it in ships, & namely for boys to ancre cables; also for flotes to trainels or dragnets that fishers do occupy: moreouer in bungs & stoppels of barrels, bottles, and such like vessels. Finally, our gentlewomen and dainty dames haue the soles of their pantofles & winter-shoes vnderlaid therewith. In regard of which barke, the Greeks call it by a pretty name, and not improperly, The bark tree, or the tree all barke. Howbeit some would haue it to be the female Ilex or Mast-Holm, and so they name it: and where there groweth no Ilex, in stead thereof they take Corke, especially in Carpentry, and cart-wrights worke, as about Elis and Lacedæmon. Neither groweth it in all parts of Italy, ne yet in any one quarter of France.

CHAP. IX.

¶ What trees they be that carry barke good for any vse.

THe peisants of the country and the rusticall people employ much, the barke also of Beeches, Lindens or Tilletts, Firs, and Pitch trees; for thereof they make sundry vessels, as paniers, baskets, and certain broad and wide hampers for to carry their corn and grapes in time of haruest and vintage, yea and otherwhiles they couer their cottages therewith. Moreouer, spies vse to write in barks (when they be fresh and greene) intelligences to their capitaines; grauing and drawing their letters so, as that the sap and iuice thereof couereth them. To conclude, the bark of the Beech tree is vsed in certain religious ceremonies of sacrifice: but when the tree is spoiled of the bark, it soone fadeth and dieth.

CHAP. X.

¶ Of Shindles: of the Pine tree, the wilde Pine, the Fir, Pitch tree, Larch tree, Torch tree, and the Tew.

THe boulds or shindles of the wild Oke called Robur, be of all others simply the best: and next to them, those which are made of other mast-trees, and especially of the Beech. The shindles are most easily rent or clouen out of all those trees which yeeld Rosin, but setting aside the Pine-wood only, none of them are lasting. Cornelius Nepos writeth, that the house in Rome were no otherwise couered ouer head but with shindles, vntill the war with K. Pyrrhus, to wit, for the space of 470 yeres after the foundation of the city: and of a truth, the chiefe quarters of Rome were diuided & distinctly named by certain woods and groues neere adioining. And euen at this day there remaineth the quarter of Iupiter Fagutalis, where sometime stood a tuft or groue

groue of Beeches: also the gate *Querquetulana*, bearing the name of an Oke row: likewise the hill *Viminalis*, from whence they vsed to fetch windings and bands of Officers: and many other groues, whereof some were set double, and were two of a name. We reade in the Chronicles, that *Q. Hortensius*, Dictator for the time being, (when as the commons arose, and in that mutinie or insurrection forsooke the city and withdrew themselves to the fort *Ianiculum*) made a law & published it within a certain groue hard by, called *Esculetum*, where there grew a number of trees named *Esculi*: and the said statute ran in this forme, That whatsoever ordinance should be enacted by the said Commonaltie, it should bind all Citisens of Rome whomsoever to obserue and keepe.

In those daies the Pine and Fir, and generally all trees that yeeld pitch, were held for strangers and aliens, because none of them were knowne to grow neere vnto the city of Rome: where of now we will speake, the rather because the beginning & whole maner of confection and preserving wines might be thereby thoroughly knowne. First and formost, some of the trees aforesaid in Asia or in the East parts do bring forth pitch. In Europe there be six sorts of trees, seeming all of one race, which yeeld the same. Of which, the Pine and the Pinaster cary leaues thin and slender in manner of haire, long also and sharp pointed at the end. The Pine beareth least rosin of all others, howbeit otherwise some it hath in the very fruit thereof, which we call Pine nuts or apples (whereof we haue already written) yet so little it is, that hardly a man would reckon the Pine among those kinde of trees that yeeld rosin. The Pinaster is nothing els but the wild Pine: it growes wonderful tall, putting forth arms from the mids of the trunk or body upward; whereas the other Pine brancheth only in the head. This of the twain is more plentifull in rosin, whereof we will speake more anon. These wild Pines grow also vpon plains. There be trees vpon the coast of Italy, which men call *Tibuli*, and many think they be the same, although they carry another name: slender they are and shorter, altogether without knots, and little Rosin they haue in them or none: but they serue well for shipwrights, to build frigats & brigandines.

The Pitch tree loueth the mountains and cold grounds, a deadly and mournful tree it is, for they vsed in old time to sticke vp a branch thereof at the dores of those houses where a dead corps was, to giue knowledge therof abroad: and commonly it grew green in churchyards and such places, where the maner was to burn the bodies of the dead in funeral fires: but now adays it is planted in courtyards and gardens neer our houses, because it may be easily kept with cutting and shredding, it brancheth so well. This tree puts forth great abundance of rosin, with white grains or kernels comming between; so like vnto frankincense, that if it be mixt therewith, vneth or hardly a man may discern the one from the other by the eye. And hereupon it cometh, that Druggists and Apothecaries do sophisticate frankincense, and deceiue folk with it. All the sort of these trees are leaued with short thick and hard prickly bristles in manner of the Cypres. The Pitch tree beginneth to shoot forth branches euen from the very root almost, and those be but small, bearing out like armes, and sticking one against another in the sides. Semblably do the Fir trees, which are so much sought for to serue shipping: and yet this tree delighteth in the highest mountains, as if it fled from the sea of purpose, and could not away with it: and surely the form and maner of growing is all one with the pitch tree. The wood thereof is principal good timber for beams, and fitteth our turn for many other necessities of this life. Rosin if it be found in the Fir is thought a fault in the wood, whereas the only commoditie of the pitch tree is her rosin; and yet sometime there frieth and sweateth out a little thereof in the extreme heate of the sun. The timber of them both is not alike, for that of the Fir is most faire and beautifull; the pitch tree wood serueth only for clouen lath or rent shindles, for coopers to make tubs and barrels, and for some few other thin boards and painels.

As for the Larch tree, which is the sixt kind, of those that beare rosin, like it is to the rest, and loueth to grow in the same places; but the timber is better by ods, for it rots not, but will last and endure a long time: the tree will hardly be killed: besides, it is red of colour, & carries an hotter and stronger smell than the other. There is sueth forth of the tree as it growes, good store of liquid rosin, in colour like hony, somewhat more clammy, which will neuer grow to be hard.

A sixt sort there is of these trees, and it is properly called *Teda* [i. the Torch tree], the same yeelds more plenty of moisture and liquor than the rest: lower it is of growth than the Pitch-tree, but more liquid and thin: very commendable also to maintain fire at sacrifices, & to burn in torches for to giue light. These trees, I mean the male only, bring forth that strong and stin-

G
H
I
K
L
M

A king rosin, which the Greeks call *Syee*. Now if it happen that the Larch tree proue *Teda*, [i. to be Torch-wood] it is a signe that it doth putrifie and is in the way of dying.

The wood of all these kinds before named, if it be set a fire, maketh an exceeding grosse and thick smoake, and presently turneth into a cole, spitting and sparkling a far off; except that only of the Larch tree, which neither burneth in light flame, nor maketh cole, ne yet consumeth in the fire otherwise than a very stone.

All these trees whereof we speake continue greene all the yeare long: and very like they are in leafe, that men otherwise of cunning and good experience, haue enough to do to discern one from the other by it, so neere of kin they be, and their race so much intermingled. But the pitch tree is not so tall as the Larch: for the Larch is thicker in body, of a thinner and lighter barke, more shag leaued, and the said leaues fatter, growing thicker, more pliable, and easier to wind and bend: whereas the leaues of the pitch tree hang thinner, they be of a drier substance, more slender and subiect to cold: and in one word, the whole tree is more rough and hideous to see to, and withall, full of rosin: the wood also resembleth the Firre, rather than the Larch.

The Larch tree, if it be burnt to the very stumpe of the root, will not spring againe and put forth new shoots: whereas the pitch tree liueth stil for all the fire, and wil grow afresh: the experience whereof was seen in the Island *Lesbos*, at what time as the Forrest *Pyrhæum* was set on fire, and clean burnt to the ground.

Moreover, euery one of these kinds differ in the very sex: for the male of each kind is shorter and harder: the female taller, hauing fatter leaues, and the same soft and plain, & nothing stiff and rugged. The wood of the male is tough, and when it is wrought keepeth not a direct grain, but windeth and turneth, so as the carpenter must goe euery way about it with axe and plaine: contrariwise that of the female is more firm and gentle. And commonly the axe or the hatchet wil tell the difference of male and female in any tree; for what wood soeuer it be, it will soone find and feele the male: for hardly is it able to enter, but either turnes edge, or rebounds againe: and whether a man hew or cleaue withall, it maketh more crafhing and a greater noise where it setteth and taketh hold; it sticketh also faster, and with more ado is plucked forth. Moreover, the very wood of any male tree is of a more brown and burnt colour, yea, and the root of a blacker hew.

About the Forrest *Ida* within the territory of *Troas*, there is another distinction of trees in the same kind: for some grow vpon the mountaines, others toward the coast on the sea side. In *Macedony*, *Arcadia*, and about *Elis*, these trees eftsoons change their names, so that the Greek writers are not agreed how to distinguish their several sorts, and range them in their due kind. I therefore haue exprest them according to the iudgment of Roman and Latine Authors.

Of all the trees aboue named, the Firs surpass for bignesse, and the femals are the taller. The timber also is more firm and soft, more profitable also, and easier to be wrought: the tree it self rounder, and so it brancheth archwise: the boughes as they resemble wings stretched out and displayed, so they stand so thicke with leaues, that they will beare off a good shower, inasmuch as no rain is able to pierce through. In sum, the female Firre is far more louely and beautifull euery way than the male.

All the sort of these foresaid trees, saue onely the Larch, beare certain knobs like Catkins or *Chats*, composed (as it were) of many scales wrought one ouer another, and those hang downe dangling at the branches. These knobs or clogs in the male Firre haue in the vpper end a kernel within: but those of the femal haue no such thing. Moreover, the pitch tree as it hath such catkins lesse and slenderer; so all within, from one end to the other, the kernels be passing little and black withall, like to lice or fleas, which is the reason that the Greekes call it *Phthirophoros*. The said catkins of the male pitch trees are more flat, and nothing so round as those of the females, lesse gummie also, and not so moist of the rosin.

To come now to the Yugh, because we would ouerpasse none: it is to see to like the rest, but that it is not so green; more slender also and smaller, vnpleasant and fearefull to looke vpon, as a cursed tree, without any liquid substance at all: and of these kind of trees, it alone beares berries. The fruit of the male is hurtful: for the berries in Spain especially haue in them a deadly poison. And found it hath bin by experience, that in France the wine bottles made thereof for wayfaring men and trauellers, haue poisoned and killed those that drunke out of them. *Sestius* saith, That the Greekes call it *Smilax*: and that in *Arcadia* it is so venomous, that who soeuer take

F

take either repose or tēpast vnder it, are sure to die presently. And hereupon it commeth, that those poisons wherewith arrow heads be inuēomed, after some were called in times past Taxica, which wee now name Toxica. But to conclude, it is seen by good prooffe, that if a brassen wedge or spike be driuen into the very body of the tree, it loseth all the venomous nature, and becommeth harmlesse.

CHAP. XI.

¶ *How to make all kinds of Pitch. The manner how Cedrium is made. Also, of thicke Pitch, how it is made; and in what sort Rosin is boiled.*

The liquid Pitch or Tar throughout all Europe is boiled out of the Torch tree: and this kind of pitch serueth to calke ships withall, and for many other vses. Now the manner of drawing Tarre out of this tree, is, to cut the wood thereof into pieces, and when they are piled vp hollow into an heape, to make a great fire within, as it were vnder a furnace, being claid without-forth: thus with the heate of the fire it doth fry and seeth again. The first liquour that sweateth and issueth forth runneth cleare as water, in a channell or pipe made for the purpose, and this the Syrians call Cedrium: which is of such force and efficacy, that in Egypt they vse to embalm the dead bodies of men and women departed, and keep them from putrefaction. At the next running it is thicker, and this second liquor is very pitch. Howbeit this is cast again into certaine coppers or cauldrons of brasse, and together with vineger sodden a second time, vntill it come to a thicke * consistence: and when it is thus thickened, it taketh the name of Brutian pitch, good only for tuns, barrells, and other such vessels. Much like it is to the former pitch, but that it is more glutinous and clammy, redder also of colour, and more fatty. And thus much concerning the pitch made of the Torch tree.

As for that which comes of the pitch tree, the rosin thereof is drawne with red hot stones in certain vessels made of strong and thicke oken planks: or in default thereof, the wood is clouen into pieces, and piled together after the order of a charcole hearth, & so the pitch boiles forth. The vse hereof when it is beaten into a kind of meale or pouder, is to be put into wine, and it is of a blacker colour than the rest. The same pitch-rosin, if it be boiled more lightly with water, and be let to run through a strainer, comes to a reddish colour, and is glewie: and thereupon it is called skilled Pitch. And for this purpose lightly, is set by the more grosse and faultie substance of the rosin, together with the bark of the tree. But there is another composition and manner of making of pitch, that serueth for heady wine, called Crapula. For the floure of the Rosin is taken green and fresh, as it distilleth from the tree, together with a good quantitie of small, thin, and short spils or chips of the tree plucked away with the same: the same are minced or shred so small, as they may passe through a sieue or a riddle: which don, all is put into scalding water, and there boileth vntill it be incorporate with the water. The fat substance that is strained and pressed from hence, is the excellent pitch Rosin, hard to come by, and not to be found in Italy, vnlesse it be in few places vnder the Alps, and very good it is in physick. Now to make it passing white, there must be taken one gallon of the rosin, & sodden in two gallons of rain water. But some think it the better way to seeth it a whole day together at a soft fire, without any matter at all, in a pan or vessell of Latton. Others there be likewise that boile Turpentine in a hot frying pan, and are of opinion, that this is the best of all others. And the next to it in goodnessse is the Lentiske rosin, called Mastich.

CHAP. XII.

¶ *Of the Pitch Zopissa, which is scraped from ships: and of Sapinum. Also what trees are in request for their timber.*

It would not be forgotten, that the Greeks haue a certaine Pitch, scraped together with wax from the ships that haue lien at sea, which they Zopissa (so curious are men to make experiments and try conclusions in euery thing:) and this is thought to be much more effectuell for all matters that pitch and rosin are good for, by reason of the fast temperature that it hath gotten by the salt water.

For

A For to draw rosin out of the * Pitch-tree, it must be opened on the Sun side, not by giuing a slit or gash in the bark, but by cutting out a peece thereof, so that the tree may gape and lie bare two foot at the most: and from the earth, this wound to be at least a cubite. Neither doe they spare the entire bodie and wound of the tree, as they do in the rest: for there is no danger thereof, considering that the very chips of the wood being cut out, are full of liquor, and do serue to make pitch. But the nearer that the said ouerture or hole is made to the earth, the better is the rosin that issues forth: for if it be higher it is better. When this is don, all the humor afterwards runneth to the vicer or incision aforesaid, from euery part of the tree. The like it doth in the Torch pine. When it hath left running to the first hole, there is a second likewise made on another side, and so still is the tree opened euery way: vntill at length tree and all is hewn downe, and the very pith and marrow thereof serueth for Torch wood to burne. Semblably, in Syria they vse to plucke the barke from the Terebinth: yea, and they pill the boughes and roots too for Turpentine, how soeuer in other trees the rosin issuing out of those parts, is not counted good, in Macedonie the manner is to burne the male Larch, but the roots onely of the female for to draw out pitch. Theopompus wrate, that there is found in the territorie of the Apolloniats, a kind of minerall pitch, called Pissaspaltum, nothing inferiour in goodnesse to the Macedonian.

The best pitch in all countries, is that which is gathered from trees, standing vpon the North wind, and in places exposed to the Sunne-shine. As for that which commeth from shadowie places, it is more vnpleasant to the eie, and carieth besides a strong and stinking sauer. If it bee a cold and hard winter, the pitch then made is the worse, there is also lesse store of it, & nothing is it so well coloured. Some are of opinion, That the pitch issueth in more abundance out of trees in the mountaines, also that it is better colored, sweeter in taste, more pleasant also in smell, namely, while it is raw pitch-rosin, and as it runneth from the tree: but if it be boiled, it yeelds lesse plentie of pitch than that which commeth of trees in the plain, and runneth all into a thin liquor in manner of whey, yea, and the very trees themselves are smaller. But both the one and the other, as wel the mountain pines and pitch-trees, as those of the plaines, yeeld not so much pitch in a faire and drie season, as when the weather is rainy and full of clouds. Moreover, some there be of these trees that yeeld forth fruit (which is their rosin) the very same yere that immediately followeth their incision; others, two yeares after; yea, and some again in the third yere. As for the incision or open wound that is made, it filleth vp with rosin: for neither doth it fouler or vnte in manner of a skar, ne yet closeth the barke againe: for in this tree, being once diuided it will neuer come together and meet.

Among these trees, some haue reckoned one kind by it selfe named Sapium, because it is replanted and groweth of some of the sions or imps of the said trees, in maner as hath been shewed before in our treatise of nut-kernels. The neather parts of which tree they call Teda [i. Torch-wood:] whereas indeed this tree is no other than the Pitch-tree, brought to a more mild and gentle nature by transplanting. As for that which the Latines call Sapinus, it is nothing else but the wood or timber of these kinde of trees, being hewed or cut downe, as well * hereafter declare in place conuenient.

* Chap 29 of his booke.

CHAP. XIII.

¶ *Of the Ash, foure kinds thereof.*

There be many trees besides that Nature hath brought forth, only for their wood and timber: and among them the Ash, which of all others, growes most plentifully in euery place. A tall tree this is & grows round, bearing leaues set in maner of feathers or wings; much ennobled by the praise and commendation that the Poet Homer giueth it, as also for the speare or lance of Achilles, made thereof. And in very truth, the wood serueth right well for many vses. As for the timber of the ash, growing vpon the Forrest Ida in Troas, it is so like the citron wood, that when the barke is off, a man may hardly discern the one from the other, inso much, as the merchants and chapmen are deceived therewith.

F The Greekes haue made two kinds of the Ash: the one runneth vp tall and euen without a knot: the other is lower, more tough and hard, and withall, of a more browne and dusky color: and the leaues resemble the Lawrell. In Macedony they haue an Ash, which they call Bumelia, which of all other is the tallest and biggest, the wood thereof is most pliable and bending. Others

thers haue put a difference betweene Ashes, according to the places: for that of the plaine and champion countrey, hath a more curled or frilled graine than the other of the mountaines, but contrariwise, the wood of this is more compact and harder than the other. The leaues of this tree, according to the Greeks, are hurtfull, venomous and deadly to Horses, Mules, and such laboring garçons; but otherwise to beasts that chew the cud, they be harmlesse. Howbeit, in Italy if horses, &c. do brouse of the leaues, they take no harme thereby. Moreouer, they be excellent good, and nothing so soueraigne can be found against the poison of serpents, if the iuice thereof be pressed forth and giuen to drinke; or to cure old vlcers, if they be applied and laid thereto in manner of a Cataplasme: nay, so forcible is their vertue, that a serpent dareth not come neare vnto the shadow of that tree, either morning or euening, notwithstanding at those times it reacheth farthest; you may be sure then they will not approach the tree it selfe, by a great way. And this am I able to deliuer by the experience which I haue seene, that if a man doe make a round circle with the leaues thereof, and enuiron therewith a serpent and fire together within, the serpent will chuse rather to go into the fire, than to flie from it to the leaues of the Ash. A wonderfull goodnesse of dame Nature, that the Ash bloometh and flourisheth alwaies before that serpents come abroad; and neuer sheddeth leaues, but continueth greene, vntill they be retired into their holes, and hidden within the ground.

CHAP. XIII.

¶ Of the Line or Linden tree, two sorts thereof.

Great difference there is euery way between the male & female Linden tree: for, the wood of the male is hard and knottie, of a redder colour also, and more odoriferous than the female. The barke moreouer is thicker, and when it is plucked from the tree, it is stiffe, and will not bend. It beareth neither feed nor floure, as the female doth: which also is rounder and bigger in bodie, and the wood is whiter, more faire and beautifull by farre than is the male. A strange thing it is to consider, that there is no liuing creature in the world will touch the fruit of the Linden tree, and yet the iuice both of leaf and barke is sweet ynough. Between the bark and the wood of this tree there be thin pellicles or skins lying in many folds together, whereof are made bands & cords called Brazen ropes. The finest of these pellicanes or membrans serued in old time for to make labels and ribbands belonging to chaplets, and it was reputed a great honor to weare such. The timber of the Linden or Tillet tree will neuer be worm-eaten. * The tree it selfe is nothing tall, but of a meane height, howbeit the wood is very commodious.

CHAP. XV.

¶ Ten kinds of the Maple tree.

The Maple in bignesse is much about the Linden tree: the wood of it is very fine and beautifull, in which regard, it may be raunged in the second place, and next to the very Citron tree. Of Maples there be many kinds: to wit, the white, and that is exceeding faire and bright indeed, growing about Piemont in Italie, beyond the riuer Po, & also beyond the Alps, and this is called the French Maple. A second kind there is, which hath a curled graine running too and fro with diuers spots; the more excellent worke whereof, resembling the eies in the Peacocks taile, thereupon took also the name. And for this rare and singular wood, the countries of Istria and Rhetia be chiefe. As for that which hath a thicke and great graine, it is called Crassiuenum of the Latines, and is counted to be of a baser kind. The Greekes distinguish Maples by the diuerse places where they grow. For that of the champion or plaine countrey (which they name Glion) is white, and nothing crisped: contrariwise, the wood of the mountaine Maple is harder and more curled, and namely, the male of that sort, and therefore it is in great request for most exquisite and sumptuous workes. A third sort they name Zygia, which hath a reddish wood, and the same easie to cleaue: with a barke of a swert colour, and rough in handling. Others would haue it to be no Maple, but rather a tree by it selfe, and in Latine they call it Carpinus.

CHAP.

CHAP. XVI.

¶ Of the Bosses, Wennes, and Nodosities, called Bruscum and Molluscum.
Of the wild Pistike or Bladder nut-tree called Staphylodendron: also three kinds of the Box tree.

The bunch or knurre in the Maple, called Bruscum, is passing faire, but yet that wich is named Molluscum, excelleth it. Both the one and the other swell like a wen out of the Maple. As for the Bruscum, it is curled and twined after a more crawling and winding manner; whereas the Molluscum is spread with a more direct and strait course of the grain. And certes, if there might be planks hereof found broad enough to make tables, doubtlesse they would be esteemed and preferred before those of the Citron wood. But now it serueth only for writing tables, for painels also and thin bords in wainscote work, to set out beds heads and seelings, and such are feldome seen. As for Bruscum, there be tables made of it inclining to a blackish color. Moreouer, there be found in Alder trees such nodosities; but not so good as those, by how much the wood of the Alder it selfe is inferior to the Maple, for beauty and costlines. The male Maples do put forth leaues and flourish before the female. Yea, and those that grow vpon dry grounds are ordinarily better esteemed than those of moist and waterish places, in like sort as the ashes.

Beyond the Alps there is a kind of bladder Nut-tree; whereof the wood is very like to the white white Maple, and the name of it is Staphylodendron. It beareth certain cods, and within the same, kernels in tast like the Filbert or Hazell-nut.

Now for the Box tree, the wood thereof is in as great request as the very best: seldom hath it any grain crisped damask-wise, and neuer but about the root, the which is dudgein and full of work. For otherwise the grain runneth streight and euen without any wauiug: the wood is sad enough and weighty: for the hardnesse thereof and pale yellow colour much set by and right commendable. As for the tree it selfe, gardeners vse to make arbors, borders, and curious works thereof. Three sorts there be of the Box tree: the first is called the French Box, it groweth taper-wise, sharp pointed in the top, and runneth vp to more than ordinarie height. The second is altogether wild, and they name it Oleastrum, good for no vse at all, and besides carieth a strong and stinking sauer with it. The third is our Italian box, and so called. Of a sauage kind I take this to be also: howbeit by setting and replanting brought to a gentle nature. This spreadeth and brancheth more broad, and herewith a man shall see the borders and partitions of quarters in a garden, growing thiek and green all the yeare long, and kept orderly with cutting and clipping. Great store of box trees are to be seen vpon the Pyrenæan hills, the Cytorian mountains, and the whole Berecynthian tract. The thickest and biggest Box trees be in Corsica, and they beare a louely and amiable floure, which is the cause that the hony of that Island is so bitter. there is not a beast that will eat the fruit or grain thereof. The Boxes of Olympus in Macedonie are more slender than the rest, and but low of growth. This tree loueth cold grounds, yet lying vpon the Sun. The wood is as hard to burn as iron: it will neither flame nor burn cleare it selfe, nor serue to make charcole of.

CHAP. XVII.

¶ Of the Elme four kinds.

Between these wild trees abovesaid, and those that bear fruit, the Elm is reckoned of a middle nature, in regard of the wood and timber that it affords, as also of the friendship & acquaintance that it hath with vines. The Greekes acknowledge two sorts thereof, namely, one of the mountains, which is the taller and the bigger; and the other of the plaines & champion, which is rather more like a shrub, the branches that it shooteth forth are so smal and slender. In Italy men hold the Elmes about Atinum to be the tallest, and of those they prefer them which grow in dry grounds, and haue no water comming to them, before those by riuers sides. A second sort of them, which are not all out so great, they call the French Elmes. The third kinde be the Italian Elmes, thicker growne with leaues than the rest, and those proceeding in greater number from one stem. In the fourth place be ranged the wilde Elmes. The Atinian Elmes

* Pliny herein is deceived. For the Line Tree with vs is comparable to the highest Oakes in tallnesse.

Elmes abovesaid beare no Samara (for so they cal the seed or grain of the Elme.) All the kind G of them are planted off sets taken from the roots, whereas others come of seeds.

CHAP. XVIII.

¶ The nature of trees as touching the place where they grow.

HAVING thus discoursed in particular of the most famous and noble trees that are, I think it not amisse to say somewhat of their natures in generall. And first to beginne with the mountain high countries: the Cedar, the Larch, and the Torch-tree loue to grow among the hills; like as all the rest that ingender rosin: semblably, the Holly, the Box tree, the Mast-Holme, the Iuniper, the Terebinth, the Poplar, the wilde Ash Ornus, the Cornell tree, and the Carpin. Vpon the great hill Apennine there is a shrub named Cotinus, with a red or purple wood, most excellent for in-laid works in Marquetry. As for Firs, the wild hard oaks (Robora) Chestnut trees, Lindens, Mast-holmes, and Cornell trees, they can away with hills and vallies indifferently. The Maple, the Ash, the Seruis tree, the Linden, and the cherry tree, delight in the mountains neere to waters. Lightly a man shall not see vpon any hills, Plum trees, Pomegranat trees, wild Oliues, Walnut trees, Mulberry trees, and Elders. And yet the Cornel tree, the Hase, the common Oke, the wild Ash, the Maple, the ordinary Ash, the Beech, and the Carpin, are many times found to come downe into the plaines: like as the Elme, the Apple tree, the Peare tree, the Bay tree, the Myrtle, the Bloud shrubs, the Holme, and the Broome (which naturally is so good for to dry clothes) do as often climbe vp the mountains. The Seruis tree gladly groweth in cold places, so doth the Birch, and more willingly of the twaine. This is a tree which is meere French, and came first out of France: it sheweth wonderfull white, and hath as fine and small branches or twigs, which are so terrible to the offenders, as wherewith the Magistrates are made for to execute justice. And yet the wood of this tree is passing good for hoopes, so pliable it is and easie to bend: the twigs thereof serue also for to make paniers and baskets. In France they vse to boile the wood, and thereof draw a glutinous and clammy slime in maner of Bitumen. In the same quarters there loueth to grow for company the white thorn, which in old time they were wont to burne for torches at weddings, and it was thought to be the most fortunate and lucky light that could be deuised, because (as *Massurius* reporteth) the Romane shepheards and herdmen who rauished the Sabine maidens, were furnished euery one with a branch thereof to make them torches. But now adaies the Carpine and Hazel are commonly vfed for such nuptial lights. The Cypress, walnut, Chestnut trees, and the Laburnum, cannot in any wise abide waters. This last named is a tree proper to the Alps, not commonly known: the wood thereof is hard and white: it beares a blossom of a cubit long, but Bees will not settle vpon it. The plant likewise called Iouis Barba, so handfome to be cut in arbors and garden works, which groweth so thicke and round withall, full of leaues, and those of a siluer colour, hates waterie places. Contrariwise, Willows, Alders, Poplars, and Osiers, & the Privet which is so good for to make dice, will not grow well and prosper but in moist grounds. Also the Vacinia or Whortles, set and sowed in Italy for the Fowlers to catch birds withall; but in France for the purple colour, wherewith they vse to dye clothes for their seruants and slaues.

To conclude, this is a generall rule, What trees soeuer will grow indifferently as well vpon hills as plaines, arise to be taller, bigger, and carry a fairer head to see to in the low champion grounds: but timber is better, and carries a more beautifull grain vpon the mountaines, except only Apple trees and Pyrries.

CHAP. XIX.

¶ A diuision of Trees according to their generall kinds.

MOREouer, some trees lose their leaues, others continue alwaies green. And yet there is another difference of trees before this, and whereupon this dependeth. For trees there be which are altogether wild and sauage: there be again which are more gentle and ciuill: and these names me thinks are very apt to distinguish them. Those trees therefore which are so kind and familiar vnto vs, as to serue our turns either with their fruit which they bear, or shade which they yeeld, or any other vertue or property that they haue, may be very aptly and fitly be called ciuill and domesticall.

CHAP.

CHAP. XX.

¶ Of Trees that neuer shed their leaues: also of *Rhododendron*.

AMONG these trees and plants which are of the gentle kind, the Olive, the Lawrel, the Date tree, Myrtle, Cypress, Pines, Ivy, and the Oleander, lose not their leaues. As for the Oleander, although it be called the Sabine herb, yet it commeth from the Greeks, as may appeare by the name *Rhododendron*. Some haue called it Nerion; others *Rhododaphne*: it continueth alwaies green leaved, beareth floures like roses, and brancheth very thicke. Hurtfull it is and no better than poison, to Horses, Asses, Mules, Goats, and Sheepe; and yet vnto man it serueth for a countrepoyson, and cureth the venom of serpents.

CHAP. XXI.

¶ What trees shed not their leaues at all: which they be that lose them but in part: and in what countries all trees are euer greene.

OF the wild sort, the Fir, the Larch, the wilde Pine, the Iuniper, the Cedar, the Terebinth, the Box tree, the Mast-holme, the Holly, the Cork tree, the Yew, and the Tamariske, be green all the yeare long. Of a middle nature between these two kinds aboue named, are the *Adrachne* in Greece, and the Arbut or Strawberry tree in all countries: for these lose the leaues of their waterboughs, but are euer green in the head. Among the shrubs kind also there is a certain bramble and Cane or Reed, which is neuer without leaues. In the territorie of *Thuriu* in Calabria, where sometime stood the city *Sybaris*, within the prospect from the said *Citie*, there was an Oke about the rest to be seen, alwaies green and full of leaues, and neuer began to bud new before Midsummer: where by the way I maruel not a little, that the Greek writers deliuered thus much of that tree in writing, and our countrymen afterwards haue not written a word thereof. But true it is, that great power there is in the clymat, inso much as about *Memphis* in Egypt, and *Elephantine* in the territorie of *Thebais*, there is not a tree, not so much as the very Vine, that sheddeth leaues.

CHAP. XXII.

¶ The nature of such leaues as fall from trees: and what leaues they be that change colour.

ALL trees without the range of those before rehearsed (for to reckon them vp by name particularly were a long and tedious piece of work) do lose their leaues in winter. And verily this hath bin found and obserued by experience, that no leaues doe fade and wither, but such as be thinne, broad, and soft. As for such as fall not from the tree, they be commonly thick skinned, hard, and narrow: and therefore it is a false principle and position held by some, That no trees shed their leaues which haue in them a fatty sap or oleous humiditie: for who could euer perceiue any such thing in the Mast-holme? a drier tree there is not, and yet it loseth alwaies green. *Timaeus* (the great Astrologer and Mathematician) is of opinion, that the Sun being in the signe *Scorpio*, he causeth leaues to fall, by a certain venomous and poysoned infection of the aire, proceeding from the influence of that malignant constellation. But if that were true, we may wel iustly maruell, why the same cause should not be effectually likewise in all other trees. Moreouer, we see that most trees do let fall their leaues in Autumne: & some are longer ere they shed, continuing green vntill winter be come. Neither is the timely or slow fall of the leafe long of the early or late budding: for wee see some that burgen and shoot out their spring with the first, and yet with the last shed their leaues and become naked: as namely the Almond trees, Ashes, and Elders. And contrariwise the Mulberry tree putteth forth leaues with the latest, and is one of them that soonest sheddeth them again. But the cause hereof lies much in the nature of the soile: for the trees that grow vpon a leane, dry, and hungry ground, do sooner cast leafe than others: also old trees become bare before yonger; and many of them also lose their leaues before their fruit be fully ripe: for in the Fig tree, that commeth and beareth late, in the winter *Pyrry*, and Pomegranate, a man shall see in the later end of the yere fruit only

only, and no leaues vpon the tree. Now as touching those trees that continue euer greene, you must not think that they keep still the same leaues, for as new come, the old wither & fall away: which hapneth commonly in mid-Iune about the Summer Sunne-stead. For the most part, the leaues in euery kind of tree do hold one and the same colour, and continue vniform, saue those of the Poplar, Ivy, and Croton, which wee said was called also Cici [*id est*, Ricinus, or Palma Christi.]

CHAP. XXIII.

¶ *Three sorts of Poplar: and what leaues they be that change their shape and figure.*

OF Poplars there be found three sundry kinds, to wit, the white, the blacke, and that which is named * Lybica, or the Poplar of Guynce: this hath least leaues, and those of all other blackest: but now commendable they are for the fungous meazles (as it were) that come forth thereof. As for the white Poplar leafe, the leaues when they be yong, are as round as if they were drawn with a paire of compasses, like vnto those of Citron before named: but as they grow elder, they run out into certain angles or corners. Contrariwise, the Ivy leaues at the first be cornered, and afterwards become round. All Poplar leaues are full of downe: as for the white Poplar (which is fuller of leaues than the rest) the said downe flieth away in the aire like to mossie chats or Thistle-downe. The leaues of Pomegranats and Almond trees stand much vpon the red colour. But very strange it is and wonderfull which hapneth to the Elme, Tiller, or Linden, the Oliue tree, Aspe, and Sallow or Willow: for their leaues after Midsummer turn about vpside downe, in such sort, as there is not a more certaine argument that the Sun is entred Cancer, and returneth from the South point or Summer Tropicke, than to see those leaues so turned.

CHAP. XXIII.

¶ *What leaues they be that vse to turne euery yeare. Of Palme or Date tree leaues, how they are to be ordered and vsed. Also certain wonderfull obseruations about leaues.*

There is a certain general and vniuersal diuersitie & difference obserued in the very leafe: for commonly the vpper side which is from the ground, is of greene grasse colour, more smooth also & polished. The outside or nether part of the leafe hath in it certain strings, finnes or veins, brawns and ioyns, bearing out like as in the back part of a mans hand: but the inside cuts or lines in maner of the palme of ones hand. The leaues of the oliue are on the vpper part whiter and lesse smooth; and likewise of the Ivy. But the leaues of all trees for most part, euery day do turn and open to the Sunne, as desirous to haue the inner side warmed therewith. The outward or nether side toward the ground of all leaues, hath a certaine hoary downe more or lesse here in Italy, but in other countries so much there is of it, that it serueth the turn for wooll and cotton. In the East parts of the world they make good cordage and strong ropes of date tree leaues (as we haue said before) and the same are better, & serue longer within than without. With vs these Date leaues are pulled from the tree in the Spring, whiles they are whole and entire; for the better be they which are not clouen or diuided. Being thus plucked, they are laid a drying within house foure daies together. After that, they be spred abroad and displayed open to the Sun, and left without dores to take all weathers both day and night, and to be bleached, vntil they be dry and white: which done, they be sluied and slit for cord-work. But to come again to other leaues, the broadest are vpon the Fig-tree, the Vine, and the Plane; the narrowest vpon the Myrtle, Pomegranat, and oliue: as for those of the Pine and cedar, they be hairy: the Holly leaues and all the kindes of Holme be set with sharpe prickles. As for the Iuniper, in stead of leafe it hath a very pointed thorne. The Cypresse and Tamariske carrie fleshie leaues: those of the Alder be most thick of all other. The Reed and the Willow haue long leaues: the Date tree hath them double. The leaues of the Peare tree are round, but those of the Apple tree are pointed; of the Ivie cornered: of the Plane tree diuided into certaine incisions; of the Pitch tree and the Fir cut in, after the maner of comb-teeth; of the wild

hard

A hard Oke, waued and indented round about the edges; of the brier and bramble, sharpe like thornes all the skin ouer. Of some, they be stinging and biting, as of Nettles: of others ready to prick like pins or needles, as of the Pine, the Pitch tree, the Larch, the Firre, the Cedar, and all the sorts of Holly. The leaues of the Oliue tree, and the Mast-Holme, hang by a short stele; the Vine leaues by a long. The Poplar or Aspen leaues doe shake and tremble, and they alone keep a whistling and rustling noise one with another. Moreover, in the very fruit it selfe, and namely in a certain kind of Apples, ye shall haue small leaues breake out of the very sides in the mids; in some single, in others double and two together. Furthermore, there be trees that haue their leaues comming forth about their boughs and branches, others at the very end and shoer of the twig: as for the wild Oke Robur, it putteth leaues forth of the trunk and maine stock. Q and besides, the leaues grow thicker or thinner in some than in others; but alwies the broad and large leaues, are more thinn than others. In the Myrtle tree, the leaues grow in order by ranks; those of the Box tree turn hollow; but in the Apple trees they are set in no order at all. In Pyrries & Apple trees both, ye shall see ordinarily many leaues put forth at one bud, hanging at one and the same taile. The Elme, and the Tree-trifolie, are full of small and little branches. Ch. I to addeth moreover and faith, That such as fall from the Poplar or the Oke, may bee giuen as fodder to beasts, but he wils that they be not ouer drie: and he faith expressely, that for kine and well brouse and feed of Reed leaues and Bay leaues. Finally, the Seruise tree loofeth her leaues al at once, others shed them by little and little one after another. And thus much for the leaues of trees.

CHAP. XXV.

¶ *The order and course obserued in Nature as touching plants and trees, in their conception, flourishing, budding, knotting, and fructifying. Also in what order they put forth their blossomes.*

THE manner and order of Nature yeare by yeare, holdeth in this wise: first, trees and plants do conceiue by the meanes of the Westerne wind Fauonius, which commonly beginneth to blow about fixe daies before the Ides of Februarie: for this wind is in stead of an husband to all things that grow out of the earth, and of it they desire naturally to be conceiued, like as the Mares in Spaine, of which we haue written heretofore. This wind is that spirit of generation which breathes life into all the world; which the Latines call thereupon Fauonius, & *fauendo*, [i. of cherishing and nourishing euery thing] as some haue thought. It blowes directly from the Equinoctiall Sun-setting, and euermore beginneth the Spring. This time, our rustie call peasants call the Seasoning, when as Nature seemeth to goe proud or assault, and in the rut and furious rage of loue, desirous to conceiue by this wind, which indeed doth viuifie and quicken all plants and seeds sowne in the ground. Now of all them conceiue not at once, but in sundry daies: for some are presently sped in a moment, like as living creatures: others are not so hasty to conceiue, but long it is first ere they retaine, and as long againe before their vitall seed putteth forth; and this is therupon called their budding time. Now are they said to bring forth and be deliuered, when in the Spring they bloome, and that blossome breaketh forth of certain matrices or ventricles. After this, they become nourses all the while they cherish and bring vp the fruit: and this time also the Latines call *Germinatio*, [i. the breeding season.] When trees are full of blossomes, it is a signe that the Spring is at the height, and the yeare become new againe. The blossom is the very ioy of trees, and therein standeth their chiefe felicitie: then they shew themselves fresh and new, as if they were not the same; then be they in their gay coats; then it seemeth they strine a vie one with another in varietie of colours, which of them should excell and exceed in beautifull hew. But this is not generall, for many of them are denied this pleasure, and enjoy not this delight; for all trees blossome not: some are of an heauie and sad countenance, neither cheare they at the comming of this new season and glad some Spring: for the mast-Holme, the Pitch tree, the Larch, and the Pine doe not bloome at all, they are not arrayed in their robes, they haue not their liveryes of diuers colors to fore-signifie (as messengers and vancourriers) the arriual of the new yeare, or to welcome and solemnize the birth of new fruits. The Figge trees likewise both tame and wild, make no shew of floures: for they are not

too soon bloomed (if they bloom at all) but they bring forth their fruit. And a wonderful thing **G** it is to see what abortive fruit these Figge-trees haue, and how it neuer commeth to ripenesse. Neither doe the Iunipers bloome at all. And yet some writers there be who make two kinds thereof: and they say, that the one flowreth, and bears no fruit, as for the other which doth not blossom, it brings forth fruit vpon fruit, and berrie vpon berrie, which hang two yeres vpon the tree before they come to maturitie. But this is false, for in very truth all Iunipers without exception, haue euermore a sad looke, and at no time shew merie. And this is the case and condition verily of many a man, whose fortune is neuer in the floure nor maketh any outward shew to the world. Howbeit there is not a tree but it buddeth, euen those that neuer blossome: And herein the diuersitie of the soile is of great power: for in one and the same kind, such as grow in **H** marshy grounds, do shoot and spring first; next to them, those of the plaines; and last of all they of the woods and Forrests. And generally the wilde Pyrries growing in woods doe bud later than any other. At the first coming of the western wind Fauonius, the Corneil tree buddeth, next to it, the Bay, and somewhat before mid-march or the spring Equinoctiall, the Tillet or Linden, and the Maple, the Poplar, Elme, Willow, Alder, and Filberds or Hazell nut trees, bud with the first. The Palme also maketh hast and is loth to come behind. All the rest at the point and prime of the spring, namely the Holly, the Terebinth, the Paliurus, the Cheston, and the Walnut-trees, or Mast-trees. Apple trees are late ere they bud, but the Corke tree longest of any other. Trees there be that put forth bud vpon bud, by reason that either the soile is exceeding battill and fat, or else the weather faire and pleasant: and this happeneth more to be seene in the blades of corne. But trees if they happen to be ouer rancke in new shoots and buds, they waxe wearie and grow out of heart.

Moreouer, some trees there be that naturally do sprout at other seasons besides the spring, according to the influence of certaine starres, whereof the reason shall be rendred more conveniently, in the third booke next ensuing after this. Meane time this would be obserued, That the winter spring of trees is about the rising of the Ægle-star: the Summer budding at the rising of the Dog-star: and a third, when the star Arcturus is vp. And for the two later, some would haue them verily to be common to all trees, but most evidently seen, in Fig-trees, Vines, Pomegranate trees: and they yeeld a cause, For that in Theffalie and Macedonie the Fig tree about these times putteth forth most plenteously: and in Ægypt this reason is to be seene most apparently. As for all other trees, certaine it is, that when they begin once to bud, they hold on and shoot forward continually without intermission. The wild Oke, the Fir, and the Larch tree, haue their feuerall shoots in one yere, and spring at three sundrie times, giuing ouer between whiles; and therefore they put forth the sprouts between the scales of their barks: a thing vsually happening to all trees in their budding & breeding time: for after they be once conceiued, their rind or bark bursteth withall. Now their first budding is in the prime & beginning of the spring, and continueth much about 15 daies. They bud a second time in the moneth of May when the sun passeth thorough the signe Gemini: by which time it is evidently to be seen, how the bud heads that came first, are driuen and thrust vp higher by those that follow after; & that appeares more plainly by the encrease of the knots & joynts. As for the third budding, it is very short, namely at * midsummer, and lasteth not about a seuen night: and euen then also may a man perceiue manifestly by the knots and joynts of the shoots how much they are put forth and grown. The Vine alone shooteth twice, to wit, when the first beginneth to burgen & put forth a grape; and a second time, when the formeth and digesteth or concocteth the same. As for those trees that blossom not, they haue no more to doe but only to bring forth their fruit, and so proceed to ripen it. Now there are some trees, which no sooner bud, but they shew also a blossom; and yet as **L** hasty as they be that way, they take their leisure afterwards, and long it is ere their fruit come to be ripe: and such are the Vines. Others again be as backward and slow both to bud and blossom, but they make speed to ripen their fruit, as the Mulberry tree, which of ciuile and domesticall trees, is the last that buds, and neuer before all the cold weather is past; and therefore she is called the wisest tree of all others: but after that she begins once to put forth buds, she dispatches her busines out of hand, inso much as in one night she hath done; and that with such a force, that in the breaking forth a man may evidently heare a noise. Of those trees that conceiue in winter, about the rising of the Ægle-star, (as we haue before said) the Almond tree is the first that blossometh in the moneth of Ianuarie, and by March the Almond is ripe. The next that blossometh

A Blossome after it, be the Peach Plum-trees of Armenia, then the Iuube trees called Tubercs, and the Abricots. As touching the former, they be meere strangers, but these Abricots are forced by Art and industrie of man. As for wild and sauage trees, by course of nature the Elder floures first, and hath of all other most plentie of pith or marrow within, whereas the male Corneil hath none at all. But of domesticall and ciuile trees, the Apple tree beginneth to blossom, and soone after the Pyrry, Cherrie tree, and Plum tree, inso much as they seeme all to floure together. Next to them, is the Lawrell; anon after it, the Cypresse, and then the Pomegranat, and the Fig tree: Vines and Oliue trees do but then burgen and bud, when those other be in their floure: for in truth they conceiue late, namely, at the rising of the Vergilia or Brood-hen; for this is the proper star to the influence whereof these trees be subject: and it is Iune first and the summer Sun-stead, before the vine bloomes; and so it is with the Oliue tree, but that it commeth somewhat later. All trees be seuen daies at the least in their blossoming; and some be longer ere they giue ouer, but none passe a fortnight: and done they haue euer by the eight day before the Ides of Iuly; which are forerunners of the Etesian winds. Finally, some trees there are which doe not knit nor shew their fruit immediatly vpon their blooming.

CHAP. XXVI.

Of the Corneil tree. Also, what is the proper time wherein euery tree beareth: which trees be they that beare not, and which be reputed vnluckie.

Also of those trees which soonest lose their fruit. Last of all, what trees shew fruit before leafe.

AS for the Corneil tree, it is about midsummer or the summer Sun-stead, before it putteth forth any fruit, which at first is white, afterwards red as blood. But the female of this kind beareth after Autumne, sowe berries, and such as no beast will abide to tast. The wood thereof also is spongy, hollow, and good for nothing; whereas that of the male is counted among the hardest that be: so great difference there is in trees of one and the same kind. Moreouer, the Terebinth, Maple, and Ash, yeeld their fruit or seed in haruest time: Walnuts, Apples, and Peares (vnlesse they be some winter fruits, or of the hasty kind) ordinarily are readie to be gathered in the Autumne. All mast trees be later ere they render their fruit, to wit, about the going downe of the Vergilia or beginning of the winter, saue only the Æsculus, which passeth not the Autumne. As for certain Apple trees and Peare trees both, as also the Corke tree, their fruit is not to be gathered before winter begin. The Firre putteth forth a blossome of a yellow color like Saffron, about mid-Iune or the summer sun-stead; but the Brood-hen star is downe before the fruit be ripe. The Pine, and Pitch tree, do bud before the Firre some fifteen daies, or thereabout; and it is winter first, but the foresaid Vergilia or Brood-hen is likewise set, before their fruit is ripe. Citron trees, Iunipers, and mast-Holmes, are counted trees that beare all the year long, and the old fruits of the former yeare tarieth on the tree vntill new come, and they hang both together. But aboue all other trees, the Pine is a wonder in nature; for a man shall euer find vpon it some of the fruit readie to be ripe; and some againe that will remaine vnto the next yeare, and the third yere before it will be readie: and there is not another tree that is more forward and greedie (as it were) to put forth it selfe, and giue greater hope of increase, than it doth: for look in what month soeuer the Pine-nuts are gathered from the tree, in the very same month a man shall haue ripe fruit on her. Those Pine-apples or nuts which cleaue and open vpon the tree, bee called Zamia; and well may they be so named, for vnlesse they be plucked, they hurt and corrupt the rest. The only trees that bear no fruit at all, that is to say, not so much as seed, are these; the Tamariske, good for nothing but to make Beesoms of; the Poplar, Alder, Atinian Elme, and the Alaternus, which hath leaues resembling the Holme, and partly the Oliue. As for such trees which neither at any time are set or planted, nor yet beare fruit, they bee holden for unfortunate, accursed, and condemned, in such sort, as there is no vse of them in any sacrifice or religious seruice. **C**remutius writeth, That the (Almond) tree whereon ladie Phyllis hanged her selfe, had neuer (after) greene leaues on it. Such trees as yeeld gum, after they haue put forth their bud, do cleaue and open: howbeit the gum that issueth out, neuer commeth to any thicknesse, vntill the fruit thereof be gathered. Yong trees commonly beare not so long as

they shoot and grow. The Date tree, the fig tree, the Almond tree, the Apple tree, and the Pyrrie, do soonest of all other let their fruit fall before it be fully ripe. Semblably, the Pomegranat tree, which is so tender besides, that with euery thicke and heauie dew, white frost, and foggie time, the wil be bitten & shed the blossom: which is the cause that folk vse to bend the boughs thereof downward to the ground, that both dew and rime may sooner fall off which lights vpon them, and otherwise would ouer-load and hurt them. The Pyrrie and the Almond tree cannot abide close and clouideweather, especially if the wind be Southerly, although no raine do fall: for in such daies, if they chance to blossom, they not only shed their flowre, but lose their fruit new knit. But the Sallow or VVithie tree, is of all others most ticklish, and soonest forgoes the seed or chats that it beareth before it commeth to any ripenes: for which cause, called it is of *Homer* * Loose-fruit, or Spill-fruit. Howbeit the age ensuing (naught as it was) hath interpreted that Epithet of his, in another sense, according to the wicked experience they had of it, whereby it was found, that the seed therof causeth barraineffe in women, and hindreth conception. But in this regard, Nature hath well done also to preuent this mischiefe and inconuenience, in that she hath not been very carefull to preferue the seed: and yet for the maintenance of the whole kind, she hath endued it with this gift, To grow very quickly, if a man do prick it into the ground but a cutting or twig thereof. And yet (by report) there is one Willow in Candie, and namely about the very descent of *Iupiters* caue, which is wont ordinarily to carie the graine or seed thereof vntill it be full ripe, and then is it of a rough and writhen shape, of a wooden and hard substance, and withall, of the bignesse of a cich pease.

Moreover, some trees there be that proue barraine and fruitlesse by the occasion of the imperfection of the soile and territorie where they grow: and, namely in the Isle Paros, there is a whole wood or coppise that vsually is lopt and cut, but it neuer beareth any fruit. The Peach trees in the Island Rhodos blossom only, and otherwise are fruitlesse. Ouer and besides, this difference of trees (that some be fruitfull and others barraine) ariseth of the sexe also; for commonly the males beare not: howsoever some affirme cleane contrary, and say, They are the male only that be fruitfull, and the female barren. Furthermore, it falleth out many times that trees be fruitlesse, either because they grow too thicke one by another, or else are ouercharged and too ranke with boughes and branches: but of such as do beare, some bring forth their fruit both at the sides, and also at the very tips and ends of their branches; as the Peare tree, Pomegranate tree, Figge tree, and Myrtle. As for others, they are of the nature of corne and pulse; for the one grows in the eare or spike alone, the other by the sides, & not otherwise. The Date tree onely (as hath been said before) containeth fruit within certain pellicles, and the same hangeth down in clusters after the manner of grapes. Other trees beare their fruit vnder the leafe for their safeguard and defence, except the Fig tree, which hath her Figs aboue the leafe, because it is so large and ouershadowie. Moreover, the leafe of the fig tree commeth forth after the Figge. One notable thing is reported of a kind of figge-trees in Cilicia, Cyprus, and Hellas, to wit, that they haue this propertie singular by themselves, To bring forth their perfect Figs vnder leafe, and those Greene abortiue Figs that come to no prooffe, after the leafe. The Fig tree beareth moreover certain hastie Figs, which the Athenians call *Prodromos*, i. vant-courriers or forerunners, because they be long ripe before others. The Laconian Figge trees bring the fairest and greatest Figs.

CHAP. XXVII.

¶ Of trees that beare twice and thrice in one year. Also what trees soonest wax old: and of their ages.

IN the same countries aboue-named, there be Figge trees also that beare Figges twice in one year. And in the Island Cea, the wild Figge trees beare thrice in the same year: for the second increase is put forth on the first, and the third vpon the second: and by this third fruit, the Figges of the tame Figge tree receiue their maturitie by way of capricification: and those wild Greene Figges of theirs come forth aboue the leafe. Moreover, there be some Pyrries and Apple trees that bring forth fruit twice a year: as also there be others of the hastie kind, which do beare both Peares and Apples betimes in the year. There is a kinde of Crab tree also or VVilding, that in like manner beareth twice a year; and the later fruit is ripe presently after

A after the midit of September, especially in places lying well vpon the Sun. As touching Vines, there be of them also, that after a sort beare three times in the year, which thereupon men call *Infanas*, [i. The mad or foolish vines:] for whiles some of the grapes be ripe, others begin to swell and wax big, and a third sort againe are but then in the flower. *M. Varro* writeth, That in Smyrna by the sea side there was a vine that bare fruit twice a year, as also an Apple tree in the territorie of *Consentia*. But this is an ordinary thing throughout all the country about *Tacapa* in Africa, and neuer is it seen otherwise there, so fertile is the soile; but thereof will wee write more at large hereafter in another place. As for the Cypresse trees, they faile not but come with fruit thrice in one year: and their berries be gathered in Ianuarie, May, and September, and all of a diuers bignesse, one from the other. Ouer and besides, the very trees themselves are not laden with fruit after one and the same manner: for the Arbut or Strawberry tree is more plentiful in the head, and toward the top: the Oke, the Wal-nut-tree, Fig-tree (and namely that which beareth the vsauorie great figs *Mariscæ*) are more fruitfull beneath. Generally, all trees the elder they are, the sooner they beare and make more hast to ripen their fruit; the rather also if they grow in a ground leane, and exposed to the Sun. Contrariwise, trees that be wild are later in bearing than other: and some of them neuer yeeld fruit fully ripe. Moreover, such trees vnder which the ground is tilled & laid hollow, haue their fruit sooner ripe, & are more fruitfull withall, than those that are neglected and not looked vnto: Besides all this, there is a difference in trees as touching bearing their fruit, according to the age: for the Almond tree & the Pyrrie are, most fertile when they be old, as also mast trees, and a certain kind of fig-trees. All others, the yonger they are, the more fruitfull they be, howbeit, later it is, ere their fruit be ripe: a thing most plainly to be obserued in Vines. For the better wine commeth from the elder Vines: but more plenty from the yonger. As for the Apple-tree, it becommeth of all other soonest old, and in that age the fruit is nothing so good as in youth: for both lesser be the Apples, and also more worm-eaten, in so much as the very wormes will breed in them vpon the tree. The Fig is the fruit alone of all trees, that needeth some help of * *Physicke* to ripen. And this may be noted for a strange and miraculous thing in them, That the later figs bee in more price than the hasty and early ripe, and that there should be more reckoning made of preposterous and artificiall things beside the course of kind, than of the naturall. Also this is a generall rule, VVhatsoever tree is exceeding fruitfull, and beareth most, the same continueth least while, and soon waxeth old. Yea and some of them are to be seen to die out right, and that very quickly, because they inioyed so fauorable a season, to cause them so to spend themselves with bearing; as wee may marke most easily in Vines.

CHAP. XXVIII.

¶ Of the Mulberrie tree.

CONtrariwise, the Mulberry tree lasteth long, and is very late ere it seemeth old. For why? it is not giuen greatly to beare fruit, neither is ouerladen with Mulberries. To conclude, look what trees haue a curled graine in the wood, as the Maple, Date-tree, and Poplar, they continue a long time before they decay. And in one word, such as haue their roots digged or delued often and laid bare about, are not long liued, but soone age and decay.

CHAP. XXIX.

¶ Of wilde trees.

AS for wilde trees, they indure longest of all others. And generally, as carefull tending and looking to trees, maketh them more fertile: so there is nothing sooner bringeth age vpon them, than fruitfulness and much bearing. Hereupon it is likewise, that such trees both bud and also blossom sooner than others, yea, and ordinarily their fruit is ripe before the rest: in regard whereof, they are more subiect to the iniury of the time & the weather, which causeth also diuers and sundry infirmities. Moreover, as we haue said already in the chapter of mast trees, there be many that bring forth fruits of different sorts: among which may be reckoned the Lawrell, with her variable floures and berries growing so thicke, and principally the barren of that kind which beareth nothing els, and therefore is esteemed of some the male. The Hazels also

so and Filbard trees, besides, their nuts do carry certain chats with a callous substance of skales G
joined one within another, but good for nothing.

CHAP. XXX.

¶ Of the Box-tree: the Greeke Beane or the Lotus.

Among these is to be ranged the Box-tree, which bringeth forth the most varietie of all others. For it putteth forth a feed of her owne, also, a graine which they call Carthegon: besides, on the North side Misseito, and on the South Hyphear: whereof wee will write a none more at large: so that otherwhiles a man shall find foure diuers things vpon the Box all together.

Moreover of trees, some be simple or single, to wit, such as from the root haue one trunk or body, and no more, and yet many boughes and branches; as the Oliue, Fig-tree, and the Vine: others be of a shrubs kind, and put forth many shoors from the root besides the main trunk, as the Rhamne, thorn Paliurus, and the Myrtle. In like maner the Hazell nut-tree. Howbeit, the better is the tree and more plenteous in fruit, when it is well branched from the body, and hath not those suckers from the root: ye shall find some again haue no principall stock at all, as wee may see in a kind of Box, and a certain Lotus beyond sea. Others be forked in twain, yea in fiue, immediately from the root: and ye shall meet with those that put vp many trunks out of the earth, but branch not into boughes, as namely, the Elders; as also with others that forke not, nor are diuided at all, howbeit, they be ful of arms & boughs, as the Pitch-trees. Moreover, some there be which haue their boughes disposed in good order, as the Pitch-tree, Firre, or Deale: others again be as disorderly, as the Oke, Apple-tree, and Pyrrie. As for the Fir verily, where it is diuided into boughs, they grow directly vpright vnto heauen, and spread not in breadth about the sides. But a strange and wondrous thing it is of this tree, that if it be headed, or the tops only of those arms cut off, the whole dieth thereupon: but if they be lopped off close to the body, it continueth still aliue. Nay, in case it be cut vnder the place where the branches put forth, the stock or stump that is left, will take no harme by it, but remaine and liue: crop the head onely thereof, and the whole tree dieth. To proceed, some trees spread into arms immediately from the root, as the Elme: others branch only toward the top, as the Pine, and the Greek Bean, which at Rome for the pleasant tast of the fruit, resembling cherries very much, although it be of a wild nature, they call Lotus. This tree is much planted about faire houses, in the court yards, especially because the boughs spread so large, for albeit the stock or body it selfe be but very short and small, yet it brancheth so, as that it yeeldeth much shade: yea, and often times the boughes reach to the neighbor housen. But there is not a tree againe that maintaineth this shade a lesse while; for when Winter is once come, the leaues shed, and then it admitteth the warm Sun for it. Moreover, there is not another tree that beareth a fairer barke, nor more pleasant to the eie, nor that carieth either longer boughes, and more in number than it, or stronger: a man that seeth them, would say they were so many trees by themselves. As touching the vse and commodities of this tree, the barke serueth to colour skins and leather: the root to die wooll. And as for the fruit or Apples that it beareth, they are a speciall kind by themselves: for all the world they resemble the snouts or muzzles of wild beasts, and many of the smaller sort seeme to hang to one that is bigger than the rest.

As concerning boughs of trees, some are termed blind, because they put not forth certaine eies or chits where they should bud: which happeneth somtime by a naturall defect, when they are not of validity to thrust out a bud; otherwhiles it is occasioned by somewrong and iniurie done, namely, when they be cut off, and in the place of the cut, there groweth as it were a callous skar that dulleth the vertue of the tree. Furthermore, looke what is the nature that forked trees haue in their boughes, the same hath the Vine in her eies and burgeons; the same also haue canes and reeds in their joints and knots.ouer and besides, all trees toward their root, and the nearest to the ground, are thicker than else where. Some run vp altogether in height, and therein shew their growth, as the Firre or Deale tree, the Larch, Date-tree, Cypressse, Elme, and generally all that rise vp in an entire stocke, and are not diuided. Of those also that branch and put out many boughes, there is a kind of Cherry-tree that is found to beare armes like beames forty cubites long, and two foot in thicknesse square throughout the whole length.

CHAP.

CHAP. XXXI.

¶ Of the Boughes, Barke, and Roots of trees.

There are trees, that immediatly from the root thrust out boughes and branches, as do the Apple-trees. Some be couered with a thin rind, as the Lawrell and Line-tree: others with a thicke barke, as the Okes. In some a man shall find the barke euen and smooth, as in the Apple-tree, and fig-tree: the same in others is rough and rugged, as is to be seene in Okes and Date-trees. And ordinarily, all old trees haue more riuelled barks and furrowed, than the younger. In many trees the bark naturally doth breake and cleaue of the own accord, and namely in the Vine. From some it shaleth and falleth off, as from the Apple tree and the Arbut. The cork B and the Poplar haue a fleshie and pulpos barke: the rind of the Vine and the Reed, is made in manner of a membrane or thin skin. In Cherry trees it is as slender as paper, and runneth into rolls: but Vines, Lindens, and Firs, are clad with tunicles and coats of many folds. In some again the rind is but single, as in the Fig-tree, and the Cane or Reed. And thus much of Barke.

There is as great difference in the root. For the fig-tree, the Oke, and the Plane, haue great store of roots and large spurns: contrariwise, in the Apple tree they are short and small: the firre and Larch haue one tap root and no more: for vpon that one main master-root they rest and are founded; howbeit, many small strings and petie spurns shoot out of the sides. In the Bay-tree the roots be more grosse and vnequally embossed, and likewise in the oliue, which also spredeth out into many branches. But those of the oke be of a carnos substance: and verily, all the kind C of okes do root deep into the ground. Certes, if we giue credit to Virgil, that sort of them which are called Esculi, go down as deep into the earth with their roots, as they arise & mount aboue ground with their heads. The roots of the Apple-tree, Oliue, and Cypressse, lie very ebbe, and creep hard vnder the sould of the ground. Moreover, there be roots that run direct and streight, as those of the Bay and Oliue: there be againe that wind and turne as they go, as those of the fig-tree. Some are all ouergrowne and full of hairy strings, as the firre-root, and many others of wild trees that grow in forrests: from which the mountains vse to pluck those fine fibers & small threds, wherewith they twist goodly faire paniers, couers for flaggons and bottels, and work many other vessels & prety deuises. Some writers [as namely Theophrastus] hold opinion and haue put down in their books, that no roots goe lower into the earth, than that the Sunnes heat may pierce vnto them and giue them a kind warmth; the which is more or lesse, say they, according D to the nature of the soile, as it is either lighter or lean, or massier, richer, and faster compact. But I take this to be a meere vntruth. This is certain, that we find in ancient writers, that a yong Fir, when it was to be transplanted and set again, had a root that went eight cubits within the earth; and yet it was not digged vp all whole, but broken in the taking vp, and left somewhat behind. The roots of Citron trees are biggest of all other, and spread most. Next to them are those of the Planes, Okes, and other Mast-trees. Some trees there be, the roots wherof like better & liue longer, the more ebbe that they lie within the vpper face of the ground, and namely, Lawrells; and therefore they spring fresh againe, and put forth better, when the old stock is withered and cut away. Others hold, that trees which haue short stumped roots, do sooner decay, & liue lesse E while. But deceived they are, and may be reprobued by the instance of fig-trees, which liue least while, and yet their roots are longest of any other. I suppose this also to be as false, which some haue held and deliuered in writing, That the roots do diminish and decay, as the trees do waxe old; for the contrary hath bin seen by an aged oke, which by the violent force of a tempest was ouerthrowne, the root wherof tooke vp a good acre of ground in compass.

Moreover, a common thing it is and ordinary, to replant and recouer many trees that haue bin blown down and laid along; for they will reioine, knit againe, and reuiue, by meanes of the earth, euen as a wound doth vnite by the folder of a callous cicatrice. And this is a most vsuall and familiar practice obserued in the Planes, which by reason of their great heads so thicke of boughes, gather windes most, and are sooneft subiect to their rage: if any one of them by that means be fallen, they lop their boughes, and discharge them of their weightie load, and then set them vpright again in their owne place, as it were in a socket, and they will take root and prosper. And in good faith, this hath bin done heretofore already in Walnut trees, Oliues, and many other, to the like prooffe.

CHAP.

CHAP. XXXII.

¶ Of certaine prodigious trees, and preſages obſerued by them. By what meanes trees grow of their owne accord. That all plants grow not euery where: and what trees they be that are appropriate to certaine regions, and are not elſewhere to be found.

WE reade in Chronicles and records, that many trees haue fallen without wind and tempeſt, or any other apparent cauſe, but only by way of prodigie and preſage of ſome future euent: and the ſame haue riſen againe of themſelues without mans helpe. This happened during the wars againſt the Cymbrians, to the great aſtoniſhment of the people of Rome, who thereupon gathered a fore-tokening of great conſequence: for at Nuceria in the groue of *Iuno*, there was an old Elme fell, and after the head was lopped off, becauſe it light vpon the very altar of *Iuno*, it aroſe of it owne accord; and that which more is, immediatly vpon it put forth bloſſoms and flouriſhed. And this was obſerued, That from that very inſtant, the maieſty of the people of Rome began to take heart, reuiue, and riſe again, which had bin decayed and infeebled by ſo many and ſo great loſſes that the Romans hed receiued. The like chanced (by report) neer the city Philippi, vnto a Willow tree which was fallen downe, and the head of it cut off cleane: ſemblably, to an Aſpen tree at Stagyræ, neere vnto the colledge or publiſh place of Exerciſe there. And all theſe were fortunate preſages of good luck. But the greateſt wonder of all other was this, of a Plane tree in the Iſle Antandros, which was not only fallen, but alſo hewed and ſquared on all ſides by the Carpenter; and yet it roſe againe by it ſelfe, and recouered the former greenneſſe and liued, notwithstanding it bare 15 cubits in length, & foure elnes in thickneſſe and compaſſe.

All trees that we are beholden vnto the goodneſſe of Nature for, we haue by 3 meanes: for either they grow of their owne accord, or come of ſeed, or elſe by ſome ſhoot ſpringing from the root. As for ſuch as we inioy by the art and induſtry of men, there be a great number more of deuices to that effect: whereof we will ſpeake apart in a ſeueral booke for that purpoſe. For the preſent our treatiſe is of trees that grow in Natures garden onely, wherein ſhe hath ſhewed her ſelfe many waies after a wonderfull manner, right memorabile.

Fiſt and formoſt, as we haue ſhewed and declared before, euery thing will not grow in euery place indifferently: neither if they be tranſplanted, will they liue. This happeneth ſometimes vpon a diſdaine, otherwhiles vpon a pecuiah forwardneſſe and contumacie, but oftner by occaſion of imbecility and feebleneſſe of the very things that are remoued and tranſlated; nay, one while the climate is againſt it, & enuious; otherwhiles the ſoile is contrary therunto. The balm tree can abide no other place but Iury. The Aſſyrian Pome-citron tree will not beare elſewhere than in Syria. As for the Date-tree, it ſcornes to grow vnder all climats; or if it be brought to that paſſe by tranſplanting, it reſuſeth to beare fruit. But ſay, that it fortune by ſome meanes, that ſhe giueth ſome ſhew and apparance of fruit, the is not ſo kind as to nourish and reare vp to perfection, that which ſhe brought forth, forced againſt her will. The Cinnamon ſhrub hath no power and ſtrength to indure either the aire or earth of Syria, notwithstanding it be a neere neighbor to the naturall region of her natiuity. The daintie plants of Amomum or Spike-nard, may not away with Arabia, howbeit they be brought out of India thither by ſea: for king *Seleucus* made triall therof: ſo ſtrange they are to liue in any other country but their own. Certainly, this is a moſt wonderful thing to be noted, That many times the trees for their part may be intreated to remoue into a forrain country, and there to liue; yea, and otherwhiles the ground and ſoile may be perſuaded and brought to accord ſo wel with plants (be they neuer ſuch ſtrangers) that it will feed and nourish them; but vnpoſſible it is to bring the temperature of the aire and the climat to conſcend thereto and be fauourable vnto them. The Pepper-trees liue in Italy; the ſhrub of Caſia or the Canell likewiſe in the Northerly regions; the Frankincenſe tree alſo hath been knowne to liue in Lydia; but where were the hot gleames of the Sunne to bee found in thoſe regions, either to dry vp the wateriſh humor of the one, or to concoct and thicken the gumme and Roſine of the other? Moreover, there is another maruell in Nature, well-neare as great as that, namely, that ſhee ſhould ſo change and alter in thoſe ſame places, and yet exerciſe her vertues and operations otherwhiles againe, as if there were no change nor alteration

A ration in her. She hath aſſigned the Cedar tree vnto hot countries: and yet wee ſet it to grow in the mountaines of Lycia and Phrygia both. She hath ſo appointed and ordained, that cold places ſhould be hurtfull and contrary to Bay-trees, howbeit, there is not a tree proſpereth better, nor groweth in more plenty vpon the cold hill Olympus, than it. About the ſtreights of the Cimmerian Boſphorus, and namely, in the city Panticapæum, both *K. Mithridates*, and alſo the inhabitants of thoſe quarters, vſed all meanes poſſible to haue the Lawrel and the Myrtle there to grow, only to ſerue their turns when they ſhould ſacrifice to the gods: it would neuer be, did they what they could: and yet euen then, there were good ſtore of trees there growing of a warm temperature; there were Pomegranates and Fig-trees plenty; and now adaies there be Apple-trees and Pyrries in thoſe parts, of the beſt and daintieſt ſort. Contrariwiſe, ye ſhall not find in all that tract any trees of a cold nature, as Pines, Pitch-trees, and Firres. But what need I to goe as farre as to Pontus for to auerre and make good my word? Goe no farther than Rome, hardly and with much adoe will any Cheſtnut or Cherrie trees grow neere vnto it, no more than Peach-trees about the territory of Thufculum. And worke enough there is to make hazels and ſilbards to like there: turne but to Tarracina thereby, ye ſhall meet with whole woods full of Nut-trees.

CHAP. XXXIII.

¶ Of the Cypreſſe tree. That oftentimes ſome new plants do grow out of the ground, which were neuer knowne to be there beforetime.

THE Cypreſſe hath bin counted a meere ſtranger in Italy, & moſt vnwilling there to grow; as we may ſee in the works of *Cato*, who hath ſpent more words, and made oftner mention of the Cypreſſe alone, than of all other trees whatſoeuer. Much ado there is with it before it come vp; and as hard it is to grow, and when all is done, the fruit is good for nothing. The berries that it beareth, be wrinkled, and nothing louely to the eie; the leaues wherewith it is clad, bitter in taſt; a ſtrong and violent ſmell it hath with it, not ſo much as the very ſhade thereof is delectable and pleaſant; and the wood but ſmall & not ſolide, but of an hollow ſubſtance, inſomuch, as a man may range it among the kinds of ſhrubs. Conſecrated is this tree to *Pluto*, & therefore men vſe to ſet a bough thereof as a ſigne, before thoſe houſes wherein a dead corpes lieth vnder board. As touching the female Cypreſſe, it is long ere ſhee beareth. The Cypreſſe tree for all this, in the end growing vp to a pyramidall forme ſharp pointed, is not reſected but much ſet by, if it were for nothing elſe but to ſtand between euery row and ranke of Pine-trees: howbeit, now adaies it is ordered with cutting and clipping for to grow thick in borders about garden quarters along the allies, alſo to climbe vpon walls in manner of feeling: and being thus kept down, it is by this means alwaies ſmall and tender. Moreover, thereof are drawne many vi-nets and borders about ſtory-works in colours: for ſo fine is the leafe, ſo ſhort and green withal, that it may be brought in a traile to winde about pictures either of hounds and hunters, or of ſhips and ſailers, or any counterfeits and images whatſoeuer moſt daintily.

Two ſorts there are of the Cypreſſe tree. Fiſt that which runneth vp into a pyramidal point, winding upward as a round ſpire, which alſo is called the female. A ſfor the male, it ſendeth out branches, and ſpreadeth broad: it is lopped alſo, and ſerueth in frames to beare vp vines. Both the one and the other is ſuffered to grow for perches, railles, and planks, to be made of their boughes when they are cut. Once in thirteene yeares there is made a fall, and not one of thoſe but are ſold for a Roman denier apiece. A wood thereof planted in this manner, is of all others moſt gainfull; and yeeldeth greateſt profit: inſomuch, as in old time they were wont commonly to ſay, That one fall of ſuch Cypreſſe poles would yeeld a man a portion ſufficient to giue with his daughter in marriage.

The Iſland Candie is the naturall countrey of the Cypreſſe tree, howſoeuer *Cato* hath called it a Tarentine tree: haply, becauſe it came thither fiſt. In the Iſle Anaria, the Cypreſſe trees ſpring againe after they be cut downe to the roots. But in Candie, looke what ground ſoeuer a man doth breake vp and plough, vnleſſe he ſow or ſet it with ſome other thing, Cypreſſes will come vp, and preſently ſhew aboue ground. In many places alſo of that Iſle, they ſpring and grow of themſelues, euen in ground otherwiſe vttilled; and principally in the mountaines of Ida, and thoſe which they cal the white Hills: vpon the very creſts and tops wherof, which are alwaies

alwaies couered with snow, they are to be seen in greatest plenty. A wonderfull thing, considering that in all other places they loue warmth, and without it, will not grow: and besides, when they haue met with a familiar ground vnto them, yet they care not much for it, but disdain to kind a nourse: whereby a man may see, that not onely the nature of the soile, and the ordinarie power of the climat serueth much for these plants, but also certain sudden and temporarie impressions of the aire do wonderfully worke in this case: for some showers there be, that oftentimes do bring feeds with them and ingender plants. The same rains do fall sometime after one certain manner, otherwhiles also in such strange sort, as men are able to giue no reason thereof. A thing that befell the country about Cyrene in Barbary, at what time as the herbe *Laserpitium* (which beareth the gum Benjoine) grew there first: as hereafter we will write more at large in our treatise of herbes. Moreouer, about the 430 yere after the foundation of Rome city, there sprung up a very forest or wood nere vnto the same city, by reason of a certaine thick and glutinous shoure like to Pitch, that then fell.

CHAP. XXXIII.

¶ Of *Iuie*.

It is said, that now the *Iuie* tree groweth also in Asia: and yet *Theophrastus* in his time deliuered the contrary, and a firm'd, that neither it was to be found there, nor yet throughout all India, but only vpon the mount Merus.ouer and besides, it is reported, that *Harpalus* did what he could to store the country of Media therewith, but all in vaine. And as for *Alexander* the Great, when he returned from out of India with victory, for the rarenesse thereof he would haue all his soldiers go in a sumptuous shew, wearing chaplets therof vpon their heads; resembling herein prince *Bacchus*, in solemnities and high feasts of which god, the people of Thracia euen at this day are furnished from this tree, and do with *Iuie* set out and garnish the heads of their launces, pikes, and iauelins, their mourrons also and targuets.

An enemy is *Iuie* doubtlesse to trees, and generally to all plants and sets whatsoeuer: it cleaveth and breaketh sepulchres built of stone, it vndermineth city walls; good onely to harbour serpents, and most comfortable for their cold complexions: so that I cannot chuse but maruell much that it should be honored at all, and accounted of any worth. But to enter into a more particular consideration and discourse of *Iuie*, two principall kinds are found therof, like as of all other trees, to wit, the male and the female. The male is described to be a more massiue and greater body, to be clad with a harder and fatter leafe, and to shew a flower inclining to purple: and yet the flower of them both, the male as well as the female, doth resemble that of the wild Rose or Eglantine, saue that it hath no smell at all. These generall kinds containe each of them three particular sorts: for there is the black and the white *Iuie*, and a third besides named *Helix*: and yet we must admit other subdiuisions of these also: for of the white, there is one sort that beareth white fruit only, and another that hath white leaues withall: moreouer, of such as carry only white fruit, one kind hath big berries growing thick together, and bunching round in manner of grapes, which clusters be called of the Greeks and Latines *Corymbi*. A second sort there is of the white *Iuie* named *Selenitium*, which beareth smaller berries, and those not so close set and thick couched together. Semblably, it is to be said of the black: for there is an *Iuy* that beareth also a black grain or seed: another with a fruit of a Saffron colour; and hereof are the garlands made which Poets weare: some call it *Nysia*, others *Bacchica*: the leaues of it are not altogether so blacke, but it beareth the greatest bunches and biggest berries of all the black kind. And verily of this *Iuie* there be some Greeke writers that make two sorts, according to the diuers colors of the berries: for the one they call *Erythranus* [i. the red:] & the other *Chrysocarpus*, as one would say, the golden berry. *Iuie*. Now as touching the rampant or climbing *Iuie*, *Helix*, there be many and sundry sorts thereof, differing in their leafe especially: for first & foremost the leaues of this *Iuie* are small, cornered, and better fashioned than the rest, which indeed are but of a plain and simple making. There is a difference likewise in the length between euery knot and ioint, but especially in this, that it is barren and beareth no fruit at all. And yet some there be, who attribute that to the age, and not to a seuerall kind of *Iuie* by it selfe, saying, that the same which at first was *Helix*, and clasped trees, in tract of time changed the leafe and became a very *Iuie* tree: but fouly they are deceiued, and disproued plainly they may be by this, That

A That of the said clasping *Iuie* *Helix*, there be many kinds, and three principall about the rest. The first, of grasse Greene colour, which groweth most common: the second, with a white leafe: and the third, called also the Thracian *Iuie*, which hath leaues of diuers colours. The foresaid Greene *Iuie* is fuller of leaues, and those finer and set in better order than in others; whereas the contrary is to be seen in the white kind: also in the third sort with variety of colours, some haue smaller and thinner leaues, couched likewise in good order, and thicker growing, whereas in the middle kind, no such thing may be obserued. ouer and besides, the leaues of *Iuie* are bigger or lesse, spotted also and marked; in which regard one differeth from another. Among the white *Iuies*, some be whiter than other. The green *Iuie* groweth most of all others in length: the white killeth trees, for by sucking and soking al the sap and moisture out of them, it feedeth and thrusteth fowel it selfe, that it becometh in the end as big as a tree. A man may know an *Iuie* being come to his perfection by these signes: the leaues are very big and large withall; the tree putteth forth yong shoots straight, whereas in others they be crooked and bend inward: the berries also stand in their clusters directly vpright. Moreouer, whereas the branches of all other *Iuies* be made like vnto roots, this hath boughes strong and sturdy about the rest; and next vnto it, the black kind: howbeit this property hath the white *Iuie* by it self, that amid the leaues it putteth forth armes that clasp and embrace the tree round on euery side: which it doth vpon walls likewise, although it cannot so well compasse them. And hereupon it is, that although it be cut asunder in many places, yet it continueth and liueth still: and looke how many such arms it hath so many heads likewise of roots are to be seen, whereby it maintaineth it selfe safe and sound; and is besides of that force, as to suck and choke the trees that it claspeth. Furthermore, there is great diuersity in the fruit, as well of the white as the black *Iuie*. As for the rest, the berries of them are so exceeding bitter, as no bird wil touch them. And yet there is one kind more of *Iuy*, which is very stiffe and standeth alone of it selfe without any prop to beare it vp: and this of all others only, is therupon called *Cissos* or *Iuie* indeed. Contrariwise, *Chamaecissos*, [i. ground *Iuie*] is neuer knowne but to creep along the ground.

CHAP. XXXV.

¶ Of the Bind-weed or *Iuie* called *Smilax*.

D Like vnto *Iuie*, is that plant which they call *Smilax*, or rough Bind-weed. It came first out of Cilicia, howbeit more commonly it is to be seen in Greece: it putteth forth stalks set thick with ioints or knots, and those thrust out many thornie branches. The leafe resembleth *Iuie*, and the same is small, and nothing cornered: from a little stele that it hath, it sendeth forth certain pretty tendrils to clasp and wind about: the floure is white, and smelleth like to a Lilly; it beareth clusters comming nearer to those grapes of the wild vine *Labrusca*, than to the berries of *Iuie*; red of color, whereof the bigger contain within them 3 kernels or pepins apiece; the smaller but one, and those be hard and black withall. This *Smilax* is not vsed in any sacrifices or diuine seruice of the gods, nor serueth for garlands and chaplets: for that it is held to be dolefull and ominous, or of an vn lucky presage, by occasion of a certain yong lady or Damo-sell of that name, who for the loue of the yong gallant and knight *Crocus*, was turned into this shrub or plant, retaining still her name: which the ignorant people not knowing, but taking it for a kind of *Iuie*, stick not to make coroners therof; profaning by that means many times their high feasts and sacred solemnities: and yet who woteth not with what chaplets Poets are crowned, and what garlands prince *Bacchus* or *Silenus* vsed to weare? Of this *Smilax* are made certain manuell writing tables. And this property moreouer hath the wood thereof, That if a man hold it close to his eare, he shall heare it to giue a pretty sound.

But to returne againe to the *Iuie* indeed, it hath (by report) a strange and wonderful vertue to trie wines, whether they be delaied with water or no: for make a cup of *Iuie* wood, and put wine thereinto, all the wine will foke and run through, but the water (if any be mingled therewith) will tarry behind.

CHAP. XXXVI.

¶ Of Reeds, Canes, and other water shrubs.

I N this discourse touching plants that loue cold places, it wil not be amisse to treat of those that grow in waters. Among which, the Reeds and Canes may be ranged in the first place: for

For Arrowes
and Darts.
For writing
pens.
For Flutes
and Pipes.

for necessarie they be in time both of * war and * peace: they haue their vse besides; and are accepted among the * delightfull pleasures of this world. Moreover, in the Northern regions, the people vse therewith to couer and thatch their houses: and this kind of roofoe will last many ages, if it be laid with a thick coat, euen vpon high and stately houses. In other parts also of the world, they are wont with it to make their arch-roofes, and hanging floores of most sleight worke. As for Canes particularly, and those of Egypt by name, which haue a certaine resemblance of the Papyr-reed in Nilus, they serue for writing Paper. Howbeit those of Gnidus, and which grow in Asia along the lake or meere of Anaia, be held for the best. As for ours heere in Italy, they are of a more spongy substance and gristly matter, apt to sucke and drinke vp any liquour. The same within-forth is full of holes and concavities, but conuerted aloft into a fine woody rind, and in time becometh drie, fast, and hard. Apt it is to cleaue, and the cliffs euermore carry with them a very sharp edge; and besides, it is full of ioints. Now this woodie substance being thus distinctly parted by knots, runneth alwaies euen and smooth, growing smaller and smaller vntill it proue sharpe pointed in the top: with a head consisting of a good thicke downe or plume, which serueth also to right good purposes: for either in stead of feathers they vse to stuffe beds therewith in common Innes; or when it is growne hard and hath a slimie callositie about it, they in Picardie and those Nether-lands do stampe it, and therewith calfet or calke the ioints of their ships, betwene the ribs and planks: and herein it hath no fellow, for it taketh faster hold than any glue, and for filling vp any rifts and chinks, no solder so strong, no pitch so sure and trustie. Of Reeds, the Easterlings make their shafts; and archers they be that fight their battels and determine all quarrels. These shafts they arme with sharpe barbed arrow heads in manner of fish-hooks, which wound with a mischief, because they cannot be drawne out of the body againe: and to make these arrowes flie the faster and kill more presently, they set feathers vnto them. Now say that a shaft be broken as it is set fast in the body, that end without the flesh will serue againe to be shot: & so inured are the people in those parts to this kind of weapons, so practised withall in discharging of them so nimbly, that a man seeing how thick the shafts flie in the aire, would say they were a cloud of arrowes that shadowed the very Sun. And therefore when they goe to battell, they wish cuer for faire weather and Sunne-shine daies. Windes and raine, as most aduerse vnto their warres, they cannot abide: then are they quiet and rest in peace, full sore against their wils, because their weapons at such a time will not serue their turne. Certes if a man would fall to an exact reckoning and estimate of Ethiopians, Egyptians, Arabians, Indians, Scythians, and Bactrians, of so many nations also of the Sarmatians, and other East countries, together with all the kingdomes of the Parthians, hee should finde, that the one moiety or halfe of the world hath been vanquished and conquered by the meanes of arrowes and darts, made of Reedes. The Candioti aboute all others, were so readie and perfect in this kinde of feat, that the ouerweening of their owne skill, and the confidence which they had in this manner of seruice, made them too bold, and was in the end their owne ouerthrow. But herein also, as in all other things: else whatsoever, Italie hath carried the name, and wone the prize: for there is not a better Reed growing for to make shafts, than that which is found about the Rhene, a little riuer running vnder Bononia: very full of marrow or pith, stiffe also it is and weightie withall; it cutteth the aire, it flyeth away most swiftly, and last of all, it will hold the owne and stand in the weather so counterpoised, that no winde hath any power on it. And those Reeds in Picardie and the Low-countries, are nothing comparable: yet of Candie, how highly soeuer they be commended for warre-seruice. And yet the Reeds that grow in India be preferred before them, and beare the name, which indeede some thinke to be of another nature, considering they bee so firme and bigge withall, that beeing well headed with yron, they serue in stead of Speares and Iauelins. In very truth, the Indian Canes for the most part, grow to the bignesse of Trees, such as we see commonly in Temples, standing there for a shew. The Indians doe affirme, that there is a difference amongst them also, in regard of sexe: and namely, That the substance and matter of the male, is more fast and massie: but that of the female, larger and of greater capacitie within. Moreover, (if wee may beleue their words) the verie Cane betwene every ioint, is sufficient to make a boat. These great Canes do grow principally along the riuer Acesine. All Reeds in generall, doe shoot and spring in great number from one root and principall stocke: and the more they bee cut, the better they come againe. The root liueth long, and without great iniurie offered vnto it, will not die: it also is di-

uided

A vided into many knottie ioints. Those onely of India, haue short leaues. But in all of them, the leafe springeth out of the ioint, which embracing the Cane, doth clad it round about with certaine thin membranes or tunicles, as far as to the middle space between the ioints, and then for the most part they giue ouer to clasp the Cane, and hang downward to the ground. As well Reeds as Canes, spread their leaues like wings round one after another, on either side vpon the very ioints, and that in alternative course alwaies very orderly; so as if the one sheath come forth of the right side, the other at the next ioint or knot about it, putteth out on the left, and thus it doth throughout by turnes. From these nodosities, otherwhiles a man shall perceiue as it were certaine little branches to breake forth, and those bee no other but small and slender Reeds.

B Moreover there be many kindes of Reedes and Canes: for some of them stand thicker with ioints, and those are more fast and solid than others, & small distance there is between the same: there be againe that haue not so many of them, and greater space there is from the one to the other, and such Canes for the most part are of a thinner substance. Yee shall haue a Cane all full of holes within, called therupon Syringias, and such are very good to make whistles or small flutes, because they haue within them neither gristly nor fleshy substance. The Orchomenian Cane is hollow throughout from one end to the other, and this they call Auleticus, or the pipe Cane, for as the former was fit for flutes, so is this better for great pipes. Now you shall meet with Canes also that stand more of the wood, & haue but a narrow hole and concavity within, and this is full of a spongy pith or marrow within-forth. Some be shorter, some longer than C other: and where you haue one that is thin and slender, you shall spie a fellow to it more grosse and thicker. That which brancheth most, & putteth forth greatest store of shoots, is called Donax, and is neuer known to grow but in marshes and watery places (for herein also lieth a difference) and preferred it is far before the Reed that commeth vp in dry ground. The archers reed is a feuerall kind by it selfe (as we haue shewed before;) but of this sort, those in Candy haue the greatest spaces betwene every ioint; and if they be made hot, they are very pliable, and will bend and follow which way soeuer a man would haue them.

Moreover, Reeds are distinguished one from another by the leafe, not for the number, but the strength and colour. The leaues of those about Lacedaemon, * are stiffe and strong, growing thicker of the one side than of the other. And such as these are thought generally to grow a long standing pooles and dead waters, far vnlike to those about running riuers: and besides, to be clad with long pellicles, which clasp and climbe about the Cane higher aboue the ioint, than the rest doe. Furthermore, there is another kind of Reeds that groweth crooked and winding trauers, and not vpright vnto any height, but creeping low toward the ground, and spreading it selfe in manner of a shrub. Beasts take exceeding great delight to feed thereof, and namely, when it is young and tender, for the sweet and pleasant taste that it hath. Some call this Reed, Elegia.

Over and besides, there breedeth in Italy also among the fens, a certain salt some, named * A-darca, sticking to the rind or vtmost barke of Reedes and Canes, onely vnder the verie tuft and head: passing good it is for the tooth-ach, by reason of the hot and caustick quality that it hath like to Scallie or Mustard-feed. As touching the Reed-plots about the Orchomenian lake, I must needs write more exactly, considering in what admiration they were in times past: for in the first place, they called that Cane which was the thicker and more strong, Characias; but the thinner and more slender, Plotia. And this verily was wont to be found swimming in the Islands that floated in the said lake; whereas the other grew alwaies firme vpon the bankes and edges thereof, how farre soeuer it spread and flowed abroad. A third sort also there is of Canes, which they called Auleticon, for that it serueth to make flutes and pipes of: but this commonly grew but every ninth year: for the said lake also kept that time just, and increased not aboue that terme; but if at any time it chanced to passe that time and to continue full two yeres together more than ordinary, it was holden for a prodigious and fearfull signe. The which was noted at Charonia, in that vnfortunate battell wherein the Athenians were ouerthrowne and defeated: and many times else is obserued to happen about Lebadia, namely when the Riuer Cephissus riseth so high, that he swellth ouer his bankes, and is discharged into the said lake. Now during that ninth year (whiles the inundation of the lake continueth) these Canes prooue so bigge and strong withall, that they serue for hawking poles, and fowlers perches:

T t 2

and

* Paria, or Persicolar, mirra, Theophr. i. of diuers colours

* Calamagrostis

and then the Greeks call them Zeugitæ. Contrariwise, if the water hold not so long, but do fall and return back within the yere, then the Reeds be small and slender, named *Bombyciæ*. Howbeit the femals of this kind, haue a broader and whiter leafe, little or no down at all vpon them, and then they are known by a pretty name and called *Spadiones*, as one would say guelled. Of these Reeds were made the instruments for the excellent close musick within houses wherein, I cannot passe with silence, what a wonderful deale of paines and care they tooke to fit them for their tune, and make them to accord: in so much, as we are not to be blamed but born withall, if now adays we chuse rather to haue our pipes and hautboies of siluer. And in truth, to the time of *Antigenes* (that excellent minstrell and plaier vpon the pipe) all the while that there was no vse but of the plain musick and single instrument, the right time of cutting down & gathering these Reeds for this purpose, was about September, when the signe *Arcturus* is in force: then were they to haue a seasoning and preparation for certaine yeares, before they would serue the turne, yea and then also much ado there was with them, and long practise and exercise they asked, before they could be brought into frame and good tune: so as a man might wel say, that the very pipes were to be taught their sound and note, by meanes of certaine tongues or quills that struck and pressed one vpon another; and all to giue contentment and shew pleasure vnto the people assembled at Theatres, according as those times required. But after that musicke came once to be compound, and that men sung and plaied in parts with more varietie and delight, they began to gather these Reeds before mid-Iune, and in three yeares space they had their perfection and grew to their prooff; then were those tongues or holes made more wide and open, for to quauer and change the note the better; and of such are the flutes and pipes made, which be vsed at this day. But in those times men were persuaded, that there was a great difference in the parts of any Reeds for to serue these or those instruments: in such sort, as that ioint which was next vnto the root, they held to be meeter for the Base pipe that was fitted for the left hand, and contrariwise for the Treble of the right hand; those knots that were toward the head & top of the Reed. Howbeit of all others, by many degrees were those preferred which grew in the riuer *Cephissus*. Now adays, the hautboies that the Tuscans play vpon at their sacrifices, be of Box-wood; but the pipes vsed in plaies for pleasure only, are made of the *Lotos*, of *Asses* shank-bones, and of siluer. The best Faulconers Reeds wherewith they vse to chase foules, came from *Panhormus*: but the Canes for angle-rods that fishers occupie, are brought out of *Africk* from *Abaris*. The Italian Reeds & Canes be fittest for to make perches to lay ouer frames, & props for to beare vp vines. Finally, as touching the setting of Reedes, *Cato* would haue them to be planted in moist grounds, after they haue bin first delued & laid hollow with a spade; provided alwaies that the oelers stand 3 foot asunder, and that there be wilde Sparages among, whereof come the tender crops for sallads; for those like well and fort together with the Canes.

CHAP. XXXVII.

¶ Of the Willow or Sallow, eight kinds thereof: and what trees besides the Willow are good for bindings. Also of Briers and Brambles.

Moreover (after the opinion of the said *Cato*) it is good to plant Withies also about riuer sides, and neere to Reeds: for surely there is not more profit arising from any other tree of the waters, than from it; howsoeuer the Poplars are well liked and loued of the vines, and do nourish the good wines of *Cæcubum*; howsoeuer the Alders serue in stead of rampiers and strong fences against the inundation and ouerflowing of riuers, withstanding their forcible eruptions; howsoeuer they stand in the waters as mures and wals to fortifie the banks, or rather as sentinels to watch and ward in the borders of country farms; and being cut down to the root, do multiply the rather, and put forth many shoots and imps as heires to succeed. And to begin withall, of Sallows there be many kinds: for some there be, that in the head beare perches of a great length to prop and make trails for vines to run vpon: and the rind or skin as it were pilled from the wood, is as good as a belt or thong to binde or gird any thing withall. Others againe there are, and namely the red Willows, which carry twigs and rods that are pliable and gentle to wind as a man would haue them; fit also for buildings. Ye shal haue of these Osiers, some that are very fine & passing slender, wherof are wrought pretty baskets, and many other dainty devices; others also that are more tough and strong, good to make paniers, hampers, and a thousand other

A other necessary implements for country houses, and to fit the husbandmen. Being pilled, they are the fairer and whiter, more smooth also and gentle in hand, whereby they are excellent good for the more delicate sort of such wicker ware, and better far than stubborn leathers; but principally for leaning chairs, wherein a man or woman may gently take a nap, sitting at ease and repose most sweetly. A willow, the more that it is cut or lopp, the better spring will it shoot at root, and beare the fairer head. Let that which you cut or shred, be so little & short withall, that it resemble a mans fist, rather than a bough, the thicker will it come again: a tree no doubt that would not be set in the lowest rank, but bewel regarded, howsoeuer we make but base reckoning thereof; for surely there is not a tree for reueneue and profit, more safe and certain; for cost, lesse chargeable; and for injury of weather, in better security. *Ceites*, *Cato*, among the commodities that commend a good farm or manor, esteemeth it in the third place, and preferreth the increase and benefit thereby, before the gain that groweth from oliue rows, corn fields, & good meadows. Yet hereof we must not infer, that we are not furnished with many other things which wil serue for bands to bind withall; for we haue certain sorts of Spart or Spanish broom, we haue Poplars, Elmes, the Sanguine-shrubs, Birch, clouen Reeds, leaues of Cane; as for example in *Liguria*: the cuttings also of the very Vine, and Briers, so their sharp prickles be cut away, to tie withall; yea and the Hazell wands also, so they be writhen and twined: wherein a man may see a wonderful property, That a wood should be stronger for to bind withall, when it is crushed and bruised, than whiles it was entire and sound. All these (I say) are good for bands, and yet the willow hath a gift therein beyond all the rest. The Greek willow is red, and commonly is sluken for to make withs. The American Osier is the whiter, but more brittle, and soon wil crack, & therefore it is put to that vse of binding, sound and whole, as it groweth, and not clouen through. In Asia, they make account of three sorts of willows: the black, which they imploy to wind and bind withall, so tough and pliant it is; the white, wherewith husbandmen make their wicker paniers and baskets, with other such vessels for their vse; as for the third, it is the shortest of all other, and they call it *Helix* or *Helice*. With vs also here in Italy, there be as many kinds, & those distinguished by their seuerall names; the first, which is of a deep purple colour, they call the free osier or willow; and that is so good for bands: the second, which is more thin and slender, is named *Vitellina*, for *Vitellina* rather, for the yellow colour of the yolke of egges; for the bright hew that it hath: the third that is smallest of all three, is the French willow.

To come now to the brittle Rushes that grow in marsh grounds, which serue to thatch houses and to make mats; and the pith wherof when the rind is pilled, maketh wicke for watch-candles, and funeral lights to burne by a dead corps whiles it lieth above ground, they cannot iustly be reckoned in the ranke either of shrubbes, or Brier-bushes, and Brambles, ne yet of tall plants growing vp with stems and stalks, no more than among Hearbes and Weeds creeping along the ground; but are to be counted a seuerall kind by it selfe. True it is, that in some places there are to be found rushes more stiffe, hard, and strong, than in others. For not onely mariners and watermen in the riuer *Poddus* make sailes thereof, but fishermen also of *Africk* in the maine sea; wherby they haue their sailes, betwene the masts, from mast to mast, after a preposterous manner contrary to all other. The *Mosses* also do couer their cottages with Bulrushes; and surely if a man looke neerly to the nature of them, they may seeme to serue for that vse which the Papyr-reeds in the netherland of Egypt are put vnto, about the descent and fall of the riuer *Nilus*; for as much as the willow hath no paine to growe in water, so the Bulrush hath no paine to growe in water.

As touching Brambles, they may grow among the shrubs of the water: so may the Elders also, which cometh of a spongy kind of matter, & yet cannot wel be counted among those plants which bee termed *Penels* or *panes*. For surely the Elder standeth more vpon the wood than they do. The shepherds are verily persuaded, that the Elder tree growing in a by-place farre out of the way, and from whence a man cannot heare a cock crow out of any town, maketh more shrill pipes and louder trumpes than any other. The Brambles beare certaine berries like the Mulberries, euen as the sweet Brier of another kind, which they call *Cynosbatos* or the *Eglantine*, beareth the resemblance of a Rose. A third sort there is of brambles, which the Greeks call *Idea*, of the mountaine *Ida*, this is the *Raspis*; smaller it is and more slender than the rest, with lesse prickles vpon it, and nothing so sharpe and hooked. The floure of this *Raspis* beeing tempered with hony, is good to be laid to beaied and bloud-shotten eies; as also to the wild-fire, or disease called *Saint Anthonies fire*. Being taken inwardly, and namely drunk with water, it is very

comfortable to a weake stornacke. The Elder beareth certain blacke and small berries, full of a grosse and viscous humor, used especially to die the haire of the head black. If they be boiled in water they are good and wholsome to be eaten as other pot-herbs.

CHAP. XXXVIII.

¶ *Of the iuice or humor in trees. The nature of their wood and timber. The time and manner of felling and cutting downe trees.*

Trees haue a certaine moisture in their barks, which we must vnderstand to be their very blood, yet is it not the same nor alike in all: for that of the Fig trees is as white as milke, and as good as rendles to giue the forme to cheefe. Cherry trees yeeld a glutinous and clammy humor, but Elmes a thin liquor in manner of spittle. In Apple trees the same is fattie and viscous; in Vines and Pyrries waterish. And generally, those trees continue and liue longest, that haue such a glewy moisture in them. In summe, there are to be considered in the substance and body of trees, like as of all other liuing creatures, their skin, their blood, flesh, sinues, veins, bones, and marrow. For in lieu of their hide is the barke. And I assure you, a strange and maruellous thing it is to be obserued here in the Mulberry, that when Physicians seek to draw the foresaid liquor out of it, at seuen or eight a clocke in a morning, if they scarifie or lightly cut the bark with a stone, it issueth forth, and they haue their desire: but if they crush or cut it deeper in, they meet with no more moisture than if it were stark dry. In most trees next to the skin lieth the fat: this is nought else but that white sap which of the colour is called in Latin Alburnum. As it is soft in substance, so is it the worst part of the wood; and euen in the strong oke, as hard as otherwise it is, ye shal haue it soon to putrifie and rot, yea and quickly be worme-eaten. And therefore if a man would haue found and good timber, this white must be alwaies cut away in the squaring. After it followeth the flesh of the tree; and so the bone, which is the very heart and best of the wood.

All trees whereof the wood is ouer dry, beare fruit but each other yeare, or at leastwise more in one yere than another, as namely the Oliue tree: a thing obserued more in them than in those that haue a pulposus and fleshie substance, as the Cherry tree. Neither are all trees indifferently furnished with store of the said fat or flesh, no more than the most fierce and furious beasts. As for the Box, Cornel, and Oliue trees, they haue neither the one nor the other, ne yet any marrow at all, and but very little blood. Semblably, the Seruis tree hath no heart, the Alder no carnositie, (and yet both of them are stored wel enough with marrow, which is their pith) no more than canes or reeds for the most part. In the fleshy substance or wood of some trees there are to be found graine and veine both. And easie it is to distinguish the one from the other: for commonly the veins be larger and whiter; contrariwise the grain, which the Latines call Pulpa, runneth streit and direct in length, and is to be found ordinarily in trees that wil easly cleaue. And hereupon it commeth, that if a man lay his eare close to one end of a beame or piece of timber, he shall heare the knocke or pricke that is made but with a pen-knife at the other end, be the piece neuer so long, by reason that the sound goeth along the stieit grain of the wood. By this means also a man shall find when the timber doth twine, and whether it run not euen, but be interrupted with knots in the way.

Some trees there be that haue certain hard bunches bearing out and swelling like to kernels in the flesh of a Swines necke: and these knobs or callosities haue not in them long grain and broad veine, as is aboue said, but only a brawny flesh (as it were) rolled round together: And to say a truth, when such knurres and callosities as these be, are found either in Citron or Maple trees, men make great account of them, and set no small store by that wood. All other sorts of Tables, when the trees are clouen or sawne into planks, are brought into a round compasse with the grain: for otherwise, if it were slit ouerthwart to make them round against the grain, it would soon breake out. As touching the Beech, the graine of it runneth crosse two contrary wayes like combe teeth; but in old time the vessels made of that wood were highly esteemed. As for example, *Manius Curius* hauing subdued his enemies, protested, and bound it with an oath, That of all the booty and pillage taken from them, hee had not reserved any thing for himselfe, but onely a cruet or little Ewer of Beech wood, wherein he might sacrifice vnto the gods.

There

A There is no wood but floteth aloft the water, and waueth in length: like as that part which is next to the root is far more weighty, setleth faster downe and sinketh. Some wood hath no veins at all, but consisteth only of a meere grain, streight and small in maner of threds, & such commonly is easie to be clouen. There is again wood that hath no such direct graine, and that will sooner breake out than cleaue; and of this nature is the Oliue and Vine wood. Contrariwise, the whole body and woody substance of the Figge tree is nothing but flesh. The Mast-holme, Cornel, Oke, Tretrefolie, Mulberry, Ebony, and Lotus, which haue no pith and marrow within, as is before said, are all heart. All wood for the most part turneth to a blackish colour. The Cornel tree is of a deep yellow, wherof are made the faire Bore-speare staues, which shine again, and be studded (as it were) with knots, and chamfered betwene both for decencie and handfomnesse. The Cedar, Larch, and Iuniper wood is red.

CHAP. XXXIX.

¶ *Of the Larch tree, the Firre, and the Sapine: the manner of cutting or falling such like trees.*

T Here is a female Larch tree which the Greeks call *Ægis*: the wood whereof is of a pleasant colour, like to hony. Painters haue found by experience, that it is excellent good for their tables, both for that it is so euen and smooth, not apt besides to chink and cleaue: as also because it will endure and last for euer. And that part they chuse which is the very heart of it, and next the pith, which in the Fir tree the Greekes call *Leuson*. In like sort the heart of the Cedar is hardest which lieth next to the pith or marrow aboue named (much after the manner of bones in the bodies of liuing creatures) when the muddy carnositie is scraped off and taken away. The inward part also of the Elder by report is wondrous hard & tough, and they that make thereof staues for Bore-speares prefer it before any wood whatsoeuer. For it standeth only vpon skin and bone, that is to say, of the rind and heart.

Theophrastus
writeth this of
the Cornell
tree.

As touching the falling and cutting downe of trees, to serue either in temples or for other uses, round and entire as they grow, without any squaring; as also for to barke them, the onely time and season is, when the sap runs, and that they begin to bud forth: otherwise you shal neuer be able to get off their bark: for bark them not, they wil rot and become worm-eaten vnder the said barke, and the timber withall waxe dusky and blacke. As for the other timber that is squared with the axe, and by that means rid from the barke, it would be fallen or cut downe between mid-winter and the time that the wind raronius bloweth: or, if we be forced to vse the timber before, and to prevent that time, trees may be fallen at the setting of the star *Arcturus*, or of the Harp-star before it. Finally, the vtmost and last time thereof is at the summer Sunne-set, But forasmuch as most men be ignorant of these seasons, and know not when these starres aboue named do either rise or fall, I will hereafter shew the reason both of the one and other in place conuenient. For this present, as touching the time of felling trees, the common sort make no more scruple, but thinke it sufficient to obserue, that no trees which are to be hewne square for carpenters work be cast down and laid along before they haue borne their fruit. As for the hard and sauge Oke, if it be felled in the spring it will be subiect to the Worme: but cut it down in mid-winter, it will neither warp, ne yet cleaue and chink: being otherwise subiect vnto both, namely, as well to cast and twine, as to rift and gape: a thing incident to the Cork wood, be it cut down in as good a season as is possible. Moreover, it passeth to see how much the age of the Moon auaileth in this case: for it is commonly thought that timber would not be fallen but in the wain, and namely in the last quarter, from the 20 day of the Moon, till the thirtieth. And this is generally receiued among all good workmen, That the best time to cut downe any timber, is in the conjunction of the Moon with the Sun, euen in the very day of the change, before the sheweth new. Certes *Tiberius Cesar* the Emperor gaue order to fel the Larch trees that came out of Rhoetia, to repaire and re-edifie the bridge that serued to represent the shew of a naual battell vpon the water (which fortunated to be consumed with fire) iust at the change of the Moon. Some say, that we must precisely obserue the point of the conjunction, and that the Moon withall be vnder the earth, when such trees should be felled: which cannot be but in the night. But if it fall out besides, that this conjunction or change of the Moone, and the last day of the Winter-Sun-stead meet together at one instant; the timber then cut downe will last a world.

world of yeares. Next vnto it is that timber which is fallen in the daies and signes aboue rehearsed. Others affirme moreouer, that the rising of the Dog-star would be considered and chosen for this purpose: for at such a time was that timber felled which serued for the stately hall or pallace of *Augustus*. Moreouer, for to haue good and profitable timber, the trees would be cut down that are of a middle age, for neither yong poles nor old runts are fit for durable building. Furthermore, there be that hold opinion, that for to haue the better timber, the trees should haue a kerse to the very heart and pith round about, and so let it stand an end still, that all the humor by that means might run out, before they be ouerthrowne and laid along. And verily a wonderfull and miraculous thing is reported in old time, during the first Punickewar against the Carthaginians, namely, that all the ships of that fleet which was conducted by Generall *Duellius* the high Admiral, were shot into the sea and vnder saile, within sixty daies after the timber wherof they were built was cut downe in the wood. And *L. Piso* hath left in writing, That against king *Hiero* there were 220 ships made & furnished in 45 daies after the timber grew. Also in the second Punick war, the Armado which *Scipio* imploied, was set afloat and bare saile forty daies after the fall of the timber. See how forcible and effectuell in all things is the season and opportunitie of time duly taken, especially when need driueth to make speed and hasten apace.

Gato the chiefe and only man of all others for experience and knowledge in euery thing, in his treatise of all kind of timber to be imploied in building, giues these rules following. Make thy presfing plank especially of the black * Sapine or Horn-beam tree. *Item*, Whensoever thou meanest to storke vp either Elme, Pine, Walnut tree, or any other whatfoeuer for timber, see thou dig it out of the ground, in the wane of the Moon, and that in the afternoon, and take heed in any wise that the wind be not South. *Item*, The right season to fell a tree for timber, is when the fruit is full ripe. *Item*, Beware in any case, that thou neither draw forth of the ground, nor yet square a tree when the dew falleth. And a little after: Beware thou meddle not with timber trees but either at the change or full of the Moon. And in no hand, neither stork it vp then, nor hew it hard to the ground. But within foure daies after the full Moone, plucke vp trees hardly, for that is the best time. *Item*, Bewell aduised, that thou neither fell, square, nor touch with the ax, any timber that is black, vnlesse it be dry. And meddle not with it, if either it be frozen or full of dew. *Tiberius* the Emperour aboue named obserued likewise the change of the Moon, for cutting the haire both of head and beard. And yet *M. Varro* gaue a rule, That to preuent baldnesse and the shedding of haire, the Barber should be sent for alwaies after the full Moon.

But to come again vnto our timber trees: The Larch and Fir both (but the Fir especially) if they be cut down, bleed a long time after, and yeeld abundance of moisture. Indeed, the fewtwaile of all others be the tallest, and grow most streight and vpright. For Mast-poles and crosse saile-yards in ships, the Fir or Deale is commended and preferred before all other, for the smoothnes and lightnesse withall. The Larch, the Fir, and the Pine haue this propertie common to them all, To shew the graine of their wood running either parted in foure, forked in twaine, or single one by one. For fine carpentry and Ioiners feeling within house, the heart of the tree would be clouen or rent. The quarter timber, or that which runneth with foure grains, is simply the best, and more pleasant to be wrought than the rest. They that be skilfull woodmen, and haue experience in timber, wil soon find at the first sight the goodnes of the wood by the very bark. That part of the Fir tree which groweth next to the earth is without knots, even and plain: the same is laid to foke and season in the water, and afterwards the barke is taken off, and so it commeth to be called Sapinus. The vpper part is knotty, and harder than the nether, and the Latins name it *Fusterna*. In sum, what tree foeuer it be, that side which regardeth the North is more strong and hard than the other. And generally, the wood of those trees that grow in moist and shadie places is worse: contrariwise, that which commeth from ground exposed to the Sun-shine is more fast and maffie, and withall endureth a long time. And herupon it is, that at Rome the Fir trees that come from the nether sea side out of Tuscan, be in better request than those from Venice side, vpon the coast of the vpper sea.

Moreouer, there is great ods between Firre trees, in regard of diuers Countries and Nations where they grow. The best are those of the Alps and the Apennine hills. Likewise in France there are excellent good Firs vpon the mountains Iura and Vogesus: as also in Corsica, Bithinia, Pontus, and Macedonia. A worse kind of them grow in Arcadia and about the mountaines neere

A neare *Aenea*. The worst be those of *Pernassus*, & *Euboea*: for in those parts they be full of boughs and grow twined, besides, they soone doe putrifie and rot.

As for Cedars, the best simply be those that grow in Candy, Affricke, and Syria. This vertue hath the oile of Cedar, That if any wood or timber be thoroughly anointed therewith, it is subiect neither to worme nor moth, ne yet to rottenesse.

The Juniper hath the same propertie that the Cedar. They proue in Spaine to be exceeding big and huge, the Berries also greatest of all others. And wherefoeuer it grows, the heart thereof is more found than the Cedar.

A generall fault and imperfection there is common to all wood. When the graine, and the knots run into round balls, and such they call in Latin *Spiræ*. Also in some kind of timber, like as in marble also there be found certaine knurs like kernils, as hard they be as naile heads, and they plague sawes, wherefoeuer they light vpon them. Otherwhiles they fall out to be in trees, by some accidental occasion, as namely, when a stone is got into the wood, and enclosed within it: or, in case the bough of some other tree be incorporat or vnited to the foresaid wood. There stood a long time a wild Oliue in the market place of *Megara*, vpon which the hardie and valiant warriors of that citie vsed to hang and fasten their armor, after some worthy exploit performed: which in tract and continuance of time were ouergrown with the bark of the said tree, and quite hid. Now was this a fatal tree vnto the same city and the inhabitants thereof, who by way of Oracle were forewarned of their wofull destiny and vtter ruin, which was to happen. When that a tree should be with yong, and deliuered of harneis: which Oracle was fulfilled when this tree was cut downe, for within the wombe thereof were found the mourrions, jambriers, or grieues, of braue men in times past. To conclude, it is said, That such stones so found in trees be singular good for a woman with child, to carie about her, that she may goe her full time.

CHAP. XL.

¶ Of diuers sorts of timber. Of certaine trees of extraordinarie bignesse. What trees they be that neuer be worme-eaten, nor decay and fall. What wood doth endure and continue alwaies good.

THE greatest tree that to this day had euer been knowne or seene at Rome, was that, which being brought with other timber for the rebuilding of the foresaid bridge called *Nau-macharia*, *Tiberius Caesar* commanded to be landed and laid abroad in view for a singular and miraculous monument to all posteritie: and it remained entire and whole, vntill the time that *Nero* the Emperour built his stately Amphitheatre. This peece of timber was of a Larch tree: it contained in length 120 foot, and caried in thickenesse euery way two foot, from one end to the other. Whereby a man may guesse and judge the incredible height of the whole tree besides, to the very top. Such another tree there was to be seen in our daies, which *M. Agrippa* made in *Mars* field: and it continued still after the building of the muster place and treasure hall named *Diribitorium*. Shorter it was than the former by 20 foot, and caried a foot and half in thickenesse. As for the Fir tree, which serued for a mast in that huge ship, which by the commandement and direction of *C. Caligula* the Emperour transported and brought out of *Egypt*, that Obelisk which was erected and set vp in the Vatican hill, within the cirque there, together with the foure entire stones which bare vp the said Obelisk as supporters: it was seen of a wonderfull and inestimable height aboue all others: and certaine it is, that therewas neuer knowne to flore vpon the sea a more wonderful ship than it was. She receiued 120000 Modij of Lentils for the very ballast; she tooke vp in length the greater part of the left side of *Hofia* harbour: for *Claudius* the Emperour caused it there to be sunk, together with three mighty great piles or dams founded vpon it, and mounted to the height of towers, for which purpose there was brought a huge quantity of earth or sand from *Puteoli*. The maine bodie of this mast contained in compasse 4 fadom full. And a common by-word it is, currant in euery mans mouth, that Fir mast for that purpose, are vsually sold for eight hundred Sesterces a peece, and more monie: whereas for the most part planks which are set together and serue in stead of boats, ordinarily cost but forty. Howbeit, the kings of *Egypt* and *Syria*, for default and want of Fir (haue vsed by report) in stead thereof Cedar wood about their shipping. And verily, the voice goes of an exceeding

ceeding big one which grew in Cyprus, and was cut downe for a mast to serue that mighty gal-
leace of king *Demetrius*, that had eleuen bankes of oares to a side, a hundred and thirtie foot it
was high, and three fatham thicke. And no maruell, since that the pyrats and rousers, who haunt
the coasts of Germanie, make their punts or troughs of one entire peece of wood and no more,
wrought hollow in manner of a boat, and some one of them will hold thirtie men.

To proceed now vnto the sundry natures of wood. The most massie and fast wood, and ther-
fore the weightiest of all other, by judgment of men, is that of the Ebene and the Boxe: both
small trees by nature. Neither of them twaine swims aboue the water, no more will the Corke
wood, if it be barked, nor the Larch. Of all the rest, the saddest wood is that of Lotus, I meane
that which at Rome is so called. Next to it, is the heart of Oke, namely, when it is rid of the
white sappie wood: the heart (I say) which comes neare to a black color: and yet the Cytisus or
Tetrifolie is blacker, and seemeth most to resemble the Ebene. Howbeit, you shall haue some
who affirme that the Terebinth of Syria be blacker than it. There was one *Thericles* a famous
Turner, who was wont to make drinking cups, mazers, and bowles of the Terebinth, which is a
sufficient prooffe, that the wood is fine and hard. This wood alone of all others, loueth to be oil-
led, and surely the better it is for the oile. But a maruellous prety deuice there is to set a passing
faire blacke color, and a shining glosse vpon it, with Walnuts and wild Peares, namely, boiling
these together, and making thereof a mixture and composition to giue the said tinckure. All
these trees abouenamed haue a sad and fast wood. Next to them in that respect is the Cornell
tree: and yet I cannot properly range it in the order of timber trees, so small and slender it is.
Neither is the wood thereof in manner good for nought else but for spokes in cartwheels, also
to make wedges to cleaue wood, and tough pins, that wil hold as fast well neer as yron spikes. In
like sort, the Mast-holm, the Oliue both wild and tame, the Chestnut tree, the Hornbeam, and
the Poplar, be of an hard substance, and meet for this purpose: The wood hereof hath a curled
graine like the Maple, and surely would be as good timber as any, but for often lopping the
boughs, which guerdeth and deminisheth the strength. Moreouer, many of them there bee, and
the Oke especially, so hard, that vnlesse they be foked first in water, it is impossible to bore a
hole into them with an auger, or to pluck forth a nail if it be once set fast, water them as much
as you will. Contrariwise, the Cedar will not hold a nail. The wood of the Linden tree seemes
of all other to bee most soft, and hottest withall: for prooffe whereof, this reason men doe alleadge,
because it soonest turnes and dulles the axe edge. Of a hote nature also are the Mulberrie tree,
the Lawrell, and the Yvie, and in one word, all those that serue to strike fire with. This experi-
ment was first found out by spies, that goe between camp and camp, by shepheards also in the
field: for hauing not flint euermore readie at hand to smite and kindle fire withall, they make
shift for to rub and grate one wood against another, and by this attrition there fly out sparkles,
which lighting vpon some rinder, made either of drie rotten touchwood, or of bunts and wither-
ed leaues, very quickly catch fire, and burne not out. And for this intent, there is nothing bet-
ter than to strike the Yviewood, with the Bay. In this case also the wilde Vine (I mean not La-
brusca) is much commended: and it climbeth and runneth vpon trees in manner of Yvie.

The trees that grow in waterie grounds be coldest of all others: but such be toughest and
therefore best to make bucklers & targuets, the wood whereof, if it be cut, comes quickly toge-
ther, and closes vp the gash againe, and in that regard, much adoe there is to pierce it thorough
with any weapon whatsoeuer. And of this sort are Fig trees, Willowes, Lindens, Birch, Elder,
Ash, and Poplar. Of all these, the Fig tree and the Willow be lightest, and therefore fittest for
that purpose. These trees last rehearsed, be good for caskets and coffers: wicker baskets also and
prettie paniers, which be made of winding twigs. Their wood besides is faire & white, streight
also and easie to be grauen. The plane wood is soft and gentle, but moist withall, and so is the
Alder. Elme likewise, Ash, Mulberry, and Cherry-tree wood, is pliable, but drier and more pon-
derous. The Elme, of all kinds of wood, will keep streight and stiffe best, and not warp at all: &
because it twines and casts not, it is passing good for hinges and hooks, for sawne bords for led-
ges in dores and gates, so as this regard be had of exchange, that the vpper end of the bord that
grew toward the head of the tree, be fitted to the nether hinge or hooke of the dore; and con-
trariwise the butt end, serue the higher. The Date tree and the Corke, haue a soft and tender
wood. The Apple tree, Pear tree, and Maple, haue as sad and massie, but brittle it is, like as
all wood that goeth with a crosse and frised grain. And looke what tree soeuer is naturally hard
and

A and rough, the wild and the male of the same kind, haue their wood more churlish than other-
wise it is in the rest. Semblably, those that beare no fruit, are of a faster and firmer wood than
the fruitful: vnlesse it be that the males be bearers and the female barren, of which sort are
the Cypresse and Cornell trees. The wood of Cypresse, Cedar, Ebene, Lotus, Box, Yewgh, Tu-
niper, and the Oliue both sauage and gentle, is neuer worme-eaten, ne yet rotteth for age. As for
all other trees, long it is before these decay, to wit, the Larch, the Oke, the Corke tree, Chestnut
and Walnut tree. The Cedar, Cypresse, and Oliue wood, neuer doth chinke or cleaue of it self,
vnlesse it be by some accident.

It is commonly thought, that the Box, the Ebene, the Cypresse, and the Cedar wood, is euer-
lasting and will neuer be done. An euident prooffe thereof as touching all these sorts of timber,
by the judgment and choise of so many men, was to be scene in that famous temple of *Diana* in
B Ephesus: for al Asia set to their helping hand and contributed toward that work, which in foure
hundred yeres and not before, they brought to an end & finished. The beames, rafters, and spars
that went to the making of the rouse, were by the generall voice of the whole world, of Cedar
timber. As touching the statue or image it selfe of the goddesse *Diana*, it is not certainly knowne
of what wood it was: all writers, saue only *Mutianus*, report that it was of Ebene. As for him, a
man who had beene thrice Confull of Rome, and one of the last who vpon their owne sight of
the said thing, wrote therof, auoucheth that it was made of Vine wood; and that, howsoeuer
the temple was ruined and rebuilt againe no lesse than seuen times, yet the foresaid image was
neuer altered nor changed. Who saith moreouer, that *Caecilius* chose that wood for the best (for
so he named the workman that cut and carued it.) And I much maruel therat, considering that
C by his saying this image was of greater antiquity than that of lady *Minerva*, much more than of
prince *Bacchus*. He addes moreouer and saith, that this statue was embaulmed within, by reason
of the precious oile of Spiknard, which was distilled into it at many holes: by means of which
medicinable liquor, the wood was nourished, and the joints held close and fast together: where-
at I cannot chuse but maruell againe very much, that considering the statue was so small, it should
haue any peece or joint at all. Now as touching the leaues of the dores belonging to this tem-
ple, they were by his report, of Cypresse wood: and continued still fresh and new to the eye, not-
withstanding it is foure hundred yeres well neare since they were made. Where, by the way
this is to be noted, that these dores stood foure yeres glewed in the claue. And weryly, this wood
was chosen for that purpose, because among other properties, the Cypresse alone hath the gift,
to looke alwaies shining and polished, and neuer loseth the glosse and beauty. And for to proue
this, we need not to goe farre: Looke but vpon the emage of *Vejouis*, in the Capitol, made of
Cypresse wood, doth it not endure still faire and trim, and yet was it dedicated and consecra-
ted in that temple, in the yeare after the foundation of Rome, 551.

A famous and memorable temple there is of *Apollo* at Vtica, where the beames and maine
peece of timber, made of Numidian Cedars, remaine as whole and entire as at the first day
when they were set vp, which was when the citie was first founded: by which computation, they
haue continued already 1188 yeres. Moreouer, it is said, that at Saguntum a citie of Spaine,
there is a temple of *Diana* still standing, a little beneath the citie: and yet as king *Borcha* mine
Author saith, 200 yeres before the ruine and destruction of Troy, the same men that brought
the image of the said *Diana* from the Island Zacythus, founded the temple abouesaid. For the
antiquity and religion whereof, *Annibal* made some conscience to demolish it, and would not
once touch it: and therein are to be seen at this day the beames and rafters of Tuniper, sound and
good. But about all other, memorable is the temple of the said goddesse *Diana* in Aulis, which
was built many hundred yeres before the Trojan war, but what kind of timber was employed
about the Carpentrie thereof, is not well knowne. Howbeit, this we may boldly resolue vpon,
that the more odoriferous any wood is, the more durable also it is and euerlasting.

Next to these trees aboue rehearsed, the wood of the Mulberrie tree is most commended,
which in tract of time as it growes to be old, waxes also blacke. Moreouer, some kinds of wood
as they be more lasting than other, so they continue better being employed in one kind of work,
than they do in another. The Elme timber will well abide the aire and the wind. The wild Oke
Rober loueth to stand within the ground, and the common Oke is good in the water: let it be
vsed aboue ground to take the aire and the weather, it will cast, warpe, and cleaue too bad. The
Larch wood agreeth passing wel with water works, and so doth the black Alder. As for the Oke
Robur,

Robur, it will corrupt and rot in the sea. The Beech will doe well in water, and the Walnut tree likewise: but to stand within the earth, they are principall good, and haue no fellow. And for the Iuniper, it will hold the owne, being laid vnder ground, but for building aboue in the open aire, it is excellent good. The Beech and the Cerus wood rot quickly. The smal Oke called Esculus canot abide the water. The Cherrie tree wood is firme and fast: the Elme and the Ash are tough; howbeit, they will soone settle downward and sag, being charged with any weight, but bend they will before they break: and in case before they were fallen, they stood a while in the wood, after they had a kerfe round about, for their superfluous moisture to run out vntill they were well dried, they would be the better and sure in building. It is commonly said, that the Larch wood if it be put into ships at sea, is subiect to wormes: like as al other kinds of wood, vnlesse it be the wild and tame Oliue. Forto conclude, some timber is more readie to corrupt and be marred in the sea, and others againe vpon the land.

CHAP. XLI.

¶ Of wormes that breed in wood.

OF vermine that eat into wood, there be 4 kinds. The first are called in Latine Tereidines: a very great head they haue for the proportion of the body, and with their teeth they gnaw. These are found only in ships at sea, and indeed properly none other be Tereidines. A second sort there be, and those are land wormes or mothes, named Tineæ. But a third kind resembling gnats, the Greeks tearme by the name of Thripes. In the fourth place bee the little wormes: whereof some are bred of the putrified humor and corruption in the very timber: like as others againe engender in trees, of a worme called Ceraustes: for hauing gnawed and eaten so much, that he hath rounge enough to turne him about within the hole which he first made, hee engendreth this other worm. Now, some wood there is so bitter, that none of these wermin will breed in it, as the Cypresse: others likewise so hard, that they cannot eat into it, as the Box. It is a generall opinion, that if the Firre be barked about the budding times, at such an age of the Moon as hath been before said, it will neuer putrifie in the water. Reported it is by those that accompanied Alexander the great in his voiage into the East, that in the Isle Tylos lying within the red sea, there be certain trees that serue for timber to build ships, the which were known to continue two hundred yeares: and being drowned in the sea, were found with the wood nothing at all perished. They affirmed moreouer, that in the same Island there grew little plants or shrubs, no thicker than would wel serue for walking stauces to cary in a mans hand, the wood whereof was massie and ponderous, striped also and spotted in manner of a Tygres skin; but so brittle withall, that if it chanced to fall vpon a thing harder than it selfe, it would breake into fitters like glasse.

CHAP. XLII.

¶ Of timber good for Architecture and Carpentrie: what wood will serue for this or that worke: and which is the strongest and surest timber for rouses of building.

WE haue here in Italie, wood and timber that will cleaue of it selfe. For which cause our Maister Carpenters giue order to besmeare them with beasts dung, and so to liea drying, that the wind and piercing aire should not hurt them. The joists and planks made of Firre and Larch, are very strong, to beare a great weight, although they bee laid in length ouerthwart. Contrariwise, the Rafter made of the wild Oke Robur, and Oliue wood, will bend, & yeeld vnder their load: whereas the other named before, do resist mainly & withstand, neither will they easily break, vnlesse they haue much wrong: nay sooner do they rot, than faile otherwise in strength. The Date-tree wood also is * tough and strong, for it yeeldeth not, but curbeth the contrarie way. The Poplar setteth and bendeth downward: whereas the Date-tree contrariwise rises upward archwise. The Pine and the Cypres are not subiect either to rottenesse or worme-eating. The Walnut tree wood soone bendeth, and is saddle-backt as it lieth, (fortheroe, also they often vse to make beames and rafters) but before that it breaketh, it will giue warning by a cracke, which saued many a mans life in the Island Antandros, at what time

o Valide, &
3 theophrasti.

A time as being within the common baines, they were skared with the crack that the floore gaue, and ran forth speedily before all fell. Pines, Pitch trees, and Allar, are very good for to make pumps and conduit pipes to conuey water: and for this purpose their wood is boared hollow: lying buried vnder the ground: they will continue many a yeare sound and good: let them bee vncouered without any mound and lie aboue ground, they will quickly decay. But if water also stand about the wood, a wonder it is to see how they will harden therewith and endure. Firre or Deale wood, is of all other surest and strongest for rouses aboue head: the same also is passing good for dore leanes, for bolts and barres: also in all feelings and wainscot or whatsoeuer it bee, whether Greekish, Campaine, or Sicilian, it is best, and maketh very faire worke. A man shall see the fine shavings thereof run alwaies round and winding, like the tendrills of a vine, as the Ioyner runneth ouer the painels and quarters with his plainer. Moreouer, the timber of it is commendable for coaches and chariots: and there is not a wood that makes a better and stronger joynt with glew, than it doth: in so much, as the found plank will sooner cleaue in any other place, than in the joynt where it was glewed.

CHAP. XLIII.

¶ Of glewing timber: of rent, clouen, and sawen painell.

Great cunning there is in making strong glew, and in the feat of joyning with it, as well in regard of feelings and wainscot made of thin board and painell, as of marquetry & other inlaid workes: and for this purpose, Ioyners doe chuse the mistresse threadie grain that is most streight, which some call the Fertill veine, because ordinarily it breedeth others, and yee shall see it branching and curled, as if it shed teares and those trickling down. In every kind of wood whatsoeuer, the crisped graine will not take glew and beare a joynt. Some wood it is impossible to glew and joyne, with peeces of their owne kind, much lesse of other wood: as the hard Oke Robur. And lightly ye shall not haue peeces of a diuers nature, knit and unite well in a joynt, no more than if a man should go about to glew & join stone & wood together. The Seruise tree wood canot in any wise fort in a joynt with the Corneil wood; no more can the Horn-beame and the Box: after them, the Tillet or Linden wood may hardly away with his societie. To speak generally, whatsoeuer wood is gentle and apt to bend, (such as we call pliant) the same is good and easy to be wrought to any work that a man would haue: to which, you may put the Myrtle and wild Fig-tree. Durable and handfome withall, either to be cut, squared, clouen or sawen, are all those kinds of wood which be by nature moist. As for drie peeces of timber, they giue not way so fast to the saw, as greene: and yet you must except the Oke and the Box wood, which although they be greene, do stiffely withstand the saw-gate, choking and filling vp their teeth euen; by which means the slit is hindred, and the worke goeth not forward: which is the cause also that the sawyers draw vp & let downe the saw twice, before the teeth fend from them any dust into the pit. As for the Ash, it is most easie to be wrought, put it to what vse you will, and makes the fairest worke: and namely for horsemens stauces, better it is than Hazell, lighter than the Corneil, and more gentle and pliable than the Seruise wood. The French white Ash, it will bend well for cart-thills and fellies. The Elme would be very like vine-wood, but that it is more ponderous and heauie. The Beech is easie to be wrought into any form, brittle though it be and tender: yet thereof are made fine trenchers, thin shindles, and such like, as will wind and bend euery way: and therefore it is the only wood commendable for to make prettie caskets, panners, and boxes. The mast-Holme also may be cut into fine thin foile or leaues like plates, and those also are of a daintie and pleasant colour: but singular good is the wood thereof for such things as fret and wear with rubbing, and namely, the axle trees in wheelles: and as the Holme is fit for this purpose in regard of the hard wood, so the Ash likewise, because it is so lyth & pliable: in which two respects, the Elm is chosen before them both. Moreouer, the wood of these trees before named, are notable to make many prettie rooles that serue artizans in their daily worke: and therefore it is commonly said, That the wood of the wild Oliue, Boxe, mast-Holme, Elme, and Ash, are excellent good for awgre-handles and wimble stockes. Of the same also are made mallers, but beetle heads of the bigger sort, of the Pine and Holme. A great reason why these kinds of wood are the more tough and harder, is when the trees haue their right season, and be cut down in their best time, rather than too soon and before they be come to maturity.

Thus it hath beene knowne that doore-hinges and hookes made of Oliue wood (which otherwise is most hard) if they haue rested any long time, and not beene worne by shutting and opening too and fro, haue put forth fresh buds, as if they had growne still in the plant. As for the doore-barres and bolts, *Cato* would haue them made of Holly, Bay-tree, and Elme. The handles and helues of rusticall tooles, mattocke steeles, and spade trees, *Hyginus* willerth they should bee either of Hornebeame, Holme, or Cerrus. For fine painell in fret-worke, for feeling also and ouerlaying other wood, these are the chiefe, the Citron, Terebint, Maple of all sorts, Box, Date tree, Huluer, Holme, Elder root, and the Poplar. The Alder tree likewise (as hath beene said) afforderth certain swelling bunches & hard knots, which may be cut and clouen into most daintie flakes and precious leaues, as faire and pleasant to the eie for their damask branch, as either Citron or Maple: setting which three aside, there be no knurs and nodosities in any tree worth ought and of account.

Moreover, yee shall haue trees ordinarily in the mids toward the heart, carie a more crisped and curled wood; and the neerer it is to the but or root end, the finer is the graine, more branching also, and the streaks winding in and out. Loe, from whence first came the superfluous expence to couer and feele one wood with another! See how those trees which for their very wood were of no price, are become more costly and dearer, when they serue as a barke to clad others! that one tree forsooth by this means, should be so sold many & sundry times at a feuerall price. Thus haue beene deuised (I would not els) thin leaues of wood, like gold or siluer-foile. And yet that is not all: for there is come vp of late a deuise, to paint and die in sundrie colors the hornes of beasts, to cut and saw their teeth into thin plates: and whereas at first there was fret-work onely inlaid and set out with Iuorie here and there, soone after it came to passe, that the wood was couered all ouer therewith. Neither hath the ryot and wastfull prodigality of the world staid there, but proceeded farther, euen to search into the deepe sea for that, which might serue in stead of wood and timber. Thus the tortoise shel hath been cut into flakes and leaues, for want forsooth of wood vpon drie land. And now, of late daies, certaine monstrous spirits, during the Emuore of *Nero*, haue found out a deuise to disfigure the Tortoise shel also with paintings, that it might be sold the dearer when it lookt like wood. Thus means are wrought, that the price of beds should be raised and set vp by this meanes: thus they would haue the Terebint wood to bee excessive deare and aboue the worth: thus must the Citron wood be enhaunfed to an higher rate: and thus the Maple is counterfeited, Tortoise shells are foisted in the place and bought for it. To conclude, of late daies the curiositie of men was such, that they could not content themselues with rich and costly wood; and now for to beautify and set out ther wood, Tortoise shells must needs be bought, there is no remedie.

CHAP. XLIII.

¶ The age of trees: what kind of trees they be that are of least continuance. Semblably, of *Missello*, and the Priests called *Druids*.

If a man would consider the hidden corners of the world, and the inaccessible desarts that be in it, he might by infallible arguments conclude and resolute, that there be some trees that haue continued time out of mind, and liued infinitely. But to speak of their age only that are known (euen by the testimonie of ancient records, and those faithfully deliuered vnto vs) there are to be seen standing or growing at this day, about *Linternum* (a towne in Campaine) certain Oliue trees, that *Scipio Africanus* (the first of that name) planted long since with his owne hand. In the same place also there is a Myrtle tree, of a rare and admirable greatnesse; and vnder it, a caue or hole in the ground, wherein (by report) there lyeth a dragon that keeps the ghost and foule of the said *Scipio*. And at Rome, in the court-yard belonging to the chappell of goddesse *Diana Lucina*, there is yet to be seen a Lote tree standing before the said chappell, built in the yeare of the Anarchie, what time as Rome stood desolate of all magistrates, and that was 369 yeares after the foundation of the citie: but how much more auncient this tree is than the said temple, God knoweth: for elder it is without all question, considering that of the groue or tuft of trees there growing, which the Latines call *Lucus*, the said goddesse *Diana* tooke her name * *Lucina*. Now it is 450 yeares or thereabout, since that time, and so old it is doubtlesse. Another Lote tree there is and elder than that, but the age thereof is likewise vncertain: known it is by

* Gratia Lucina
the deities haue
this nomina
Eucius. Ouid.

A by the name *Capillata*, [i. haire:] so called, because the haire of the vestall Nuns heads is vsually thither brought, & there consecrated: and yet is there a third *Lotos* at Rome in the court-yard and cloister about the temple of *Vulcan*, which *Romulus* built for a perpetuall monument and memoriall of a victorie, and defraied the charges out of the tenths of the pillage and spoile that he wonne from his enemies; and this tree is at least full as old as the citie of Rome, if it bee true that *Massilius* writeth. The roots thereof, passing along the street where the Burgeoises vse to keep their residence, doe reach as farre as the stately market-place or Hall of *Casus*. There grew by it a Cypresse tree also of the same age, the which by an oversight and careless neglect, fell downe no longer since then the last yeare of *Nero* the Emperour. But why stand wee long here vpon? there is an Holme growing in the Vatican, elder than Rome it selfe, with a plate of brasse vpon it engrauen in Tuscan letters, containing an inscription or title: whereby it appeareth, that euen in those daies the said tree for antiquity, was worthy of peoples deuotion. Moreover, it is well knowne, that the *Tyburines* are more auncient than the Romans, and their citie *Tybur* founded many a yeare before Rome: and yet certain it is, that there be yet three Holmes there remaining aliue, elder than *Tyburus* himselfe, their first founder: vpon which trees (as the voice goeth) he obserued the flight of birds; and thereby tooke his auspices and warraht from the gods to build the said citie. And (by report) the sonne he was of *Amphiarauus*, who died at Thebes an hundred yeares before the Troiane warre. Writers there be who affirme, that both that Plane tree which groweth before the temple of *Apollo* at Delphos, was set by king *Agamemnon* with his hand: as also another in the second groue of *Caphys* in Arcadie. Furthermore, at this day there be trees nere vnto the freight of *Callipolis*, sometime called *Hellas pontus*, ouer against the citie of the *Ilions*, where old Troy stood, growing close vnto the tombe or sepulchre of *Protesilaus*, which euery sountene yeres so soon as they are shot vp so tall only as they may seeme to discouer and see the citie *Ilium*, immediatly begin to wither and fade, and afterwards spring againe and grow anew vnto that age and height aforesaid. Hard by the citie of *Ilium*, there be certain Oakes also (as folke say) neer vnto the tomb of *Ilius*, which were then planted or set of acornes, when Troy began to be called *Ilium*. It is reported moreover, that the Oliue tree remaines yet aliue at Argos, vnto which *Argus* tied lady *Io*, after she was transformed or turned into an Heifer: About *Heraclea* in Pontus, there be certaine altars erected to the honor of *Iupiter* intimated *Strabon*, ouer which there stand two Oakes, both set by the hands of *Hercules*. In the very same tract there is an haunten, ennobled and renowmed by the name of *Amicus* the K. of the *Bebrycians* there slaine. His tombe, from the very day of his sepulture, hath beene overshadowed with a Bay tree (planted there and then for that purpose) which the people of that country do call *The raging* or *mad Lawrell*, for pluck but a branch or twig thereof be it neuer so small, and carie it into a ship, all the mariners and passengers within, will fall a brawling, and neuer agree vntill it be cast out and throwne away out of the vessell, that was brought thither from the tree aforesaid. Of a certain region we haue before written, called *Aulocrene*, lying in the way between *Apamia* and *Phrygia*; & there the paissants of that country can shew you that very Plane tree, on which *Marsyas* the musician hung himselfe in a melancholly mood for that he was ouermatched in his owne cunning and professed skill, by *Apollo*: and surely like it is, that euen then he made choise of that tree for the bignes: ouer and besides, in the Isle *Delos*, there is a Date tree to be seen, which hath remained there euer since that the said god *Apollo* was borne and reared there. The wild Oliue tree at *Olympia* (whet of *Hercules* were the first coronet or guirland) is kept and tended still with great deuotion. The very same Oliue tree also (by folke saying) continueth this day at Athens, which sprung vp at the very time that *Minerva* and *Neptune* stroue together about giuing the name to the citie Athens. And thus much of long-liued trees.

Contrariwise, Pomgranat trees, Fig trees, and Apple trees, liue a very short time: & of these, the hastie kind or *Ienitings*, continue nothing so large as those that bear and ripen later: neither yet those that carie sweet fruit, last so wel as they that bring forth fower. The Pomgranat tree also with the more pleasant fruit, is shorter liued than the other. The like is to be said of Vines, and namely, such as bear greater burden of grapes & yeeld most wine. Howbeit *Gracinus* saith, That there haue been vine trees known to liue threescore yeares. It seems also, that trees which come vp in waterish and moist places, are not of any long continuance, but soone die. In deed Bay trees, Apple trees, and Pomgranat trees, do age & looke old quickly; howbeit they spring fresh,

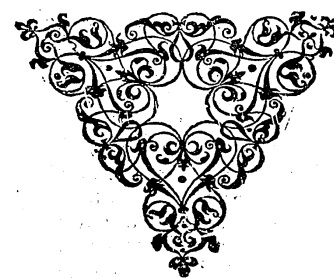
fresh again from the root. Well then, the Oliue trees hold out life and liue very long: for after the common opinion and agreement of all writers, they continue ordinarily 100 yeares. There is a little hil named Carne within the territory of Tusculum, not far from Rome city side, clad and beautified with a goodly groue and tuft of Beech trees, so euen and round in the head, as if they were curiously kept, cut, and shorn artificially with garden sheares: which groue was consecrated in old time to *Diana*, by the common consent of all Latium, which did their deuotions there. In it there was one especiall faire tree about the rest, which *Pasipha Crispus*, a man in our daies of great authoritie (as hauing been twice Consul in his time, & reputed an excellent Orator, who also afterward mounted to higher place of reputation by marrying *Agrippina* the Emperesse, by which match he became father in law to *Nero*, the Emperour) cast a fancie and extraordinary liking vnto: in so much as he was wont not only to take his repose and lie vnder it, to sprinkle and cast wine plentifully vpon it, but also to clip, embrace, and kisse it otherwhiles. Neere adjoining as a neighbour to the said groue, there is an Holme, which of it selfe alone is much renowned: it beareth in compasse about the butt therof 35 foot, and sends out ten monstrous big armes from the bodie, which may goe well enough for as many trees, and those euery one so great as it is wonderfull. Surely this one tree alone (a man would say) resembled a whole wood.

Moreouer, there is nothing more certaine than this, that Iule killeth trees. The like is to be said (in some sort) of the Misselto, although it is generally thought, that the harme thereby is not so soon seen. And this you must thinke, that this Misselto is not to be taken for the fruit of a tree, and therefore as great a wonder it is in nature, as any other for some things there be; that not willing to grow out of the earth, engender in trees, & hauing no proper place of their own habitation to seat themselves in, sojourn as it were & make their abode with others, and of this nature is the Misselto. Also, in Syria there is a certain hearbe named **Cadytas*, which windeth about, not trees onely, but also very bushes and thornes: likewise, all about the pleasant vale Tempe in Thessalie, you shall haue a kind of Ferne called *Polypodie*, to doe the same also, the Pulse named *Dolychos*, which is Fasels or Kidney beanes, and the wild running-laced Thyme, *Serpillum*. Semblably, that which the Greeks call *Phaunos*: the very same, that after a man hath cut and pruned the wild Oliue, engendreth thereupon. The like is to be said of *Hippopheston* which groweth vpon the Fullers thorne or thysle: it beareth certaine little heads and hollow knobs with nothing in them, small leaues, and a white root; the juice whereof is singular good to euacuate and purge the bodie, for the diuersion of ill humors, in the falling sicknesse. But to return againe to Misselto, there be three kinds thereof. For that which groweth on the Firre and Larch tree, is called *Stelis* in Euboea, and *Hyphear* in Arcadia. And as for that which properly is Misselto indeed, most men are of opinion, that it groweth fast to the common Oke, the wild Robur, the Holme, wild Plumtree, and the Terebinth, and not lightly on any other trees. Howbeit, in greatest plenty it is seen vpon the Oke, and that is named *Dryos Hyphear*. A difference there is in the *Hyphear* and Misselto, on what tree soeuer they are found (except the Holm and common Oke) in regard of the sauer, which is strong and stinking in the one more than the other. The leafe of them both hath no pleasant smel, and in the Misselto it is bitter, clammy, and viscous besides. Of the two, *Hyphear* yet is the better to feed sheep and such cattell fat: only at the first it purgeth yll humors, and makes them to scoure apace, but afterwards it fatteneth them; I mean such as were able to bear the said purgation. But in case any of them were deeply tacked and infected with the rot, or other inward consuming disease, they can neuer endure the taking of the said *Hyphear*, but they die vpon it. The only fit time for this kind of curing them, by the way of purging, is in Summer, and that for 40 daies space together. There is moreouer, by mens saying, another difference in Misselto: for that which groweth vpon trees, shedding their leaues in winter, loseth also his owne leaues; but contrariwise, it continueth alwaies green vpon such trees as hold their leaues all the yeare long. Moreouer, let or sow this Misselto what way soeuer you will, it will neuer take and grow: it comes onely by the mewting of birds, especially of the Stockedoue or Quoit, and the Blackbird, which feed thereupon, and let it passe thorough their body. And this is the nature of it, vnlesse it bee mortified, altered and digested in the stomacke and belly of birds, it will neuer grow. It exceedeth not at any time a cubit in heighth, notwithstanding it be alwaies Greene and full of branches. The male beareth a certaine graine or berry: the female is barren and fruitlesse. But sometimes neither the one nor the other beareth at all.

Now

A Now as touching Birdlime, it is made of the berries of Misseltoe, gathered in haruest time before they are ripe; for if they should tarry stil to take showres of rain, wel might they thrue and increase in bignesse, but their strength and vertue would be gon clean, for euer making any such giew or birdlime afore said. Being so gathered, as is before said, they must be laid abroad a drying, and when they be once dry, they are braied or stamped, and so put in water to steepe, and let to putrifie for the space of 12 daies or thereabout. This one thing yet in the whole world is the better for putrefaction, and serueth to good purpose. When this is done, the said berries thus putrified and corrupt, are beaten or pumed once again with mallets, in running water; by which means when they are husked and turned out of their skins, the fleshy substance within, becommeth glutinous, and will stick too, in manner of giew. This is the way to make birdlime for to catch poore birds by their wings, entangled therewith; which foulers vse to temper and incorporate with the oile of Walnuts, when they list to set limetwigs to take foule.

And forasmuch as we are entred into a discourse as touching Misselto, I cannot ouerpasse one strange thing thereof vsed in France: The Druidæ (for so they call their Diuinors, Wife-men, & the state of their Clergy) esteeme nothing more sacred in the world than Misselto, and the tree wherupon it breeds, so it be on Oke. Now this you must take by the way, These priests or Clergy men chose of purpose such groues for their diuine seruice, as stood only vpon Oks; nay, they solemnise no sacrifice, nor perform any sacred ceremonies without branches & leaues thereof, so as they may seem well enough to be named thereupon Dryidæ in Greeke, which significeth as much as the Oke priests. Certes, to say a truth, whatsoeuer they find growing vpon that tree ouer and besides the own fruit, be it Misselto or any thing else, they esteeme it as a gift sent from heauen, and a sure signe by which that very god whom they serue giueth them to vnderstand, that he hath chosen that peculiar tree. And no marvel, for in very deed Misselto is passing geafon and hard to be found vpon the oke; but when they meet with it, they gather it very devoutly and with many ceremonies: for first and formost, they obserue principally, that the Moon be iust six daies old (for vpon that day they begin their months and new yeares, yea and their seueral ages, which haue their revolutions euery thirty yerres) because she is thought then to be of great power and force sufficient, and is not yet come to her halfe light and the end of her first quarter. They call it in their language All-Heale, (for they haue an opinion of it, that it cureth all maladies whatsoeuer) and when they are about to gather it, after they haue well & duly prepared their sacrifices and festiual cheare vnder the said tree, they bring thither two yong bullocks milk white, such as neuer drew in yoke at plough or wain, and whose heads were then and not before bound by the horn: which done, the priest araied in a surpleffe or white vesture, climbeth vp into the tree, and with a golden hooke or bill curteth it off, and they beneath receiue it in a white soldiers cassock or coat of armes: then fall they to kil the beasts afore said for sacrifice, mumbling many oraions & praying deuoutly: that it would please God to bestow this gift of his to the good and benefit of all those to whom he had vouchsafed to giue it. Now this perswasion they haue of Misselto thus gathered, That what liuing creatures soeuer (otherwife barren) do drink of it, will presently become fruitfull thereupon: also, that it is a soveraign countrepoyson or singular remedie against all vermine. So vain and superstitious are many nations in the world, and oftentimes in such friuolous and foolish things as these.





THE SEVENTEENTH BOOKE OF THE HISTORIE OF NATVRE,

WRITTEN BY C. PLINIUS

SECVNDVS.

CHAP. I.

¶ The wonderfull prices of some Trees.



As touching the nature of all those trees which of their owne accord doe grow, as well vpon the main land as the sea coast, we haue already treated sufficiently. It remaineth now to discourse of those which (to speake more properly) are made rather and forced by art and wit of man, than otherwise come by nature and of themselves. But before I enter into this treatise, I cannot chuse but maruel how it is come to passe, That those trees which for necessity & need we hauing taken from the wilde and brute beasts, and possessed in common with them (considering that men maintaine fight and scramble with them for the fruits that fall, yea and otherwhiles with the fowles of the aire, about those which hang vpon the tree) should grow to so excessiue a price, as to be esteemed among the principall delights of this world? And that this is so, appeareth by that most notable example (in mine opinion) of *L. Crassus* and *Cn. Domitius Enobarbus*. This *L. Crassus* (a right renowned Orator of Rome as any one of his time) had a stately and sumptuous dwelling vpon mount Palatine: howbeit that house of *Q. Catulus* (who defeated in battell the Cimbrians, together with *C. Marius*) went beyond it a faire deale in magnificence, and stood likewise within the pourprise of the same mount. But the goodliest and fairest Pallace knowne in that age, was that of *C. Aquilius* a Gentleman or Knight of Rome, scituate vpon the hill of Ofiers, called Viminalis: in regard whereof there went a greater name of him, than for all the skill he had in the Ciuill Law, which was his profession. Yet of all those three, *Crassus* onely was challenged and reproched for that foresaid house of his. And in this manner is the storie deliuered: *Crassus* and *Domitius* (great personages both, and descended from most noble Houses in Rome) after they had beene Consuls, happened also to be chosen Censors together: and this fell out to be in the six hundred sixty two yeare after the foundation of the city: but during this Magistracie of theirs there passed many a foule day and bitter fit betweene them; so dissonant were their natures, and their conditions so farre vnlike. Now it fortuneth vpon a time, that *Cn. Domitius* (as hee was hot and hasty man by nature, and carried an inward hatred besides in his heart, which soone is kindled and set on fire, yea and most insatiable, vpon emulation and enuy betweene Concurrents, such as they two were) reprooued *Crassus* verie sharply for his excessiue in expence, and namely, That any Censor of Rome should dwell in so stately and sumptuous a Pallace as he did; and euer and anon made offer to buy the House, and pay him downe-right for it an * hundred Millions of Sesterces: whereat *Crassus* (being a man quicke of spirit, and of a prompt and present wit, finely conceited withall, and not to seeke for a ready answer) tooke him at his word, and accepted of the offer; reseruing onely six trees that grew about his house. Tush (quoth *Domitius*, replying againe) take those Trees away, and take all; if they be gone, I will none of the house though I might haue it for a single denier. Then *Crassus* hauing gotten the vantage and start of him, rejoyned and came vpon him thus: Tell me now I pray you good *Domitius*, whether of vs twaine giueth a scandalous example to the world? Whether am I my selfe (I say) offenseful, and deserue to be taxed and noted by mine own Censorship, who can be contented to liue quietly and louingly among my neighbours in mine owne house, and that house which came to me by way of inheritance from my father;

* Millies Sester-
tium. An in-
credible price
for a dwelling
house: and
therefore as
Budeus thin-
keth, this place
must be cor-
rected, by con-
ference with
Val. Max. who
saieth (millies)
hath (six ag-
es) which a-
mounts little
more than to
the 20 part
of the other
summe.

A father, or you rather, that for six trees bid 100 millions of Sesterces? Now, if a man be desirous to know, what these trees might be? truly they were no other but six Lote trees, very faire and beautifull indeed, but there was nothing in them commendable, save only their spreading and casting a goodly shade. And verily, *Cacina Largus*, a Nobleman and principal citizen of Rome, vsed many a time and often (I remember well) to shew me when I was a yong man, those trees about his house. And since our speech hath bin of such trees as liue very long, these I wrote wel, continued for the space of 180 yeares after *Crassus* death, to the great fire that *Nero* caused to be made for to burne Rome; fresh and green they were with good keeping, and looked yong still, like to haue liued many a faire day more, had not that prince hastened the vntimely death euen of trees also [as well as of citizens.] Now lest any man should think, that all the sumptuositie of *Crassus* consisted only in those trees, and that the furniture otherwise of his house was but mean and simple, and could minister vnto *Domitius* no matter of such contesting and reproofe, disposed as he was to quarrel and find fault: know he thus much, That the said *Crassus* had before that time set vp in the open hall of that house, foure goodly pillars of Hymettian marble, which in the yere of his Edileship were brought abroad to rich and beautifie the Theatre, the Stage and Shew-place of the solempne plaies by him set out: for as yet there had not bin in publicke place at Rome any marble pillars seene: lo how lately is come vp this excessiue expence in rich & glorious building, so common in these daies. See (I say) how in those times, faire trees beautified pallaces more than any thing els; inso much, as *Domitius* for the want of six trees only, would not stand to the price that himselfe first made, no not to buy his very enemy out of house and home with it: but no maruel if trees were accounted of so highly, seeing that our ancestors in old time thought not scorn to take otherwhiles their surnames from them. Thus that braue and valiant souldier came to be named *Fronditius*, who (maugre the beard of *Anniball*) swum ouer the river Vulturinus, with a chaplet of green leaues (answerable to his name) set vpon his head, and performed many feats of arms and worthie exploits against him. Thus they of the noble *Licinian* family had for their addition *Stolons* (i. the vnprofitable water-shoots that put forth from the root or tree it selfe, and neuer proue or come to any good.) And why so? For that one of the said house deuised the means to clesse trees & vines of such superfluous twigs (the practise & feat of cutting which a way, is called *Pampinatio*) and therupon was one *Licinius* first surnamed *Stolo*. Moreover, our predecessors in ancient time made good statutes and ordinances for the maintenance of trees: and expressly provided it was by the laws of the 12 Tables at Rome, in these words, That whosoever made wilfull waste, and cut downe any trees growing in another mans ground, should be peined in the court for a trespassse done: & forfeit for euery such tree, 25 pound of brasie money. But what should we thinke of this? Did these law-makers trow ye, suppose or imagine that other wilde trees would euer haue growne to that high reckoning aboue named, and which now they are come vnto, who valued fruitfull trees at no greater price, and set the penalty for the trespassse, so low? But neuer maruell we any more hereat, considering to what a proportion Apple-trees, and such like are risen vnto. For there be many of them here about the city of Rome. in the villages neere adjoining, which are set for a yearely rent of 2000 Sesterces; and one of them yeeldeth more profit and reuenue by the yere to the owner, than a pretty ferm in times past of good domaine, to the land-lord. Hereupon came the inuention of grafting trees: for this purpose haue we such bastard fruits intermingled one with another, of sundry kindes; as if Apples and other fruits were not for poore men to eat, but grew only for the rich. Hence forward now therefore will we shew the right, perfect, and absolute manner how to order and cherish them, that it may appeare by what means especially, such annuall commodity can be made of them, as is before said. For the better performance of which discourse, I meane to leaue the common and ordinary way; neither will I handle the vsuall and vulgar manner of that point in husbandry, wherein euery man is perfect, and whereof no man maketh question: but deliuer such matters onely, as be vncertaine and doubtfull, whereby oftentimes folke are deceiued and beguiled. For to break my head or busie my brains in needlesse trifles, and therein to affect a kinde of curiositie, was neuer my manner yet, nor is it any part of my meaning and intention now. But before I doe enter into particulars, my purpose is to treat in generalitie of this matter, and touch briefly the consideration of heauen and earth both, so farre forth as may concerne in common all kindes of trees whosoever.

CHAP.

CHAP. II.

¶ Of the nature of the Skie respectiue vnto trees: and what quarter thereof they should regard.

Trees generally do like best that stand to the Northeast wind: for it nourisheth them well, causeth them to spread thick and grow euery way in length and breadth, and withall maketh the timber more fast and strong. But in this rule most men doe erre, and be much deceiued; for in vnderpropping vines, the forkes would not be set opposite against that wind to hinder the blast thereof; a point that is to be obserued in regard of the North wind only. Moreouer we find by experience, that if trees haue a kindly winter and cold season in their due time, their wood will be more firme, and so likewise will they bud and shoot out best: otherwise, if the warm Southerne winds blow vpon them much, ye shall haue the trees proue soft and feeble, and their blossoms come to nothing, blooming as they do before time: for if it chance that presently after their floures be fully out, and ready to shed, there fall any store of raine, the fruit is quite gone for that yeare. And as for Almond trees and Peare-trees, if it be but close and cloudy weather only, without any raine, or the wind stand South when they floure, sure they be to lose their fruit. Certes, a glut of rain in May, at what time as the Brood-hen star called Virgilie doth arise, is exceeding hurtfull to Vines and Oliue-trees: for then is the very season of their knitting or conception. Then be the foure decretoric or criticall daies, that giue the doome of Oliue trees, either to good or bad: this is the Southerly point of filthy, foule, and giowmie weather, whereof wee haue spoken before. Moreouer, all manner of graine feeleth the inconuenience of Southern wind at the time of their ripening. Well may come make haft and ripen sooner, but it shal neuer haue the kind maturity and perfection as it ought. As for the cold pinching black frosts and Northern winds, which blow out of season, come they early or come they late, they be hurtfull all. But if the wind stand Northeast in winter, there is nothing so good generally for all fruits of the earth. And verily, a good shower now & then during that time, wil do no harm; and that men wish for rain then, the reason is euident: for why? trees with bearing of fruit, are drawne dry and haue lost their naturall moisture, with shedding their leaues they be poore and feeble, so that it is kind for them to be hungry then, and to haue a greedy appetite to new food, which is raine. Now if the winter be open and warm withal, that so soone as the trees haue don bearing, they rest not between, but conceiue again presently vpon it (that is to say, bud & spurt anew, yea, and fall afresh to blossome, whereby they haue another euacuation that way also, to spend their sap and radicall moisture) we find by experience, that there is nothing in the world so bad for them. Nay, if many such yeres come together, immediatly one after another, the very trees themselves will die; for who can looke for better, when they are thus pined and famished? He then* whofoeuer he was that said, Husbandmen were to wish for faire winters: surely he was no friend therein to trees, nor neuer praied for them: neither are wet Mid-summer good for Vines. But in truth, That winter dust should cause plentiful haruest, was a word spoken in a bravery, and proceeding from a pregnant wit and jolly spirit: for otherwise, who knoweth not, that euery man (wishing well to trees and corn indifferently) praieeth, that snow might lie long vpon the ground? The reason is, for that not only it keepeth in & encloueth the vitall breath & foule (if I may so say) of the earth, ready to exhale out and vanish away, yea, and driueth it back again into the blade and root of corn, redoubling therby the force and vigor thereof; but also because it both yeeldeth moisture and liquor thereunto gently by little and little, and the same withall fine, pure, and passing light: considering, that snow is nothing els but the some or froth of rain-water from heauen. This humor therefore, not falling forcibly all at once to drown the root, ne yet washing away the earth from it (but distilling drop-meale a little at once, in that proportion and measure as thirst requireth and calleth for it) nourisheth all things, as from a teat or pap; nourisheth (I say) and neither drencheth nor ouerfloweth them. The earth also for her part, by this means wel foked, swelleft and houeth as it were with a leauen, and lieth thereby more light and mellow: thus being full of juice and moisture it selfe, & not barren, but well replenisht with seeds sown, and plants suckled, thus continually in her womb, when the open time of the spring is once come to discharge her, she sheweth her selfe fresh and gay, and willingly entertaineth the warme weather of that season.

By

A By this meanes especially, we see how corne liketh well vpon the ground, and thriue thapace euery where, vnlesse it be in climates where the aire is alwaies hot, as in Egypt. For continuance and ordinarie custome alone effecteth the same there, which the season of the time, & moderate temperature of the aire elswhere. And in one word, be the place whatsoeuer, passing good it is to keep away the thing that is hurtfull. For in the most parts of the world it happeneth, That when either corn is winter-proud, or other plants put forth and bud too early, by reason of the mild and warme aire; if there follow any cold weather vpon it, all is nipped, blasted, and burnt away. Which is the cause, that late winters do harme vnto the wild trees also in the forest. The more paine and sorrow likewise such trees abide, by reason of their owne thicke branches shading one another, and not easily admitting the warme Sun; and destitute they are besides of mans helping hand to cure them: for growing as they do in wild and desert forests, impossible it is to lap and wrap them about with wreaths and thumb-ropes of straw, and so to cherish and defend them when they be yong and tender. Wel then, to conclude this matter, Winter raine principally is seasonable and good for all plants: and next to it the dewes and showers that fall immediatly before their sprouting time: a third sort also there be of showers that come when fruits hang on the tree, and are in their growth, yet not too soon, namely, before they bee strong and able to abide some hardnesse.

As touching trees which be late-ward and keep their fruit long ere they ripen, such also as require store of nourishment and more food still, as namely, the Vine, the Oliue, & Pomgranat trees; it is good for them to be watered with raine in the later end of the yeare. And to say a truth, euery kind of tree requireth a seuerall rain by it selfe, in due season, for that some ripen their fruit at one time, and some at another: so as a man shall see ordinarily the selfe same showers, to hurt one sort, and to help another; yea, and that diuers effect is to be seen in trees & fruits of the same kind, as for example, in Pyrries: for the late-ward of them call for raine at one time, and the hasty or forward at another, and yet indifferently all doe require alike the seasonable showers of winter, as also those before budding time. In which regard, the winds Northeast are better than the Southern, and such winters be most kindly. Semblably, by the same reason the Mediterranean or mid-land parts of any country are for this purpose preferred before the maritime or sea-coasts (as being for most part colder) the high & hilly regions before the plaines and vallies: and last of all, the night rains are held to be more profitable than those that fall by day time: for lands new sowne, and any yong plants, inioy more benefit by such shoures in the night, for that the Sun commeth not so presently vpon them againe to dry and drink vp all the moisture.

Hereunto ought to be annexed the consideration of Vine-yards, hort-yards, and Groues, as touching their situation, and namely, what part of the heauen they should regard. Virgil condemned altogether the planting of any trees, respectiue to the West: some haue chosen that quarter before the East. And this haue I obserued, that in most mens opinion, the South is best. But if I should speak what is mine own conceit indeed, there can no generall and infallible rule be giuen concerning this point, for to hold alwaies. All our skil and art herein must be directed by the nature of the soile, the disposition of the climat and temperature of the aire. In Africke although it be nothing profitable for Vine-yards to be planted so as they look into the South, yet kind it is & wholesome for the Vine-planter and husbandman, by reason that all Africke lieth vnder the Meridionall or South climat. And therefore he that shall set vines there, either into the West or North (howsoeuer Virgil alloweth not of the West) shall make an excellent medley between the temperature of that aire and the nature of soile together. As for the North no man seemeth to make any doubt or question, but that vines so planted, wil proue right well. And verily there are not found any vines to prosper better, or to beare more fruit in all Italy than that tract which lieth on this side, and vnder the Alpes: and there for the most part the Vineyards are so planted.

Moreouer in this case the winds would be much considered; for in Languedoc or the prouince of Narbone, in Liguria and part of Tuscane, they are reputed vnskilfull husbandmen that plant any vine-yards directly vpon the Northwest wind: but it is counted contrariwise a special point of providence and good husbandry, to cast it so, as the said wind may flanke it on the side. For this is the wind, which in those quarters qualifies and tempereth the excessive heat of the summer: howbeit, many times, so violent and blustering he is, that hee beareth downe before him the

the rooffe of many a house, and carrieth it cleane away.

CHAP. III.

¶ *The societie of the skie and aire with the earth, respectiue to trees.*

SOME men do force the skie for to be obedient & conformable to the earth: as namely, when planting in dry grounds, they haue regard to the East and North: and contrariwise, when in moist places they respect the South. Moreouer, it falleth out, that they be driuen otherwhyles to follow the nature of the very Vines, and thereby to be ruled: wherupon, in cold ground they plant such as be of the hastie kind, and soone ripen their grapes; to the end that they may come to their maturity and perfection, before cold weather comes. As for such Vines and trees bearing fruit, as canot abide dews, those they set in to the East, that the Sun may soon dispatch and consume the said dew: but looke what trees do loue dewes, and like well therewith, those they will be sure to plant against the West, or at leastwise toward the North, to the end they may inioy the full benefit thereof. All others againe (grounding in manner vpon natural reason only) haue giuen counsell to set as well Vines as Trees, into the Northeast. And *Democritus* verily is of this mind, that such fruits will bee more pleasant and odoriferous.

CHAP. IIII.

¶ *The quality of sundrie regions.*

AS touching the proper fear of the Northeast wind, and of all other winds, we haue spoken already in the second booke: and our purpose is in the next following, to treat of the rising and falling of signes and notable stars, of other Astronomical points also concerning heauen. Now in the mean time for this present, it is sufficient, that in the former rule of the North wind, we seem to rest and resolute vpon the apparent and euident argument of the wholesome and healthfull climate of the heauen: forasmuch as we see, that euermore all such trees as stand into the South, soonest shed their leaues: the same reason also is to be giuen of those that grow vpon the sea coasts: and albeit in some places the winds blowing from thence, and the very aire of the sea be hurtfull, yet in most parts the same are good and profitable. Certaine plants and trees there are, which take pleasure to be remot from the sea, and ioy to haue the sight of it only a farre off: set them neerer to the vapors and exhalations ascending from thence, they will take harm and mislike therewith. The like is to be said of great riuers, lakes, and standing pooles. As for those which we haue spoken of, they either burn their fruit with such mists, or refresh and coole such as be hot with their shade, yea, & take joy and prosper in the frost and cold. And therefore to conclude this point, the surest way is, to beleue & trust vpon experience: thus much for this present, concerning the heauen: our next discourse will be of the Earth and Soile, the consideration whereof is no lesse difficult to be handled than the other.

First and formost, all grounds are not alike good for trees and most kinds of corne. For neither the black mould (such as Campain standeth vpon much) as in all places best for Vines; or that which fumeth and sendeth vp small and thin mists: neither is the red veine of earth any better, howsoeuer there be many that commend it. The white earth or chalkie marle, the clay also within the territory of Alba and Pompeij, for a vineyard, are generally preferred before all other countries (although they be exceeding fat, which in that case is otherwise vsually reiect- ed.) On the other side, the white sand about * Ticinum: likewise, the blacke mould or grit, in many places, as also the red sandy ground, although it be wel mingled & tempered with fat earth are all of them nothing to the purpose for increase & fruitfulness. And herein must men take heed, because oftentimes their iudgement may faile when it goeth but by the eies: for wee must not straight waies conclude, that the ground is rich & battle, wheron we see goodly faire & tall trees to grow, vnlesse it be for those trees only: for where shal we meet with any, higher than the Fir: & is there a tree again that possibly can liue where it doth? No more is rank grasse & plentifull forrage a true token alwaies of a good ground: for there is no better pasture nor grasing to be found than in Almaine; and yet dig but vp the greene sould and the thinnest coat of turfe that may be, ye shal presently come to barren sand vnder it: ne yet is it by & by a moist ground, that hath vpon it deepe grasse and hearbes shooting vp in height: no more verily, than a fat and

A and rich soile is knowne by sticking to one fingers, as appeareth plainly in all sorts of clay. And verily, no earth doth fill vp the trenches euen againe, out of which it was cast, that thereby a man might find out whether the ground be sad, or hollow: and generally all sorts thereof will cause yron to rust that shal be put into it. Moreouer, there is no weighing of earth in ballance, to know by that means which is lighter or heauier: for who could possibly euer set down the iust weight that earth should haue? Again, the ground that is cast vp into banks by the overflow of great riuers is not alwaies commendable: seeing that, some plants there be that decay, if they be set in water. And say that some such bank were ground good enough, yet it continueth not so long, vnlesse it be for Willows and oisiers only. But if you would know a rich ground indeed, one of the best arguments and signes therof is this, when you see it to bring forth a thick & strong haulme or straw, such as vsually groweth in that noble territorie Laborine within Campaine; which is of that bignesse, that the people of the country vse it for fewell in stead of wood. Now, this ground, so good as it is, where & whensoeuer we haue found it, is hard enough to be tilled, and requireth great labour and husbandry, putting the poore husbandman to more paines in manner with that goodnesse of it, than possibly he could haue with any defects and imperfections thereof. For euen the hot earth, called by the name of Carbunculus, which vseth to burn the corne sown therupon, may be helped & remedied (as it is thought) by setting it with plants of poore & hungry vines. The rough grauell stone which naturally will crumble as grit, many writers there bee that allow and commend, for vines. As for *Virgil*, he findeth no fault with the ground that beareth fern and brake, for a Vineyard. The earth that is brackish, and standeth much vpon saltpetre, is thought to be more sound for many plants than others, and in regard of vermine that vse to breed therein, much safer also. Neither do high banks and hills remaine vntilled and naked for want of good husbandry, if so be a man haue the cast of it, to eare & breake them vp skilfully. As for the plaines, they are not all of them exposed to the Sun or subiect to the wind more than need requireth. And to speake of frosts, mists and fogs, there be Vines (as we haue said already) which are nourished and fed with them. And to conclude, hereby we may see, that in euery thing there is some one deep secret or other, wherein it behoueth each man to employ his spirit and set his mind for to search them thoroughly and find them out: what shall we say then to this, That oftentimes those things which haue bin approoued by long experience and many obseruations, become otherwise, and change their vsuall manner? In Thessalie about Larissa, the whole region, by reason of a lake that was let out and drained drie, prooued much colder: and the Oliues which there grew before, left bearing and died all, vpon it. In like sort, neer vnto Enos, the Vines were all scorched and burnt, by occasion, that the course of the riuer Ebrus was brought neere vnto them, an accident that beforetime neuer befell vnto them. Semblably, about the citie Philippi, the whole country being made drie by sluices and trenches artificiall; altered withall the whole disposition of the aire and weather, and changed the very habite of the heauen aboue their heads. But in the territory of Syracusa, the forraigne Coloners that thither came to inhabit and practise husbandry, by ridding the ground from all the stones, marred all the corn in the country; so mirie and durty it was by that meanes, vntil such time as they were driuen to lay the stones againe where they had them. In Syria, the husbandmen goe lightly ouer with their plough, & take no deep stich in making their furrowes, for feare of the stony rocke lying ebbē vnder the good ground, which in Summer season will burne all their graine and seed sowne there. Now, there be certain parts of the world, where a man shall see one and the same effect to proceed both of extreame heat, and also of excessiue cold. Thracia is exceeding cold, and thereby plentifull in corne. Africke and Egypt be as hot, and yet come not after it for fertilitie in that kind. In Chalcia, an Island belonging to the Rhodians, there is one place aboue the rest so fruitful, that the Barly which was sowed in the due time & season of the yere, they mow once, and presently put it into the ground againe, which will be ready to be cut downe the second time, with other corne in haruest. In the Venafrane tract within the realme of Naples, the grauellie ground is thought meetest for Oliue trees, & therein they bear most plentifully: contrariwise, about Boetica in Spaine, the fattest soile is best for that purpose. The excellent grape that makes the good Punicke wine, ripeneth soon vpon the very rockes: but the Cæcube Vines stand soaked & drenched (as it were) in the marsh low grounds of Pomptinum. See what a difference and diuersitie there is in causes, to make this variety in sundry plots of ground! *Cæsar Vopiscus* being conuenced before the Censors, and there pleading his cause, affirmed

med openly, that the plaines of Rofea were the very fat of Italy, and resembled the kell or leafe of a fed and franked swine: wherein (quoth he) if a man left forks or props to day, they will bee ouergrowne and covered with grasse by to morrow. But surely, this ground is good for nothing but pasture. Yet notwithstanding, Nature would haue vs still to learne and grow skilfull euery day more than other: and for that intent she hath laid open the defects and imperfections of the ground, euen there, whereas the commodities thereof be neither so certain, nor so well knowne. And therefore let vs in the first place speake of those faults for which the earth is blamed.

CHAP. V.

¶ Sundry sorts of earth.

If a man would know which is a lean, hungry, & bitter ground, there is no better experiment and prooue thereof, than by the blackish, misliking, and vnkind herbs growing thereupon like as, when they come vp scorched and burnt, they shew a cold soile: also, when they seem ill-fauored and vnpleasant to the eie, the earth no doubt is soked and drowned in wet. As for red sandy ground and clay, you need go no farther than to your owne eie-sight. And such soiles as these be, is of all other, hardest to be wrought and tilled: they so clog and load both the harrow teeth and the plow-shares, with huge and heauie clods. Howbeit, the ground that is thus churlish to be eared and husbanded, is not alwaies bad and naught for increase. But it fareth cleane contrary with the pale and wan ashie earth, as also with the white sandy soile: for the barren ground is soon found by a thicke and callous crust that it hath, euen at the first dent of culter or stroke of mattocke.

Cato setteth down briefly, as his maner is, all the defects and faults of ground in these words: *Take heed (quoth he) of a rotten ground, and see that you stir it neither with cart nor touch it with beast.* What should we think was his meaning by this term of his, that he should feare rotten ground so much, as to forbid in a manner to tread and goe thereupon? Let vs call to mind the rottenness that is in wood: and thereby shall we find those faults that he abhorreth and detesteth so much in the earth. In good faith, by rotten earth hee vnderstandeth dry, spongeous, and full of holes, rugged, hoary, eaten, old, and hollow. So as in that one significant word, (*Cariofa*) hee said more than could be exprest possibly by any multiplicity of language whatsoeuer: for if a man would rip vp to the quicke the imperfections that are in grounds, he should find, that some pieces thereof be of it that may be termed truly old and ouerworne, not for any age (for who can say properly, that earth is subiect to old age) but by reason of their naturall defects: in regard whereof, a ground may be weake, feeble, barren, and no longer good for to bring forth any thing. The same Cato iudgeth, That ground to be principall which lieth at the foot of an hill, and runneth forth in manner of a plaine, into the South, which is the very scituation of all Italy: and by a blackish and swart earth, which he calleth [*Pulla*] he meaneth a gentle, tender, and mellow soile. And this we will determine to be the best simply both for worke or tillage, and also for gaine and increase: now let vs (if ye please) stand a little vpon this word *Tenera* [i. Tender] which he setteth in this fence: you shall find a marvellous signification thereof: and that he implieth thereby, as much as your heart can wish to be in a ground. That is it, which is so temperat in fertility, that is it which to be wrought is so gentle, soft, pliable, and mellow; neither wet, nor yet dry and thirsty. Now doth this ground shine againe after the plough-share, resembling that veine of earth, which Homer, the very fountaine and spring of all good wits, reported to haue bin engrauen by a *god, in the armour (of *Achilles*:) adding moreouer, that the said earth looked black withall: wherein hee obserued a wonderfull piece of workmanship, notwithstanding it was wrought in gold. This is that ground, I say, which beeing new broken and turned vp with the plough, the shrewd and busie birds seeke after, and goe vnder the plough-share for it: this is it, that the very Rauens follow the plough-man hard at heeles for, yea, and are readie for greedinesse to pecke and job vnder his very feet. And here, in this place I cannot chuse but relate the opinion that is currant among our roisorous and delicate gallants: which some other thing also making for our purpose, in the discourse of this argument which wee haue in hand. Certes *Cicero*, a man reputed (as he was no lesse indeed) for a second light of all good learning and literature. Better are esteemed (quoth hee) the sweet compositions and ointments which tast of earth, than of saffron: where note by the way, that this great Clarke chose to vse the word

of

A of tast rather than of smell, in such odoriferous perfumes and mixtures. Well, to speake at a word, surely that ground is best of all other, which hath an aromaticall smell and tast with it. Now if we list moreouer to be better instructed, what kind of fauour and odour that should be, which we would so gladly find in the earth, we may oftentimes meet with that sent, euen when she is not stirred with the plough, but lieth still and quiet, namely, a little before the sun setting: especially where a rainbow seemeth to settle & pitch her tips in the Horizon: also, when after some long and continuall drouth, it beginneth to rain; for then being wet and drenched therewith, the earth will send vp a vapor and exhalation (conceined from the Sun) so heauenly and diuine, as no perfume (how pleasant soeuer it be) is comparable vnto it. This smell there must be in it when you ere it vp with the plough: which if a man find once, he may be assured, it is a right good ground; for this rule neuer faileth: so as (to say a truth) it is the very smell and nothing els, that will iudge best of the earth: and such commonly are new broken grounds, where old woods were lately stocked vp: for all men by a generall consent, do commend such for excellent. Moreouer, the same ground for bearing is held to be far better, whensoeuer it hath rested between, and either lieth fallow, or fallow; whereas for vineyards it is cleane contrary: and therefore the more care and diligence is to be employed in chusing such ground, least wee approoue and verifie their opinion, who say, That the soile of all Italie is alreadie out of heart and weary with bearing fruit. This is certaine, that both there and elsewhere, the constitution of the aire and weather, both giueth and taketh away the opportunitee of good husbandrie, that a man cannot otherwhiles do what he would: for some kind of grounds there is so fat and ready to resolue into mire and dirt, that it is impossible to plough them and make good worke, after a shower of raine. Contrariwise, in Byzacium a territory of Africke, it is far otherwise: for there is not a better and more fruitfull piece of ground lieth without dore than it is, yeelding ordinarily 150 fold; let the season be dry, the strongest teeme of oxen that is, cannot plough it: fall there once a good ground shower, one poore asse, with the help of a silly old woman drawing the plough-share at another side, will be able to go round away with it, as I my selfe haue seen many a time and often. And whereas some great husbands there be, that teach vs to enrich and mend one ground with another, to wit, by spreading fat earth vpon a lean and hungry soile, & likewise by casting drie, light, and thirstie mould, vpon that which is moist and ouer-fat, it is a meere follie and wastfull expence both of time and trauaile: for what fruit can he euer looke to reape from such a mingle mangle of ground?

CHAP. VI.

¶ Of the earth which Britaine and France loue so well.

The Brittaines and Frenchmen haue deuised another meanes to manure their ground, by a kind of lime-stone or clay, which they call Marga [*i. Marle*.] And verily they haue a great opinion of the same, that it mightily enricheth it & maketh it more plentiful. This marle is a certaine fat of the ground, much like vnto the glandulous kernels growing in the bodies of beasts; and it is thickened in manner of marrow or the kernell of fat about it.

CHAP. VII.

¶ The discourse of these matters continued according to the Greekes.

The Greekes also haue not ouerpassed this in silence: for what is it that they haue not meddled withall? The white clay or earth wherewith they vse to marle their grounds in the territorie of Megara, those onely I meane which are moist and cold, they call Leucargilla. These marles (all the kind of them) do greatly enrich France and Britaine both, and therefore it would not be amisse to speake of them more exactly. In old time there were two sorts thereof, and no more: but of late daies (as mens wits are inuentiue euery day of one thing or other) they haue begun to find out more kindes, and to vse the same: for there are now diuers marles, the white, the red, the Columbine, the clay soile, the stony, and the sandy: and all these are but two in nature, to wit, either hard and churlish, or else gentle and fat. The triall of both is knowne by the handling, and a twofold vse they yeeld, either to beare corne onely, or els for grasse and pasture. The stonie or grauelly soile is good only for to nourish corne; which if it be white withall,

X x

withall, and the pit thereof found among springs or fountains, it wil cause the ground to be infinite fruitfull, but it is rough in handling, and if it be laid too thick vpon the lands or leyes, it wil burn the very ground. The next to it is the red marle, called also Capnumargos, which hath intermingled in it a certaine small stony grit full of sand: This stony marle the manner is to break and bruiſe vpon the very lands; and for the first yeares, hardly can the straw be mowife or cut downe for the said stones. Lighter is this marle than the rest by the one halfe, and therefore the cariage thereof into the field is least chargeable. It ought to be ſpred and laid thin, & some thinke that it standeth somewhat vpon salt. But both the one and the other will ſerue well for fifty yeares, and the ground enriched thereby, will (during that time) yeeld plenty as well of corne as graſſe.

CHAP. VIII.

¶ Sundry ſorts of Earth and Marle.

OF those marles which are found to be fat, the white is chiefe; and thereof be many ſorts. The most mordant and sharpest of them all, is that whereof wee ſpake before. A ſecond kind there is of chalkiſh clay, which our gold-smiths vſe (called Tripela:) this lieth a great depth within the earth, inſomuch as many times men are driuen to ſinke pits 100 foot deep, for it; and those haue a ſmall and narrow mouth aboue, but within-forth and vnder the ground they are digged wider, by reaſon that the veine thereof runneth many waies, in manner of other mettall mines. This is the marle ſo much vſed in Britain: the ſtrength thereof being caſt vpon a land, will laſt 80 yeares; and neuer yet was the man known that herewith marled the ſame ground twice in all his life time. The third kind of white marle, is that which the Greekes call Glifchromargon: it is no other than the Fullers chalkie clay mixed with a viſcous and fatty earth. The nature of it, is to breed graſſe better than to beare corne: for after one crop of corne is taken off the ground in harueſt, before ſeed time is come for winter grain, the graſſe will be ſo high growne, that a man may cut it down and haue a plentiful after-math for hay; and yet al the while that it hath corn vpon it, you ſhall not ſee it to beare any graſſe beſides. This marle continueth good 30 yeares: if it be laid ouer-thick vpon a land, it choketh the ground in manner of * Cumine. The Columbine marle, the Gauls call in their language, by a name borrowed of the Greekes, Pelias, (i. Doue or Pigeon marle:) it is fetched out of the ground in clots and lumpes, like as ſtones be hewed out of quarries: with Sunne and the froſt together, it will reſolue and cleane into moſt thin ſlates or flakes. This marle is as good for corne as for herbage. As for ſandy marle, it will ſerue the turn for want of other: yea and if the ground be cold, moiſt, and weely, the husbandman will make choiſe thereof before other.

The Vbians, vpon my knowledge, vſe to enrich their ground and make it more battle (though their territory otherwiſe be moſt fertile) with any earth whatſoeuer; provided alwaies that it be digged vp three foot deep at leaſt, and laid a foot thick; a deuife that no other country doth praſtiſe: howbeit this ſoile and manner of manuring, continueth good not aboue ten yeares: the Heduians and Piſtones, haue forced their grounds and made them moſt plentifull, with limeſtone; which is found alſo by experience to be paſſing profitable for vines and oliues.

To come now to the ordering of this piece of husbandry: the ground ought to be ploughed firſt, before marle of any ſort be caſt vpon it; to the end that the medicinable vertue & ſubſtance thereof, might the ſooner and more greedily be receiued into it. Now for aſmuch as marle is at the firſt ouer-rough and hard, not ſo free in the beginning as ro reſolue and turne into blade or graſſe, it had need of ſome compoſt or dung to be mingled with it: for otherwiſe, be it neuer ſo rich, it will rather do harm than good to the ground, by reaſon that it is yet ſtrange and not acquainted therewith: and yet help it this way as well as you can, it will not bring forth any plenty the firſt yere after it is laid on. Laſt of all, it ſkillesh much to conſider the nature of the ground, which you mean to marle: for the dry marle, ſorteth well with a moiſt ſoile; and the fatty, hitteſh that which is dry and lean. But when the ground is of a middle temperature between both, it mattereth not whether you vſe the white gold-smiths chalke, or the Columbine marle, for either of them will ſerue well enough.

CHAP.

CHAP. IX.

¶ The vſe of aſhes vpon lands: of Dung: what graine or pulſe ſowne, doth make the ground more plentifull, and what burneth it.

THE people dwelling beyond the Po, make ſuch account of a ſhes for to enrich the grounds withall, that they prefer it before horſe-muck, and ſuch like: which dung (becauſe they take it to be very light) they burne alſo into aſhes for that purpoſe. Howbeit (as we haue ſaid before) in one and the ſame corn-land, they vſe not aſhes and mucke both at once: no more doe they caſt aſhes in hortyards for to nourish yong trees, nor in fields, for ſome kind of corn. Some are of iudgement, that grapes are fed with duſt: who alſo do caſt duſt vpon them when they begin to bloome, yea and beſtrew duſt vpon the roots as well of Vines as other trees. Certain it is, that in the prouince of Narbon they vſe ſo to do; and they are aſſuredly perſuaded, that grapes ripen better and the vintage commeth the ſooner thereby: becauſe in thoſe parts duſt doth more good than the Sun.

As for mucke, there be diuers ſorts thereof, and in old time much vſe therewas of it: for in Homer we read, that long ago the good old king [Laertes] was found laying ſoile and dung vpon his land with his own hands. The firſt that deuſed mucking of grounds, was (by report) Auguſtus a king in Greece: but Hercules diuulged the praſtiſe thereof among the Italians, who in regard of that inuention immortalized their K. Stercutius the ſon of Fauus. M. Varro eſteemeth the dung of Blackbirds (gathered out of their bartons where they be kept in mew) aboue al others. He highly magnifieth and extolleth it alſo, for that it bringeth forth ſo good forage to feed kine, oxen, and ſwine withall: auouching for certaine, that they will become fat beefe and pork with no meat ſooner. We muſt thinke well therfore and hope the beſt of the world now adaies, ſince that our anceſtors and forefathers ſo long ago had ſo great bartons and pens, that the dung of ſouls there kept, was ſufficient to help their hard and hungry grounds. In the ſecond degree of goodneſſe, Columella, rangeth Pigeons dung gathered out of Doue-cotes: the third place hee giueth to that of Hens, and other land pullen, reiecting altogether the dung of water-ſoule. Howbeit all other Authors (ſetting theſe two aſide) attribute with one voice and conſent vnto the excrements of mans body, the greateſt praife for this purpoſe. Some of them prefer mans vrine, and namely, when the haire of beaſt-hides haue bin foked therewith and quicke-lime together in the Tanners pits. Others vſe vrine alone by it ſelfe, only they mingle water with it a gaine, but in greater quantitie a good deale, than they (whoſe vrine it was) did put to the wine when they drank it; and good reaſon too; for more need there is now to correct and repreſſe the malice thereof, conſidering that beſides the native malignitie of the wine it ſelfe, mans bodie hath giuen and imprinted into it, a ſtrong and vnfauorie quality. Thus you may ſee how men labour, ſtrive, and try conſolutions, to feed and enrich the very ground, the beſt way they can deuife. Next vnto the ordure and vrine of mans body, the filthy dung of ſwine is moſt commended: only Columella condemneth it. Some praife the mucke of any foure-footed beaſt whatſoeuer, ſo they were fed with Tree-trifolice, called Cytifus. Others prefer the doung of Pigeons before any other; in the ſecond place that of Goats; thirdly of ſheepe; then of kine and oxen; and laſtly of cart-jades, mules, aſſes, and ſuch like. Thus you ſee as well what difference there was in times paſt, between this dung and that; as alſo what were the rules (ſo farre as I can gueſſe and learne) whereby they went, in the vſe and ordering thereof: for, to ſay a truth, the old way is beſt; euen herein as well as in other matters.ouer and beſides, the praſtiſe hath bin already ſeen in ſome of our prouinces (where there is ſo great ſtore of cattell bred) to riddle and ſift their dung ouer their ground through ſieves, in manner of meale; and ſo in proceſſe of time it loſeth not only the ſtinking ſent and ill-fauored ſight that it had, but alſo turneth into a pleaſant ſmel, and looketh lovely withall. Of late, found it hath been by experience; that Oliue trees doe like and proſper very well, if the aſhes of lime-kills eſpecially be laid to their roots. Varro, among many other precepts, addeth and ſaith, That corne grounds would be manured with horſe-dung, becauſe it is the lighteſt; but meadowes require compoſt that is heauier, and namely, made by beaſts that haue barley for their prouender; for that ſuch ſoile bringeth plenty of graſſe. Some there bee a ſo, that preferre the dung made by horſes, before the mucke of kine and Oxen; likewise ſheepe treddles, before Goats dung: but Aſſes mucke before all other, becauſe they

they eat and chew their meat most leifurely. But daily experience teacheth the contrary, and testifieth againft the one and the other. And thus much as touching compoft of mucke.

Furthermore, all men are of opinion, that nothing is better for the ground, than to fow Lupines therupon; prouided alwaies, that before it cod, it be turned into the ground by the plough, fpade, or two-piked yron forke: alfo when it is cut down, to make it into wads or bottles, and fo to bury them at the roots of trees, and vines efpecially. In countries where there are no cattell to better the lands, it is thought good to manure the fame in ftead of beafts dung, with very hawme, ftraw, and fenne. *Cato* hath a deuife to make an artificiall mucke or compoft of litter, lupine ftraw, chaffe, beane stalks, leaues and branches both of Maft-holm and oke. He faith moreover to the fame purpose: Weed out of the ftanding corn * Walwort [otherwise called Dane-wort] and Hemlock; alfo from about oſier-plots, plucke vp ranke weeds, or ground Elder; alfo Reeke or Sea-graffe, and dead leaues or branches lying rotten vnder trees: when thou haſte ſo done, ſtrew, and lay a courſe of them vnder ſheep where they be folded. *Item*, If the Vine begin to decay and wax leane, burne the fthreads and cuttings of the owne, and turne the afhes vnder ground hard to the roots thereof. *Item*, where thou meaneſt to fow any wheat or ſuch like bread-corn, draw thy ſheep thither, and there fold them. He faith moreover, that the ſowing of ſome graine is as good as a dunging to the ground: for theſe be his very words, The fruit it ſelfe of the earth is a batling to the earth; and namely, Lupines, Beans, and Vetches, for they muck the lands: like as on the contrary ſide, Chiches do burne the ground, both becauſe they are plucked, and alfo for that they ſtand vpon ſalt. Semblably doth Barley, Foenigreeke, Eruiel, and generally all kind of pulſe which are pulled and not mowne downe. *Item*, Take heed (quoth *Cato*) that you ſet no pepins or kernels, where you meane to ſow corne. As for *Virgil*, he is of opinion, that the ſowing of Line-feed for flax, likewiſe of Otes and Poppies, do burne corne-ground and pill it out of heart. He alſo giueth rules as touching mucke-hills, That they ſhould be made in the open aire, within ſome hollow place where it may gather water; that they be covered ouer with ſtraw and litter, for feare they ſhould dry in the Sun; and laſt of all, that they haue a good ſtrong ſtake of Oke pitched and driuen in about the mids thereof, for ſo there will no ſnakes nor ſuch like ſerpents breed and ingender therein. Moreover, as touching the ſpreading of mucke, and mingling it with the mould of a land, it is exceeding good to do it when the winde ſetterh full Weſt, ſo that the Moon then be paſt the full and in the Waime. But this rule many haue miſtaken and not conſtrued aright, ſuppoſing that they ſhould ſo do when the Weſtern wind Fauonius beginneth to riſe, and namely in the moneth of Februarie only; whereas indeed moſt corn-lands require this point of husbandry in other moneths as well. But looke what time ſoever you liſt to do it, be ſure in any hand that the wind do then blow from the Equinoſtiall point of the Weſt, and that the moone then be in the waime, and drie withall. Haue regard to theſe rules and obſeruations, you will wonder to ſee the effects thereof, and what increaſe the earth thereby will yeeld.

CHAP. X.

¶ The planting and ſetting of trees: the manner how trees do grow, by a ſion ſlued and plucked from the root.

Now that we haue already ſufficiently treated of the conſiderations as well of the aire and ſkie, as of the earth, belonging vnto plants and trees; me thinks it were to good purpoſe to diſcourſe of the induſtry and artificiall meanes that men haue vſed to make trees grow: and verily we ſhall find no fewer kinds of them that come by mans hand, than of ſuch as nature it ſelfe hath brought forth; ſo kind and thankful we haue bin to her, as to make recompence in this behalfe. Firſt and formoſt therefore this is to be noted, That all trees do grow either of ſeed ſowne, or of branches growing to the tree and couched in the ground, or of an old ſtocke from whence new imps may ſprout: alſo, either of a ſlip or ſprig plucked from another tree, and ſo laid in the ground; or of a young ſhoot, twig, impe, or ſion, engraſſed in the very trunk of a tree, ſlit and clouen for that purpoſe. For I cannot chuſe but maruell much at *Trogus*, who was verily perſuaded, That about Babylon the leaues onely of Date trees beeing ſet or ſowne, would proue trees. Now whereas there be ſo many deuifes abouefaid for to nourish trees, this you muſt vnderſtand, that ſome trees there be which will grow by many of theſe waies before ſpecified,

A ſied, and others by them all. And verily the moſt part of this knowledge hath beene taught by Nature her ſelfe: for firſt of all, we haue learned by her for to ſow ſeed, by occaſion that we haue ſeen ſome to fall from trees, which being received by the ground, haue chitted, taken root, and liued. And in very truth, ſome trees there be that grow no otherwiſe, as Cheſtnut, and Walnut-trees, excepting onely thoſe that being cut downe, doe ſpring new again from the root. Of ſeed alſo (although the ſame be farre vnlike to others) thoſe alſo will grow; that are vſually planted otherwiſe; as for example, Vines, Apple trees, and Pyries: for in theſe the ſtone and pepin with-in, ſerueth in ſtead of the ſeed; and not the fruit it ſelfe, as in thoſe before rehearſed, the kernels whereof [i. the fruit] are ſowne. Medlars likewiſe may come vp of ſeed. But all the ſort of theſe that ſpring after this manner, be late ere they be come forward, and ſlow in growth: they turn alſo to a degenerat and baſtard nature, and had need to be graſſed anew ere they be reſtored to their owne kind: which is the caſe of Cheſtnuts alſo otherwhiles. Howbeit there be others for them againe, which (ſow or ſet them what way you will) neuer grow out of their owne kind; and ſuch be: Cypreſſes, Date trees, and Lawrels: for the Lawrell commeth vp by ſowing, by ſetting, and planting, after ſundry ſorts. The diuers kinds whereof, we haue deſcribed already. Of all which, the Lawrell Auguſta with the broad leaues, the common Bay tree alſo that beareth berries, as alſo the wild kind named *Tinus*, be ordered all three after one and the ſame ſort. The manner whereof is this: the Bayes or berries thereof, be gathered dry in the moneth of Ianuary when the Northeaſt wind bloweth: they are laid abroad thin to wither, one apart from another, & not in heaps, for feare they ſhould catch a heat. This done, ſome put them afterwards in dung; and being thus prepared and ready for to be ſowne, they ſteep them in wine. Others take and lay them within a large basket or twiggen panier, trample them vnder their feet in a brook of running water, untill they be pilled and rid of their outward ſkins: for otherwiſe their ſkin is of ſo rough and moiſt a ſubſtance, that it would hardly or not at all ſuffer them to come vp & grow. After all this, in a plot of ground wel and thoroughly digged once or twice ouer, a trench or furrow muſt be made a handfull deepe, and therein the berries ought to be buried by heaps, to wit, twenty or thereabout together in one place: and all this would be done in the moneth of March. Lawrels alſo will grow, if their branches or boughes be bended from the ſtocke and laid within the ground: but the Triumphall Lawrell will come vp no other way but by ſetting a graffe or impe cut from it. As for the Myrtle, all the ſorts thereof within Campaine, come of berries ſowne: but we at Rome uſe to interre onely the boughes of the Tarentine Myrtle, growing ſtill to the body, and by that means come to haue Myrtle trees. *Democritus* ſheweth another deuife alſo to increaſe Myrtles, namely, to take the faireſt and biggeſt berries thereof, & lightly to bruife or bray them in a mortar, ſo that the grains or kernels within be not broken; & then to beſmire with the batter or ſtamped ſubſtance thereof, a courſe cord made of Spart or Spaniſh broome, or els hempen hurds, and ſo lay it along within the ground. Thus there wil ſpring therof, a maruellous thick Hay or wall (as it were) of yong Myrtles: out of which, the ſmall twigs you may draw which way you will, yea, and plant them elſewhere. After the like manner, folke uſe to ſow thorns or brambles for to make hedges & mounds, namely, by anointing ſuch another hempen ropewith bramble blacke-berries, and interring the ſame. As, for Bayes thus ſowne, when they come once to beare a dark and blackiſh leafe: Myrtles alſo, when their leaues be of a wine color, to wit, of a deepe red (which commonly happeneth when they be three yerres old) it will be time to remoue and tranſplant.

Among thoſe plants and trees that are ſowne of ſeeds, *Mago* maketh much ado, and is ſouly troubled about thoſe trees that beare nuts, & ſuch like fruit in ſhells: for to begin with almonds firſt, he would haue them to be ſet in a ſoft clay ground that lieth into the South: & yet he ſaith againe that Almond trees loue a hot and hard ſoile; for in a fat or moiſt ground, they will either die or els wax vnfruitful. But aboue all, he giueth a rule to chuſe Almonds for to ſet or ſow, that be moſt hooked, and efpecially ſuch as were gathered from a yong tree: alſo he ordaineth, that they ſhould be well ſoked or infused in ſoft beaſt ſherne or thin dung, for three daies together: or at leaſtwiſe in honied water, a day before they be put into the ground. *Item*, they ought (by his ſaying) to be ſet charily with the ſharp and pointed end pitched downward, and the edge of the one ſide to turne into the Northeaſt. Alſo that they muſt ſtand three and three together in a triangle, forſooth, ſo as there be a handbreadth iuſt between euery one. Moreover, that euery tenth day they ought to be watered, till they be ſhot vp to a good bigneſſe. Now to come vnto

walnuts, they be laid along within the earth, with this regard, that they do ly vpon their ioints: G
As for pine nuts, there would be six or seuen of their kernels put together into pots that haue
holes in them, and so buried in the ground: or else they should be ordered after the manner of
the Bay tree, which commeth of berries bruised, as hath been shewed before.

The Citron tree will grow of seed, and may be set also of spriggs or twigs drawne to the
ground from the tree, and so couched. Seruis trees come of the grains thereof sowed of a quick-
set plant also with the root, or of a slip plucked from it. But as the Citron trees liue in hot
grounds, so these Seruises loue cold and moist.

As concerning feminaries and nourse-gardens, Nature hath shewed vs the reason and maner
thereof, by certaine trees that put forth at the root a thick spring of yong shoots or sions, but
lightly the mother that beareth these imps, killeth them when she hath done, with her shade H
and dropping together. And this is euident to be seene in Lawrels, Pomegranate trees, Planes,
Cherry trees, and Plum trees: for standing as these imps doe, a number of them without all or-
der vnder their mother stocke, they be ouershadowed and kept downe so, that they mislike and
neuer come to prooffe. Howbeit some few there be of this sort, that are not so vnkinde to their
yong breed, as to kill them with the shadow of their boughs, and namely Elmes & Date trees.
This would be obserued by the way, that no trees haue such yong imps springing at their feet,
but they only whose roots for loue of the warm sun and moist rain, spread aloft and ly e within
the ground. Moreouer, the manner is not to set these yong plants presently in the place where
they must remaine and continue for altogether, but first they are to be bestowed in a piece of
ground where they may take nourishment, to wit, in some nourse-garden for the nones, vntill they
are grown to a good stature; and then they are to be removed a second time to their due place.
And a wonder it is to see, how this transplanting doth mitigate euen the sauage nature of the
wildest trees that are: whether it be that trees as well as men are desirous of nouelties, and loue
to be traouelling for change; or that as they go from a place, they leaue behind them their ma-
licious qualitie, and being vsed to the land, become tame and gentle like the wild beasts; espe-
cially when such yong plants are plucked and taken vp with the quicke root. Wee haue lear-
ned of Nature also another kinde of planting like to this: for we see that not only water shoots
springing out of the root, but other sprigs slipped from the stocke, liue and doe full well: but
in the practise of this feat they ought to be pulled away with a colts foot of their owne, so as
they take a quicke parcell also of their mothers bodie with them, in manner of a fringe or bor-
der hanging thereto. After this manner they vse to set Pomegranate, Filberd, Hazell, Apple,
and Seruise trees; Medlars also, Ashes, and Figge trees; but Vines especially: marie, a quince
ordered and planted in that sort, will degenerate and grow to a bastard kinde. From hence
came the inuention, to set into the ground yong sprigs or twigs, cut off from the tree. This was
at first practised with foot-sets for a prick-hedge, namely, by pitching down into the earth, El-
der, Quince-cuttings, & brambles; but afterwards men began to do the like by those trees that
are more set by, and nourished for other purposes, as namely Poplars, Alders, and the Willow,
which of all others may be pricked into the ground with any end of the cutting or sprig down-
ward, it makes no matter whether, for the smaller end will take as well as the bigger. Now al the
fort of these are bestowed and ranged in order at the first hand, euen as a man would haue them
and where he list to see them grow, neither need they any removing or transplantation at all.
But before we proceed any further, to other sorts of planting trees, it were good to declare the
manner how to order seminaries, seed-plots, or nourse-gardens.

For to make a good pepinier or nourse-garden, there would be chosen a principal and spe-
cial peece of ground: for oftentimes it falleth out, yea and meet it is, that the nourse which gi-
ueth sucke should be more tender ouer the infant, than the owne naturall mother that bare it.
In the first place therefore, let it be found and drie ground, howbeit furnished with a good and
succulent elemental moisture, and the same broken vp and afterwel digged ouer and ouer with
mattock and spade, and brought to temper and order, so as it be nothing coy but readie to re-
ceiue al manner of plants that shall come, and to entertain them as welcome guests; & withall,
as like as may be to that ground vnto which they must be removed at last. But before al things
this would be looked to, that it be rid clean of all stones, surely fenced also and paled about, for
to keep out cockes and hens and all pullen: it must not be full of chinkes and cranies, for feare
that the heat of the sunne enter in and burne vp the small filaments or strings and beard of the
new

A new roots: and last of all, these pepins or kernels ought to stand a foot and a halfe asunder: for
in case they meet together and touch one another, besides other faults & inconueniences, they
will be subiect to wormes: and therefore I say there would be some distance between, that the
ground about them may be often harrowed and raked, to kill the vermin, and the weeds pluckt
vp by the heeles that do breed them. Moreouer, it would not be forgotten to proin these yong
plants when they are but new come vp: to cut away, I say, the superfluous sprigs vnderneath,
and vse them betimes to the hooke. Cato giueth counsell to sticke forks about their beds a mans
height; and lay hurdles ouer them, so as the Sun may be let in vnderneath: and those hurdles to
couer and thatch ouer with straw or holme, for to keepe out the cold in winter. Thus are yong
plants of Peare trees and Apple trees nourished: thus Pine nut trees, thus Cypresses which do
likewise come vp of seed, are cherished.

As for the grains or seeds of the Cypres tree, they be exceeding small, and so small indeed,
that some of them can scarce be discerned well by the eye. Wherein the admirable worke of
Nature would be considered, to wit, that of so little seeds should grow so great and mightie
trees, considering how far bigger are the cornes of Wheat and Barley (to make no reckoning
nor speech of Beans) in comparison of them. What should we say to Peare trees and Apple
trees? what proportion or likenesse is there between them, and the pretty little pepins whereof
they take their beginning? Maruell we not, that of so slender and small things at the first, they
should grow so hard, as to checke and turne again the very edge of ax and hatchet: that frames
and stocks of presses should be made thereof so strong and tough, as will not shrinke vnder the
heauiest poise and weights that be: that Mast-poles comming thereof should be able to beare
faile in wind and weather: and finally, that they should afford those huge and mightie Rams
and such like engins of batterie, sufficient to command towers and bastils, yea, and beat downe
strong walls of stone before them? Lo what the force of Nature is! see how powerfull shee is
in her works! But it passeth and exceedeth all the rest, that the very gum and liquour distilling
out of a tree, should bring forth new plants of the same kind, as we will more at large declare in
time and place conuenient. To returne then againe to the female Cypres (for the male as hath
bin said already bringeth forth no fruit) after that the little balls or pills (which be the fruit
thereof) be gathered, they are laid in the Sun to dry, during those moneths, which we haue be-
fore shewed, and being thus dried, they will breake and cleaue in sunder. Now, when they are
thus opened, they yeeld forth a seed which Pismires are very greedy of. Where another won-
der of Nature offereth it selfe vnto vs, That so small a creature as it should eat and consume the
seed which giueth life and being to so great and tall trees as the Cypres. Well, when the said
seed is gotten, and the plot of ground laid euen and smooth, with cilinders or rollers, it must be
sowne of a good thicknesse in the moneth of Aprill: and fresh mould sifted and strewed ouer
with riddles an inch thicke and no more: for if this grain be buried ouer-deep and surcharged,
it is not able to break through against the weight of the earth, but in stead of rising vp, the new
chit turneth and bendeth backward vnder the ground. And hereupon it is that folke forbear
either to go at all vpon it, or else they tread very lightly. Being thus sowed, it must be gently
watered for three daies following, after the Suns setting, (that the earth may drinke equally in
all places) vntill the sprouts appeare aboue ground. Now, after they haue had a yeaeres growth,
they be translated and re-planted againe in rewes: for by that time they are come to a span or
nine inches in height: but great care must be had that the time be temperat, that is to say, that
the weather be fresh and faire without any wind. Certes a wonderful thing it is to be spoken,
that all the danger or security of this tree, standeth vpon the choice of that only day wherein it
is replanted: for let there fall neuer so small a rain or dew, nay let the wind blow neuer so little,
it is a great hazard whether it will die. For euer after it is warished and safe enough, howbeit
it cannot abide a glut of rain at any time following. Moreouer, as touching Iubbes, they are
likewise set of their graines in the moneth of Aprill. But that kinde of Peaches or Abricots
which be called Tuberes, loue better to be grafted either vpon a skeg or wilde Plum-stocke, or
Quince, or else vpon the wild Hart-Rhamme, called Calabricum, [or Spina Cervina.] To knit
vp this discourse, the fruit Sebesten and the Seruises may be grafted and planted both vpon the
same kind of stocke: and looke what will beare the one, is apt to receiue the other.

CHAP. XI.

¶ The manner of translating or replanting out of one seminarie or nource-garden into another. How Elmes are to be planted. Also as touching trenches.

SOME would haue vs to remoue plants out of one seminarie into another, before they be set indeed where they should be for to continue: which me-thinkes is a matter of more toile and curiositie than necessitie, howfoeuer they make promise, that by such transplanting, the leaues will proue larger and broader.

* The first of March.

Now for Elms, their seed or grain is to be gathered about the * Calends of March, when it beginneth to turn yellow, and before the leaues break forth. After it hath bin dried in the shadow for two daies, it is to be sown thick in a plot of ground well broken vp and laid hollow beforehand, and then must there be mould seared ouer through a fine riddle, to the same thicknesse as we haue appointed for the Cypres. In case no raine do fall in due time, it ought to be watered by hand. After one yere, the plants that come herof must be taken vp out of the trenches and ranges wherein they came vp, and translated directly into the Elme plots where they are to grow; with this care & good regard, that they stand a foot at least euery way distant one from another. As for the male Elmes, vnto which Vines are wedded, because they are without seed, it is better they were planted in the Autumne: and for that they want seed they would be set of plants. Here with vs about Rome side they vse to replant them again in their groue-plots when they be five yeares old, or as some would haue it, so soon as they be come to 20 foot in height. The manner whereof is this, in a trench or ditch called * Nouenarius, 3 foot deep in the ground, and as many broad, or rather more, they are set: which done, for three foot in height euery way about the foot of each tree from the ground as it stands, there must be banks raised of some earth, after the maner of those seats which they cal Arulæ in Campanie. As for the spaces between tree and tree, they ought to be set out and disposed according to the nature and scituation of the place, and as the ground wil giue leaue. In the champion and plain country, those would be planted that are of a drier nature, and likewise in a thinner course. As for Ashes and Poplars, because they make hast to spring, leafe, and bud out betimes, it is meet that their plants likewise were set and ranged with the first, that is to say, about the * Ides of Februarie; for they also grow of plants, and may well be replanted.

* Nine foot distant euery way from another, for trees were planted ordinarily with that space between as may appear in the next chapter.

* The 13 day of Februarie.

Now for the order of setting trees either in groues, hort-yards, or vine-yards, wee ought to follow the vsuall maner of checquer row, called Quincuntial, which is not so common, but it is also as necessarie: not only good to admit all kindes of winde to passe betweene, but also faire and pleasant to the eye, considering, that which way foeuer a man looks, there offer to his sight both the allies, and rewes, directly ranged in order.

The Opiets or Wich-Hazels are sown of seed after the same maner as Elme: in like sort also are they to be remoued & transplanted out of their nource-plots, as if they were wild, drawn from the very forrests.

Moreover, about all things this would be considered, that a tree to be remoued ought to be translated either into the like ground from whence it came, or else into a better. For we must take heed how we remoue plants out of warme grounds, & where the fruit is early ripe, into others that be colder or late in ripening. Semblably, out of cold & hard places, they would not be translated into warm, mellow, and forward. Item, if it be possible, let the trenches be cast and digged so long before, that a good thicke green sould be ouergrowne against the time that you mean to plant. *Mago* is of opinion, That the said trenches should stand made a yeare before at the least, that they might be fully seasoned with the Sun, and receiue all rain, winde, & weather thoroughly. But in case it fall out otherwise, that the opportunitie thereof be ouerslipped, or our leisure wil not serue, he would haue fires to be made in the midst of them two moneths before, and in no case any trees to be set but after showres of rain. And if the ground be tough or hard, and standing vpon the cley, the ditches ought (according to *Mago*) for to be three cubits deepe euery way: and if they be to plant plum trees, he would haue them be a hand-bredth more, or spanne in deapth, and digged on euery side hollow, and vaulted in manner of a founnace, with a narrower mouth in the top. In a blacke veine of ground, by his direction, it is sufficient that they be two cubites and a hand-breadth or spanne deepe, and made foure-square in man-

A ner of a quadrangle. In the measure and proportion of these ditches, the Greeke writers doe accord in one, saying, that they ought not to be more than two foot and a halfe deepe, nor wider than two foot bare: also, that in no place it must be vnder a foot and a halfe deepe, for that in a moist soile, we shal come ordinarily neer to water about that skantlin, and not before. But *Cato* is of another judgment, If (quoth he) the place be waterish, let the trenches be three foot broad in the mouth, but in the bottome not about a foot and a hand-breadth, but see they be foure foot deepe: provided alwaies, that they be * paved beneath with stone: and for want thereof, laid with green willow bastons, and for default of them, with vine cuttings, or such trouffe, so that they lie halfe a foot thicke. But considering the nature of trees wherof we haue before written, I think it not amisse to adde somewhat of mine owne, namely, The more ebbe that any roots of trees creepe vnder the ground, the deeper they must be set into the earth, as for example, the Ash and the Oliue tree: for they and such other like ought to stand foure foot deepe. As for all the rest, it skils not, if they goe no deeper than 3 foot, for that is thought sufficient. [Stocke me vp this root here (quoth *Pappyrus Cursor* a Roman in General, in a brauery, when he meant to terrifie the Pretor of the Præcinctines.) Whereby it is plain that the more secure & safe way in his judgment was rather to cut the stocke and maister Root indeed, than slightly to pare away those bare roots that appeare naked about ground; for that might be done, and the tree neuer the worse for it.] Some there be that would haue round peble stones laid in the bottom of such ditches, which might as wel contain and keep water, as let it forth and giue issue therto: whereas broad flat stones would not so doe, but besides, hinder the root that it should not goe downe and take hold of the earth. For to keep therefore a meane betweene, it were good in mine opinion; to lay grauell vnder the root.

* It seems that *Cato* meant of trenches to drain water out of low grounds: and not as *Pliny* mistaketh.

Moreover, there be diuers men of this mind, that a tree should not be remoued, either vnder two yeares old, or about three: whereas others make no question to transplant them after the first yeare, without more adoe. *Cato* alloweth not of translating a tree, vnlesse it beare in thicknesse more than 5 fingers. And verily, so exactly hath he written hereof, that he would not haue forgotten, to make in the barke of trees the South side, before they were taken vp, in case, hee had thought that it was material to the replanting of them, that they should stand just in the same position and accustomed coast of the heauen, as they did before, for feare least that side which regarded the North, if now it should be opposed against the South, might cleaue and rift with the heat of the Sunne, not vfed thereto: and contrariwise, the parts which looked Southward, might now by the Northern winds, be clunged and congealed withall. Now there be some that affect a cleane contrarie course, and namely, in the Fig tree, and the Vine, exchanging the one side for the other: being fully persuaded, that by that means they will beare leaues thicker, preserve and defend their fruit better, and in the end shed fewer: more particularly, that the fig-tree therby wil be the * more easie to climb. Most men take great heed of this only, that when they prune trees, and cut off the top ends of boughes, the cut may be toward the South; without any regard or consideration, that in so doing they expose the boughs to the danger of cleauing, by reason of the hotte Southern wind which lieth vncessantly beating vpon them. Yet hold I rather with them, that would haue branches cut Southeast or Southwest, namely, toward the points where the Sun is, at the fift and eight houres of the day. Another secret there is besides, wherof they are as ignorant, howbeit, not to be neglected, namely, to beware that the roots of such trees as are to be replanted, stay not long about ground, and thereby wax drie: also, that trees bee not digged vp, either standing into the North, or in any quarter between that point and the Southeast, where the Sunne riseth in midwinter, in case the wind sit in those corners: or at leastwise, that the roots be not exposed bare against any of those winds: for surely, many a tree dies hereby, and husbandmen neuer know the cause thereof. *Cato* vtterly condemneth al maner of winds whatsoeuer, yea, and raine too, all the while that trees be in remouing. Moreover, in this case it is singular good, that there hang to the roots of these trees, when they be translated, as much of the old earth wherein they liued and grew before, as may bee, yea, and (if it were possible) to bring them away with the turfs whole and entire, lapped fast about the roots. And therefore *Cato* provided wel, that such yong plants should be caried in baskets, earth and altogether with the roots. Doubtlesse, not without very great reason there is one Author saith, That it is sufficient that the vppermost course of the old mouth that lay at the foot of the tree, should be put vnder the root thereof now when it is replanted. Some write, that if the bottom of the hole or graue

* *Scantlin* reading it *distemper*, happily for *distemper*, out of *distemper*, (*distemper*) more fertill and fruitful.

grave be paved with stone where Pomegranate trees should stand, the Apple or fruit that they G
bear, wil neuer burst nor cleave vpon the trees. Also, that the roots of trees when they are to be
set, should be laid bending at one side, and not stand direct and streight. Moreouer, that the tree
in any case be set just in the mids of the ditch or hole made for it. It is said moreouer, that if a
man plant a fig-tree, together with the sea-onion, Scilla (that is a kind of the Bulbi) it wil make
hast to bear Figs, and those wil not be subiect to the worme: and yet other fruits will be worm-
eaten neuertheless, let them with the said Scilla as well as you can. As for the roots of a tree
who makes any doubt, that great care should be had in the taking of them vp: so as they might
seeme rather drawn forth gently, and not plucked vp violently. But my purpose is not to dwell
in these matters, nor to stand much vpon such points, which haue a manifest reason, and wherof
no man is ignorant or doubtfull: to wit, that the earth is to be well driuen and beaten downe H
close with a rammer, that it may lie fast about the roots, which *Cato* judgeth to bee a principall
point for to be obserued in this businesse: who also giueth a rule, that the place where a tree is
cut in the body, should be plaistered ouer with dung, couered ouer also, and fast tied with leaues.

CHAP. XII.

¶ *Of the spaces and distances that ought to bee betweene trees planted: of their shad-
dowes and droppings: of the place where they should be planted.*

I T belongeth to this place properly for to speak of the distances between tree and tree, in the
setting. Some writers are of opinion, That Pomgranat trees, Myrtle trees, & Lawrels, should I
be planted thicker than ordinarie, howbeit, with this regard, that they be set 9 foot asunder
one from another. As for Apple trees, they may stand a little more at large, Peare trees some-
what wider than they, Almond trees, and Fig trees yet a little more than all the rest. But herein
must we be ruled & directed by the boughs spreading more or lesse, by the room of the place it
selfe, and according to the shadow that each tree casteth. There is not (I say) any one of these
considerations to be neglected, and the shade especially of all others would be obserued. For
such trees as branch round as it were in compasse, although they be otherwise great, as namely
Apple trees, and Pyrries, yet they yeeld no great shadow: whereas a man shall see Cherry trees
and Lawrels take vp an exceeding deale of ground with their shade. Now these shaddowes of
trees haue their properties by themselves, for that of the Walnut tree is noisome and hurtfull K
euen to man, breeding heauinesse in the head: and an ill neighbour it is besides to all plants ei-
ther vnder or neere vnto it. The Pine tree also with her shadow nipperh and killeth the yong
spring of all plants within the reach thereof. Howbeit, both it and also the Walnut tree resist
the force of winds notably, and therefore they serue in good steed to protect vineyards, and are
projected against the winds to breake their violence. The dropping of the Pine, Oke, and Mast-
holme, by reason of the raine water wherewith they are much charged, is very heavy and ponde-
rous, and therefore hurtfull. As for the Cypresse tree, it droppeth little or nothing, by reason
that it receiueth so small a deale of rain: and in truth of all others the shade is least, the boughs
are knit and trust so round, and run vp sharpe pointed in the top. The Fig tree giueth no thicke
shadow, howeuer the boughs spread large ynough: which is the cause, that no man forbiddeth L
the planting of them in Vineyards among Vines. And as for Elmes, their shade is so milde and
thin, that it nourisheth whatsoeuer it ouerspreads vnder it. Howbeit, *Atticus* is of opinion, That
the shaddow of Elmes is one of the thickest and most hurtfull: neither doe I make any doubt
thereof, if they be let to spread into great armes and boughes at liberty: marie, if the branches
thereof, or if any tree within-forth be shrigged, I thinke that the shade will doe no harme at all.
The Plane tree carieth a heauie head, and therefore casteth a thicke shade, howbeit, pleasant it
is, and refreshes those that sit vnder it: for resting there is vpon the grasse, rather than the bare
ground: and there is not a tree againe where grasse groweth thicker and longer, to couer the
bankes and seats vnder it. As for the white Poplar or Aspen tree, it maketh little or no shade at
all, the leaues keep such a wagging & trembling, and neuer hang still: the shadow of the Alder M
tree is far and barte, it feeds whatsoeuer is sowne or set vnder it. The Vine hath shade ynough
to serue her owne turne: the leaues are euer stirring, and by their motion and turning often too
an fro, there is a good temperature of shade and Sunne by that meanes: they serue also in steed
of a conuert in time of raine, and beare off a good shower. Generally, all trees in manner that
haue

A haue their leaues hanging by a long taile, cast but a light and slender shadow. And truly the
knowledge hereof would not be contemned, nor set in the last place of such points as belong to
husbandrie, considering there is not the shadow of any one tree, but either is a kind nource, or a
shrewd and curst step-dame, that is to say, either profitable or incommodious to all the fruits
of the earth. For without all question, the shade of Walnut trees, Pine trees, Pitch trees, & firs
is no better than poison to all that is within the compasse of it, and kills whatsoeuer it touch-
eth. And thus much of Shadowes.

As touching the dropping of trees, a man may conclude in one word all that belongs there-
vnto. For looke what trees soeuer be so defended and clad with thick leaued branches, that the
raine cannot passe readily through them, be sure the dropping and distillation of such is naught
B and dangerous. And therefore it skilleth very much in this matter and question now in hand,
to know the nature of the earth wherein we meane to plant, how many trees it may well bear and
nourish. As for hills, they require of themselves not so great distance betweene tree and tree, as
the plaines beneath: besides, in such places exposed to the wind, it is good that they be planted
thicker. Howbeit, Oliues require the greatest space between of all others: and therefore *Cato* fol-
lowing the judgment of all Italie, ordaines in these words, That they should stand asunder fise
and twentie foot at the least, and thirtie at the most: but this rule holdeth not alwaies, for herein
guided we must bee by the nature and site of places, which varie and differ much. For in Boeti-
ca, which is a part of Spaine, there is not another tree growing bigger than the Oliue: and if we
may giue credite to authors that haue written hereof, there bee in Affricke, by their report ma-
ny of them called Milliarie, for that euery yeare they yeeld a thousand pound weight of oile,
C apeece. And therefore *Mago* allowed threescore and fifteen foot euery way, for distance between
Oliue trees, or else fise and forty at least, euen in leane and hard grounds, and those that were
exposed to the winds. And in Boetica verily, the people vse to reap great plenty of corn among
Oliue trees.

Now of all other follies this is one, and bewraieth shamefull blindness and ignorance, To
be driuen to make glades between trees when they be grown to a good bignes: and namely, ei-
ther by lopping their boughs too much for to let in light between, and so by this means to ha-
sten their age and decay, or els to draw them by cutting them downe cleane: wherein oftentimes
they that did set them at first, take themselves in the manner, and blame their own want of skill.
D Considering therefore, that there is no greater shame can happen to husbandmen than to re-
pent when a thing is done, and then goe about to vndoe it, much better it is of the twain in this
case, to fault in ouerwide, than too streight rounge.

CHAP. XIII.

¶ *What trees grow but slowly: and which they bee that soone come forward:
also, of the Sauiue.*

SOME trees by nature are slacke of growth, and principally those that come of seed, and liue
longest. But such as soone decay and die, are quicke of growth, as the Fig tree, Pomegranat
tree, Plumme-tree, Apple-tree, Peare-tree, Myrtle, and Willow: but they make amends for
E their short life in this, that they goe before others in fruit, and enrich their masters quickly, for
they begin to beare well at three yeeres age, yea, and they make a shew thereof in their blossom
before. Of all these the Peare-tree is the slowest. But the Cypirus, as wel the true & legitimat as
the bastard (which is a shrub called Pseudo. Cypirus) come fastest forward of any other, for
they beare at first both blossome and fruit. This is a generall thing obserued, That al trees will
thriue and prosper better, yea, and grow sooner to perfection, if the shoots and suckers that put
out at the root, as also other water twigs, be rid away, so that al the nourishment may be turned
to the principall stocke only.

The work of Nature in sending out these sprigs, taught vs the feat to couch and lay sets in
the ground by way of propagation: and euen after the same manner briars and brambles doe of
themselves put forth a new off-spring: for growing as they do, smal and slender, and withal run-
ning vp to be very tall, they cannot chuse but bend and lean to the ground, where they lay their
heads againe, and take fresh root of their owne accord without mans hands: and no doubt, ouer-
grow they would and couer the whole face of the earth, were they not repressed and withstood
by

by good husbandrie. The consideration whereof maketh me to enter into this conceit. That men were made by Nature for no other end but to tend and look vnto the earth. See yet what a commodious deuice we haue learned by so wicked and detestable a thing as this bramble is, namely, to lay slips in the ground, and quick-setts with the root. Of the same nature is the Yuiue also, euen to grow and get new root as it creepeth and climbeth. And by *Cato* saying, not onely the Vine, but Fig trees & Oliues also, wil grow & increafe of cuttings couched in the ground; likewise Pomegranate trees, all kinds of Apple-trees, Baies, Plum-trees, Myrtles, Filberds, Hazels of Pranesse, yea, & Plane-trees. Now be there two waies to increafe trees by way of propagation or enterring their twigs. The first is, to force a branch of a tree as it grows, downe to the ground, & so to couch it within a trench foure foot square euery way; & after two yeares to cut it atow, where it bent from the tree; and after three yeares end to transplant it. But if a man list to haue such plants or young trees to beare longer, the best way were to burie the said branches at the first within mould, either in paniers or earthen vessels, that when they are once rooted, they might be remoued all whole and entire in them, and so replanted. The second is a more curious and wanton deuise than this, namely, to procure roots to grow on the very tree, by carrying, and conueighing branches, either through earthen pots or oisier baskets, full of earth, thrust close to the said branches; and by this means, the branches feeling comfort of the warme earth enclosing them on euery side, are easily intreated to take root, euen among Apples and other fruits, in the head of the tree, (for surely by this meanes we desire to haue roots to chuse, growing vpon the very top.) So audacious are men and of such monstrous spirits, to make one tree grow vpon another, far from the ground beneath. Thus in like manner as before, at 2 yeares end, the said imps or branches that haue taken root, be cut off and carried away in the foresaid pots or paniers: thither where they shall grow. As for the Sauine, an herb or plant it is that wil take if it bee in this sort couched in the ground; also, a sprig if it be slipped off cleane from the stocke, will come again and root. Folke say, that if a man take wine lees, or an old bricke out of the wal broken small, and either pour the one, or lay the other about the root, it wil prosper and come forward wonderfully. In like manner may Rosemarie be set as the Sauine, either by couching it, or slipping off a branch from it, for neither of them both liath any seed. To conclude, the herb or shrub Oleander, may be set of any impe, and so grow, or else come of feed.

CHAP. XIII.

¶ Of encreasing trees by seed: the manner of grafting one in another: how the fine deuise of inoculation by way of scutcheon and emplaster was deuised.

Nature not willing to conceal any thing from man, hath also taught him to engraft trees with their seed and graine. For oftentimes it happeneth, that birds being hungrie, haue greedily gobbled vp seed and fruit whole and sound, which after they haue moistened in their gorge, and tempered it also with the warmth and natural heat of their stomack, they send forth and squirt out again when they meute, together with their dung, that giueth vnto it a vertue of fecunditie, and so lay it vpon the soft beds of tree leaues, which many a time the winds catch and driue into some cliffs and cranies of the barke, by means whereof, wee haue seene a Cherrie tree vpon a Willow, a Plane tree vpon a Lawrell, a Lawrell vpon a Cherrie tree: and at one time Berries and fruits of diuerse sorts and sundry colors hanging at one and the same tree. It is said moreouer, that the Chough or Daw hath giuen occasion herof, by laying vp for store, seeds and other fruit in creuises and holes of trees, which afterwards sprouted and grew. From hence came the manner of inoculation or grafting in the scutcheon, namely, to cut out a parcel of the barke of that tree which is to be grafted, with a sharp knife made in manner of a thomaskers nail blade, and then to enclose within the said concavity, the eie or seed taken out of another tree with the said instrument. And in old times verily this was the only maner, of inoculation vsed in fig-trees and apple trees. *Virgil* teaches vs to open a concavity in the knot or joint of a bud that driueth out the barke, and within it to enclose the gem or bud taken out of another tree. And thus much for the grafting that Nature hath shewed.

But there is another way of grafting, which casualtie and chance hath taught. And to say a truth, this Maister hath shewed well neerer more experiments, now daily practised, than Nature her selfe. Now the manner of it came by this occasion. A certain diligent & painfull husbandman,

A man, minding to mound and empale his cottage round about with a fence of an hedge; to the end that the stakes should nor rot, laid a fill vnder them, of Iuie wood: but such was the vitall force of the said Iuie, that it took hold fast of the stakes and clasped them hard, inso much as by the life thereof, they also came to liue; and euident it was to the eye, that the log of Iuie vnderneath, was as good as the earth to giue life and nourishment vnto the stakes afore said.

To come then vnto our grafting, which we haue learned by this occasion: first, the head or upper part of the stock must be sawed off very euen, and then pared smooth with a sharp garden-hook or cutting-knife: which don, there offers vnto vs a two-fold way to perform the rest of the worke. The first is, to set the graffe or Sion between the barke and the wood: for in old time truly, men were afraid at first to cleaue the stocke; but soon after they ventured to bore a hole into the very heart of the wood: and then they set fast into the pith iust in the mids thereof, but one Sion or graffe, for by this kind of grafting, impossible it was that the said pith should receiue or beare any more. But afterwards they deuised a finer and more subtil inuention to graffe, by cleauing the stocke gently thorough the mids, and after this manner they might well set into it six imps or Sions at once: as being perswaded, that by such a number they might supply the defect of any, if they chanced to die or miscarry any way. Now when the said clift was made, they held it open with a wedge of wood put between, vntill such time as the impe or graffe being thwitted thin and sharp beneath were set handsomely close within the rift. In the practise of which feat, many points are to be obserued: first and foremost, it would be considered, what trees will thus fort together and be vnited; namely, what stock will beare this maner of engraffing, and of what tree an impe or Sion will agree well to be set into it: for be ye sure of this, all trees are not alike, neither haue they all their sap in one and the same part. Vines and Fig trees are drier in the mids of the tree, than in the head, and toward the top they are more apt to take and conceiue, and therefore from thence it is good to make choise of imps to be grafted. Contrariwise, the sap of Oliues is most firm about the mids, and from thence they afford Sions; for the tops are drie. Moreouer, soonest of all other doe those trees incorporate one into another, if when the stock and graffe haue barks both of one nature, if they blossom together at one time, if they bud and put forth their spring at the same season, and last of all, if their saps doe agree one with another. On the other side, long it wil be ere they take, when the stock is drie and the graffe moist; or when the barke of the one is tender, and of the other tough and hard.ouer and besides, carefull heed must be taken in this businesse, That the stocke be not clouen in a knot; for the churlish hardnesse thereof will not willingly receiue and entertaine a guest, that choise also be made of the smoothest and fairest place in the stocke, where the graffe would be set: Item, That the clift be not aboue 3 fingers deepe; that it be streight and direct; and lastly, that the impe stand so close barke to barke in the socket, that a man may not see between it and the stocke. *Virgil* will in no wise haue a Sion or graffe to be taken from about the top of a tree, for such are all naught. But this one thing is generally held for certain, That the good imps to bee grafted are those, which be gathered from those armes of the tree that regard the Sun-rising in summer: Item, That all such graffs come from the boughs that beare well: also that they be new tender shoots of the last yeare (vnlesse they are to be grafted in the stock of an old tree, for then there should bee chosen such as are stronger:) moreover, this is to be regarded, that they be well budded, yea and knotted too, making shew and giuing good hope euen then, that they would beare fruit the same yere, but in any wise the same ought to be of 2 yeres growth at least, and not smaller beneath toward the stocke than a mans middle finger. As for the graffes, the manner is to set them in the stocke with the lesser end downward, when our purpose is, that the tree should spread rather in breadth, than run vp in height. Aboue all, it would be looked wel to, that they be neat and bright, so as they shine againe; that no part of them be seene either scorched drie with the sunne, or cicatrized (as it were) and blistered. Good hope there is that the graft will take, if the pith or marrow of the sion do fall jump with the joynt, so as it ioyne close to the wood and inner barke of the mother stocke: for this is farre better than to let it meet iust and euen with the bark without forth. Moreouer, a carefull eie must be had in thwitting and sharpening the graffe or imp, that the heart or woody substance be not stript all naked and left bare: howbeit gently and with a light hand a man must go ouer it with a fine and sharp instrument, in such sort, as it may go downe into the clift wedgewise, no deeper than 3 fingers bredth: the which may right easily be don, if it be shauen and pared presently after it hath bin dipped

in water. Moreouer, wee ought be well aduised, that wee sharpen not the end of a graffe in the wind, and that the barke goe not either from it or the stock. As for the graffe it selfe, it must be driuen downe into the clift, close to the shoulder where the owne barke goeth round, and from whence you began to sharpen it: but take heed in thrusting and forcing therof, that it stand not out of joynt, ne yet that the barke thereof turne vp in wrinkles: and therefore chosen they would not be which are ouer moist, no more (I assure you) than those that be too drie, for as the excessive humiditie of the one looseth the rind, so the want of vitall moisture in the other, will not suffer it to vnite & conorporat.ouer and besides, in the working of this feat, men obserue a certain religious reuerence, namely, that the fions be set into the stocke when the moone is croissant (to wit, before the full) and with both hands forsooth, or els all is marred: and otherwise in this businesse there is an opinion, that two hands together are put to smaller streffe, and haue better stay of themselves than one alone, and therefore such a moderation is right necessary: for the more forcibly the graffes be set into the stocke, and the faster that they are settled, the longer it will be ere they take to bear, but surer they be, and continue the longer: contrariwise, if they stand slacke, the tree indeed will the sooner beare, but last the lesse while. Furthermore, regard would be had in this case, as well that the clift of the stocke gape not too much (as being ouerwide for the graffe), as that it be not too little and ouer-streight, for feare that either it flurt it out againe, or clasp it and gird it so hard that it kill it quite. This principally we must take heede of at the first, that there be no spill or little chip left behind in the mids of the clift, nor any thing besides the graffe it selfe, to fill vp the place. Some there be, that enter the clift first in the stock, with a bill, and with an osier twig tie and bind vp the very brims or edges therof: which done, they driue the wedges in, to make such an ouerture as is meet, for by reason of the foresaid bonds, they need not feare the gaping of it too wide. Some stocks there be that the very same day that they be grafted in the nource garden, are without any harme remooued to the place where they must grow. If the stocke wherein you graffe be big and round, the best way is to fet the fion between the barke and the wood therof, and to diuide the one from the other with a wedge of bone, least in enlarging of the barke it channce to breake. In grafting of a Cherry tree stocke, the ouer rind or barke would be taken away before the clift be made. [Now these trees alone of all others may be grafted very well presently after mid-winter.] When the said rind is gone, you shall see therein a certain down, that if it channce to clasp about the graft, it rots the same incontinently. But to return again to our worke of grafting: After the wedge is taken forth whole and sound at the point (which is a token that no spill remains within) you may be bold to bind the head of the stocke all about. Yet this would be considered by the way (which I had like to haue forgotten) that the best & handfomest grafting, is as neer the ground as may be, in case the knots wil giue leaue and the stock beare it: also that the grafts would not conueniently stand without the stock about six fingers breadth. Now when al is done and sure work made (as hath been said) *Cato* willet vs to take cley, or the sandie grit of chalk, mixed together with oxen or cow shearn, to worke and temper all these together in maner of a tough past or cataplasme, and then to lay the same within the clift, & round about to daube all. And verily by this and other such rules which he hath left in writing, it appears plainly, that in those daies the manner was to graffe betweene the barke and the tree, and not otherwise: as also to fet the fions in the stocke, not about two fingers deepe. As for Apple trees and Pyries, he prescribeth that they should be grafted in the Spring; also 50 daies after the summer Sun-stead, and again after vintage: but Oliues and Fig-trees in the Spring only, obseruing the age and disposition of the Moon, when she is in the wane and thirtieth, that is to say, drie: moreover, after noonetide, and when no Southern wind doth blow. And I cannot chuse but wonder much at the curiositie and double diligence of *Cato*, who not content to haue defended the graft with clay or past aforesaid, yea and to preserue it with turfe and mosse against the iniurie of rain and cold, to haue bound it about also with little knitches of soft osier twigs sluied in twaine; must giue charge besides to couer it with Oxen-tongue (a kind of herb there is so called) *i. Buglosse*: and yet hee hath not done, but the same must be bound with wisps and wreaths of straw and litter aloft. Now aduaies men make no more adoe, but thinke it sufficient to stop and close vp barke and al, with earth or cley and chaffe tempered together, thinking it sufficient, the graft beare out two fingers breadth about. They that wait vpon the Spring season for to graffe, are many times driuen to their shifts for want of time, by reason that all trees make haft then to bud, and do break

out

A out of a sudden, vnlesse it be the Oliue, the oilers or eies wherof be longest while in coming forth, as hauing least sap of all other, running vnder the barke; the which if it were ouermuch would stiffe and choke the grafts. As for the Pomegranat and Fig tree, howsoeuer otherwise they seem to be dry, yet good it is not to defer and put off the grafting of them. The Peare tree may well enough be grafted with the blossom on the head, and it makes no matter if a man do stay and graffe it within the moneth of May. To be short, if a man be constrained to fetch his fions or imps of Apple trees, and such like, far off, it is thought that they will keepe their sap best, if they be stuck or set fast in a Rape root. Also if one would preserue them a certain time before they should be occupied, it is passing good to lay them close betweene two crest tiles, well stopped on euery side with earth, and that neere to some riuers or fish-ponds.

B CHAP. XV. ¶ The manner how to graffe a Vine tree.

A S for the cuttings or sets of vines, they may be kept wel a long time, couered all ouer with straw or litter in dry ditches; and afterwards they are to be laid within the earth, all hilled or couered, saue only that their heads be seen aboue ground. *Cato* graffeth a vine stock three maner of waies: First, he willet that the mother stock should be cut ouerthwart, & then clouen through the very pith or heart in the mids, wherein he would haue the yong imps (thwitted and sharpened as is before said) to be set and ingrafted so, as the marrow of the one and the other may ioyne and meet iust together. The second maner is, when two vine stockes doe reach one to the other, for to cut byas or allaunt (after the manner of a goats foot) two twigs or branches, of either one, with this regard, that these cuts be of a contrarie side the one vnto the other, and withall so deep, as that they come vnto the pith or heart: then to fit one to the other, ioyning pith to pith, and then binding them fast together so close, that no aire may enter between, vntill such time as the one hath adopted the other. The third deuise is, to bore holes in an old vine, not directly, but aslope, as far as to the pith; and then to put into them yong imps 2 foot long, and to bind them fast: which done, to make a certaine batter or mortar [with clay, beasts dung, and sand together] and therewith to dawbe the place: but with this regard, that the graft stand halfe vpright, or somewhat leaning. This manner of grafting hath bin checked and corrected of late daies by our countrymen, who leauing the hand-piercer, haue taken the French Vibrequin or brest-wimble, which gently and quickly boreth a hole, and hurteth not the wood: for all chafing heate caused by the said piercer, dulseth the vigor both of stock and imp. Also they haue deuised, that the said imp to be ingrafted, be gathered from the tree when it begins to bud or burgen: and when it is set into the stocke, that it be left standing out with no more than two eies or buds out of the grafting place; that it be well bound also with the winding rods of an Elme: moreover, that on either side of it the mother stock be slit or cut in two places on both sides, to the end that from thence rather than otherwise, the waterish humour may distill and drop forth, which of all things hurteth vines most. After all this, they would haue the said graffe remain bound, vntill such time as it haue put forth shoots two foot long; and then the foresaid bands to be cut in sunder, that they may burnish in thicknes and at ease accordingly. The season which they haue allowed for to graffe vines, is from the Equinoctial in Autumne, vnto the time that they begin to bud forth. Generally all trees that are tame and gentle

E may wel be grafted into stocks and roots of the wild, which by nature are dryer: contrariwise, graffe the wild and sauage kind vpon the other, you shal haue all degenerate and become wild. Touching other points belonging to the feat of grafting, all dependeth vpon the goodnesse or malignitie of the sky and weather. In sum, a dry season is good for all trees grafted in this manner: and say that the drought were excessive, there is a good remedie for it, namely, to take certain earthen pots of ashes, and to let water distill through them softly, by little and little to the foot of the stock. As for inoculation, it loueth small dewes otherwhiles, to refresh both stock; scutcheon, and Oiler.

CHAP. XVI.

F ¶ Of Emplastration or grafting with the Scutcheon.

T He manner of grafting by way of emplaistre or scutcheon, may seeme also to haue come from inoculation: and this deuise agreeth best with those trees that haue thick barks, as namely Fig trees. To goe therefore artificially to worke, the mother stocke or tree to be grafted,

Y y 2

grafted, must be well rid and clenfed from the branches all about the place where you mean to G
practife this feat, becaufe they fhould not fuck the fap from thence; and chufe the neateft and
firmest part, which seems most fresh and lively: then cut forth a fcutcheon of the barke [but
be careful that your instrument pierce no farther than the bark, nor enter into the quick wood] which done, take from another tree the like fcutcheon of the bark, fauing the eye or bud there-
on, and fet it in the place of the other; but fo equall this must be to the place, and fo clofe ioy-
ned and vnited to it, that a man may fee no token at all or apparance in the ioynt, of any wound
or skar made, to the end, that presently they may conorporat, that no humor of the fap may if-
fue forth, nor fo much as any wind get between: and yet to make fure work, the better way is to
lute it well and clofe with clay, and then to bind it fast. This deuice of grafting thus with the
fcutcheon was but lately found out, by their faying, that fauor all new and modern inuentions:
howbeit I find that the antient Greeks haue written thereof: yea and *Cato* also our own Coun- H
tryman, who ordained to graffe both Oliue and Fig tree in that order: and (as he was a man ve-
rie diligent and curious in all things that he tooke in hand) he hath fet downe the iust measure
and proportion of the fcutcheon; for he would haue the barke both the one and the other, to be
cut out with a chifell foure fingers long, and three in bredth, and fo to clofe vp all in manner a-
forefaid, that they might grow together; and then to be dawbed ouer with that mortar of his
making aforefaid: after which maner Apple trees also may be graffed.

Some there be who haue intermingled and comprehended vnder this kinde of grafting with
the fcutcheon, that deuice of making in the fide a cleft, and namely in vines; for they take forth
a little square piece with the bark, and then fet in an impe very hard & clofe, on that fide where
it is plain and euen, to the very marow or pith. Certes, neere to Thulix in the Tyburtines coun- I
try, I haue feen a tree graffed all these waies abouefaid, and the fame laden with all manner of
fruits: one bough bearing Nuts, another berries, here hung Grapes, there Figs; in one part you
fhould fee Peares, in another Pomegranats; and to conclude, no kind of Apple or other fruit,
but there it was to be found: many this tree liued not long. Howbeit, let vs vfe what diligence
we can, yet neuer fhall we able with all our experiments to attain vnto the depth of Natures fe-
crets. For some Trees there be that come vp of themfelues, and by no art and industry of man
will be made to grow: fuch also loue ordinarily to be in wild forests and in rough defarts; where
they prosper well; whereas the Plane tree wil beare all manner of grafting best of any other; and
next vnto it the wild and hard Oke: but both the one and the other corrupt and mar the tast of
what fruit foener is graffed thereupon. Some trees there be that refufe not to be ingraffed vpon K
any ftock, and what way foener they be graffed it skills not, as fig trees and Pomgranat trees. As
for the Vine it will not beare the fcutcheon, neither any Tree besides that hath a thin barke, or
which doth pill and rift: no nor fuch as be dry or haue fmall ftore of fap within them can away
with inoculation. Howbeit this maner of grafting is most fruitfull of all other; and next vnto it
that which is done by way of fcutcheon or emplaftre: yet trees fo graffed be of all others most
tender and feeble: as also fuch as reft and ftay vpon the bark only, are with the leaft wind that
is, fooneft difplanted and laid along on the ground. The fureft and ftrongeft way therefore is, to
graffe imps vpon the head of a ftocke, yea, and more plentifull by far, than to fow them of feed,
or plant them otherwife.

CHAP. XVII.

¶ An hiftorie fhewing the example and prooffe hercof.

I N this difcourfe and question concerning grafts, I cannot paffe ouer the rare obferuation of
one example, practifed by *Corellius* a Knight of Rome, borne at Atefte: This Gentleman of
Rome, in a ferme that he had within the territorie of Naples, chanced to graffe a Chestnut
with an imp cut from the fame tree: This graft tooke and bare faire Chestnuts and pleasant to
the tast, which of him took their name. After the deceafe of this gentleman, his heire (who had
bin fomme time his bondflaue, and by him enfranchifed) graffed the forefaid Corellian Chestnut
tree a fecond time: and certainly between them both was this difference, The former Corelli- M
an bare the more plenty, but the nuts of the other twice graffed were the better. As for other
forts of grafting or planting, mans wit hath deuifed, by obferuing that which hath fallen out by
chance: thus are we taught to fet broken boughs into the ground, when we faw how stakes pitched

A ched into the earth, tookeroot. Many trees are planted after that maner, and especially the Fig
tree, which will grow any way, faue only of a little cutting: but best of all, if a man take a good
big branch thereof, fharpnen it at the end in manner of a ftake, and fo thruft it deepe into the
ground, leauing a fmall head aboue the ground, and the fame couered ouer with fand. The
Pomegranate likewife and the Myrtles are fet of branches, but the hole fhould be made
eafie and large with a ftrong ftake or crow of iron. In fum, all these boughs ought to be 3 foot
long, fmaller in compaffe than a mans arme, fharpned at the one end, and with the barke faued
whole and found with great care. As for the Myrtle tree, it wil come also of a cutting; the Mul-
berry will not otherwife grow: for to couch and plant them with their branches, we are forbid-
den, for feare of the lightnings. And forasmuch as we are fallen into the mention of fuch cut-
tings, I must now fhew the manner of planting them also: aboue all things therefore regard
would be had, that they be taken from fuch trees as be fruitfull, that they be not crooked, rough
and rugged, nor yet forked; ne yet flenderer than fuch as would fil a mans hand, or fhorter than
a foot in length. Item, That the barke be not broken or rafed; that the nether end of the cut be
fet into the ground, and namely, that part alwaies which grew next the root; and laft of al, that
they be banked wel with earth about the place where they fpring and bud forth, vntil fuch time
as the plant haue gotten ftrength.

CHAP. XVIII.

¶ The manner of planing, ordering, and drefling Olive trees. Also which
be the conuenient times for grafting.

C HAT rules (by the iudgment of *Cato*) are to be obferued in the drefling and husbanding
of Oliues, I think it best to fet down here word for word, as he hath deliuered them.
Thus he faith therefore: The trunches or fets of Oliue trees which thou meaneft to
lay in trenches, make them 3 foot long; handle them gently and with great care, that in cut-
ting, fharpning, or fquaring them, the bark take no harm nor pill from the wood. As for fuch as
thou doft purpofe to plant in a nourefe garden, for to remoue again, fee they be a foot in length,
and in this manner fet them: Let the place be firft digged thoroughly with a fpade vntill it be
well wrought, lie light, and brought into temper: when thou puttest the faid truncheon into
D the ground, beare it downe with thy foot; if it goe not willingly deepe enough by that means,
drive it lower with a little beetle or mallet; but take heed withall, that thou rife not the barke
in fo doing. A better way there is, To make a hole firft with a ftake or crow, before thou fet it
into the ground, and therein mailt thou put it at eafe, and fo will it liue also and take root the
fooner: when they be three yeares old, haue then a carefull eye to them in any cafe, and marke
where and when the bark turneth. If thou plant either in ditches or furrowes, lay three plants
together in the earth, but fo as their heads may ftand a good way afunder aboue the ground;
also that there be no more feen of them than the bredth of foure fingers: or els, if thou thinke
good, fet the buds or eyes only of the Oliue. Moreover, when thou art about to take vp an oliue
plant for to fet again, be wary and carefull that thou break not the root: get as many fpuries or
E ftrings [called the beard] as thou canft, earth and all about them: and when thou haft fufficien-
ly couered thofe roots with mould in the replanting, be fure thou tread it downe clofe with thy
foot, that nothing hurt the fame.

Now if a man demand and would gladly know what is the fitteft time for planting oliues,
in one word I will tell him, Let him chufe a dry ground in feed time [i. in Autumne] and a fat
or battle ground in the fpring: furthermore, begin to prune thy Oliue tree 15 daies before the
Equinox in the fpring, and from that time forward for the fpace of forty daies, thou canft not
do amiffe. The maner of pruning or disbranching them, fhall be thus, Iooke where thou feelt
a place fertile, if thou fpy any dry or withered twigs, or broken boughs that the wind hath met
withall, be fure thou cut them away euerie one: but if the plot of ground be barren, care it vp
F better with the plough, take pains (I fay) to till it well, to breake all clots and make it euen, to
clenfe the trees likewife of knurs and knots, and to difcharge them of all fuperfluous wood: also
about Autumne bate the earth from about the roots of Oliues, and lay them bare, but in ftead
thereof put good mucke thereto. Howbeit if a man do very often labor the ground of an olive
plot, and take a deepe ftitch, he fhall now and then plough vp the fmalleft roots thereof, fo ebbe
Y y 3 they

they will run within the ground, which is not good for the trees; for in case they spread aloft, they will wax the thicker, and so by that means the strength and vertue of the Oliue will turne all into the root.

As touching all the kinds of Olive trees, how may they be; also in what ground they ought to be set, and wherein they will like & liue best; likewise what coast of the heauen they should regard; we haue shewed sufficiently in our discourse and treatise of Oile. *Mago* hath giuen order in his books of husbandry, that in planting them vpon high grounds, in dry places, and in a vein of clay, the season should be between Autumne and mid-Winter: but in case you haue a far, moist, or waterish soile, he sets down a longer time, namely from haruest to mid-winter. But this rule of his you must take to be respectiue to the clymat of Africk only: for in Italy at this day verily men vse to plant most in the Spring: howbeit if a man hath a mind to be doing also in Autumne, he may be bold to begin after the Equinox: for during the space of 40 dayes together, euen to the setting of the * Brood-hen star, there are no more but 14 days ill for planting. In Barbarie the people haue this practise peculiar to themselves, For to graffe in a wilde Oliue stock, whereby they continue a certain perpetuity: for euer as the boughs that were grafted, and (as I may say) adopted first, wax old and grow to decay, a second quickly putterth forth afresh, taken new from another tree, and in the same old stock sheweth yong and liuely; and after it a third successiue, and as many as need; so as by this meanes they take order to eternise their Oliues; inasmuch as one Oliue plant hath bin known to haue prospered in good estate a world of yeares. This wilde Oliue aforesaid may be grafted either with sions set in a cliffe, or els by way of inoculation with the scutcheon aforesaid. But in planting of Oliues this heed must be taken, that they be not set in a hole where an Oke hath been stocked vp by the root: for there be certain canker-wormes, called *Erucæ* in Latine; or *Raucæ*, breeding in the root of an Oke, which eat the same, and no doubt will do as much by the Oliue tree. Moreouer, it is found by experience better for Oliue trees, that their sets be not interred in the earth, nor yet dried, before they be planted. Also, the same experience hath taught, that for old Oliue trees, ouergrown with a kind of mossie skurfe, it is passing good, ech other yeare to scrape and claw them well, between the Spring and Equinox, and the rising of the starre *Vergilæ* or the Brood-hen: likewise to bestow mosse round about the root: many euery yere they would be digged round about the root and laid bare after the sunstead with a trench made two cubits broad, and a foot deep: as also once in three yeres it were not amisse to cherish them with good dung.ouer and besides, the same *Mago* saith, that almond trees ought to be planted between the setting of *Arcturus* and the shortest day in the yeare. As for Peare trees, they are not to be set all at one and the same time, for they blossom not all alike. They that beare either the long or round peares, haue their season from the occultation of the Brood-hen starre, vntill mid-Winter. All other sorts, and principally those that regard either the East or the North, are to be planted in mid-winter, namely after the retreat of the star called *Sagitta* [i.e. the Shaft.] The Lawrell would be put in the ground, from the Egle-star, vnto the fall of the Shaft aforesaid: for certainly the obseruation of the time, pertinent to the planting of trees, agreeth much what after this maner; and for the most part, men do accord and ordaine, That it should be done in the spring and Autumne especially. Another season there is about the rising of the Dog-starre, which few men rake knowledge of, because it is not so generally practised, nor found alike profitable to all countries: howbeit I must not ouerpasse it in silence, considering that my purpose is not to speake of this, or that countries disposition, but to search into the nature of all things. In Cyrenaica therefore, a region in Africk, they vse to set trees about the time that the Etesian Northerne winds do blow: in Greece likewise they do the same, and namely in Laconia they suppose that to be the best time for the Oliue tree: & in the Island *Cos* the maner is then to plant Vines also. In all other parts of Greece they make no doubt to inoculate and to graffe in that season; but in no wise will they plant whole trees then. But herein it skilleth much to consider the nature of each tract and regions: for in Egypt, they set, plant, and replant euery moneth of the yeare: in *Ethiopia* likewise, and India; and generally in all Countries wherefoeuer it raineth not in Summer. Setting these respects aside, Trees require of necessitie to be planted in Autumne. Like as therefore there be three seasons of planting Trees, so there are as many wherein they bud and put forth new shoots; to wit, the Spring, the rising of the Dog-starre, and the apparition of *Arcturus*. And verily this is a thing worthy to be noted; that not onely beasts

A beasts and other living creatures haue an appetite to engender, but the earth also, and all the plants thereupon, are much more lusty and hot that way. And therefore to make them to conueine in due season, the time would be well obserued, when they be as it were in loue, and desire the act of generation. And not onely in the earth and trees therein planted, is this to bee scene, but in grafts and stocks also particularly by themselves, since that they haue a mutuall and respectiue appetite, one to ioine and incorporate with the other. They that make choise of the Spring for this purpose, begin to put them as it were together for to ingender, presently after the Equinoctiall; giuing out in these plaine termes, that trees then are broody and ready to put forth sprouts, which is the reason, that their barks at such a time will knit and ioine together easily. But such as prefer the Autumne before the Spring, fall to this businesse immediatly vpon the rising of the star *Arcturus*; for then they suppose, that plants will take root forthwith, & by the time that the Spring is come, they will be better prepared to put forth lustily; considering that their vertue is not streightwaies spent in budding, but rather imploied in taking good root. Howbeit, some trees there be that haue their set times and seasons of the yere limited, whether it be to plant or to graffe: and the same indifferently in all places, as namely, Cherry-trees and Almond trees about the mid-winter. But for the most part, the scituation of the place will be able to guide and order all this matter best: for cold and waterish grounds ought to be planted in the Spring; but dry and hot in the Autumne. With our peasants here in Italy, it is ordinary to diuide their times and seasons for planting in this manner following. They set out for the Mulbery all the time from the Ides of February to the Spring Equinox: for the Peare-tree they allow the Autumne, and so forward till 15 daies before the point of mid-winter, and no longer; for Summer apples and quinces, for *Servises* likewise and plums, they assigne the space between the winter tropicke or Sun-stead, and the Ides of February. As for Carobes of Greece, and Peach-trees, they haue all the Autumne and the whole yere before them vntill mid-winter approach. All Nut-trees, as namely, Walnut trees, Pine-trees, Filberds, Hazels, and Chestnut-trees, would be planted from between the first day of March, and the 15 thereof. To conclude, the only time for willowes and broom, is about the Calends or beginning of the same March. But of these two last named, the Broom loueth to be set of Nource-plants, comming of seed, in dry and light grounds; but contrariwise, the willow to be set of twigs in moist places, according as we haue before said.

CHAP. XIX.

¶ What trees they be that loue to sort and keepe companie together. The skill, and feat of baring the roots of trees, and also of hilling or banking them about.

There is besides a new manner of grafting trees, which I will not ouerpasse: for my purpose is not willingly to omit ought, that I haue found in any booke as touching this argument. And *Columella*, as himselfe affirmeth, was the first deuiser thereof, namely, to conioin trees of diuers natures, and such as otherwise cannot abide societie and fellowship together, as for example, Fig-trees and Oliue trees. He, I say, would haue a Fig-tree to be planted nere vnto an Oliue, and so nere indeed, as that a bough or branch of the oliue may reach vnto the Fig-tree at ease, considering that it is very supple and pliable otherwise, and ready to follow and be led as a man would haue it, and yet as obedient as it is, hee would haue it it euer and anon to be handled and made gentle in the meane time, that by this meanes inured first, it may be bent and bowed to the purpose when the time serues. Which done, after that the Figge tree hath gotten some strength, and is growne to sufficient bignesse for to beare a graffe (which ordinarily is at three yeares end, or at the utmost when it is five yeares old) the head thereof must be cut or sawed off, and then the branch or bough of the Oliue before said, being well clenfed and made neat, and the head end thereof (as is before said) thwired and scraped sharpe, howbeit, not yet cut from the mother stocke, must be set fast in the shanke of the Figge-tree, where it must be kept well and surely tied with bands, for feare, that thus beeing forced and grafted arch-wise, it start and flirrt not out againe, and returne vnto the owne. Thus beeing of a mixt and meane nature, betweene a branch or bough growing still vnto the Tree, and yet laied in the ground to take new root and an Impe or Sion grafted, for the space of three yeares it is suffered to feed and grow indifferently betweene two mothers, or rather by the meanes thereof, two mother-Rockes

stocks are growne and vnited together. But in the fourth yeare it is cut wholly from the owne mother, and is become altogether an adopted child to the Fig-tree, wherein it is incorporat. A pretty deuise, I assure you, to make a Fig-tree beare Oliues, the secret whereof is not knowne to euery man: but I my selfe do conceiue and see the reason of it well enough.

Moreouer, the same regard and consideration aboue rehearsed, as touching the nature of grounds, whether they be hot, cold, moist, or dry, hath shewed vs also the manner of digging furrows and ditches. For in watery places it will not be good to make them either deep or large: whereas contrariwise, in a hot and dry soile they would be of great capacity, both to receiue and also to hold store of water. And verily, this is a good point of husbandry for to preferue not only yong plants, but old trees also: for in hot countries, men vse in Summer time to raise hillocks and banks about their roots, and couer them all therewith, for feare lest the extreme heat of the Sun should scorch and burne them. But in other parts the manner is to dig away the earth, and to lay the roots bare, and let in the wind to blow vpon them. The same men also in winter doe banke the roots about, and thereby preferue them from the frost. Contrariwise, others in the winter open the ground for to admit moisture, to quench their thirst. But in what ground, soeuer it be where such husbandry is requisite, the way of clesning tree roots, and ridding the earth from them, is to dig a trench three foot round about. And yet this must not be don in meadows, forasmuch as for the loue of the Sun, and of moisture, the roots of trees run ebbe vnder the face of the earth. And thus much verily may suffice in generall, for the planting and grafting of all those trees that are to beare fruit.

CHAP. XX.

Of Willow and Osier plots: of places where reeds and Canes are nourished: also of other trees that be vsually cut for poles, props, and stakes.

It remaineth now to speake of those trees which are planted and nourished for others, and for Vines especially: to which purpose, their wood is vsually lopped to serue the turne. Among which, Willows and Osiers are the chiefe, and to be placed in the formost rank: and ordinarily they loue to grow in moist and watery grounds. Now, for the better ordering of the Osier, the place would be well digged before, and laid soft two foot and a halfe deep, and then planted with little twigs or cuttings of a foot and a halfe in length, and those prickt in: or else stored with good big sets, which, the fuller and rounder they be in hand, so much better they are for to grow, and sooner will they proue to be trees. Betwene the one and the other, there ought to be a space of six foot. When they are come to three yeares growth, the manner is to keepe them downe with cutting, that they stand not aboue ground more than two foot, to the end that they might spread the better in bredth, & when time serues be lopped & shred more easily, without the help of ladder: for the Withie or Osier is of this nature, that the nearer it groweth to the ground, the better head it beareth. These trees also, as wel as others, require (as men say) to haue the ground digged & laid light about them euery yere, in the month of April. And thus much for the planting and ordering of Osier willows, which must be employed in binding and winding. As for the other willow, which affordeth big boughs, for poles, perches, and props, those may be set likewise of twigs and cuttings, and trenched in the ground after the same manner. These lightly euery fourth yere will yeeld good poles or stakes, & for that purpose would they then be ordinarily cut and lopped. If these trees become old, their boughs by propagation may still maintain and replenish the place, to wit, by couching them within the ground; & after they haue lien so one yere, and taken root, by cutting them clean from the stocke-father. An Osier plat of one acre stored thus, will yeeld twigs sufficient for windings and bindings, to serue a vineyard of fise and twenty acres.

To the same purpose men are wont to plant the white poplar or Aspe, in manner following. First, a piece of ground, or a quarter, must be digged and made hollow two foot deep: and therein ought to be laid cuttings of a foot and a half in length, after they haue had two daies drying: but so, as they stand one from another, a foot and a handbreadth, & be couered ouer with mould two cubits thick.

As touching canes and reeds, they loue to grow in places more wet and waterish than either the Willows and Osiers abouesaid, or the Poplars. Men vse to plant their bulbous roots, which

A some call their oillets or eies, in a trench of a span depth: and those two foot and an halfe asunder. These reeds do multiply and increafe of themselves (if a plot be once planted with them) after the old plants be extirped & destroyed. And surely, this is found now adaies to be the better and the more profitable way, euen to commit all to Nature, rather than to gield and weed them out where they seem to grow ouer thick, as the practise was in old time: for the manner of their roots is, to creepe one within another, and to be so interlaced continually, as if they were twisted together: The fit and proper time to plant and set these canes or reeds is a little before the calends of March, to wit, before the oillets or eies abouesaid begin to swell. They grow vntill mid-winter, at which time they wax hard, which is a signe that they haue done growing: and this is the only season also for to cut them. Likewise, the ground would be digged about them, as often as vines. The order of planting them is two manner of waies, for either the roots be laid ouertwhart or acrosse, and but shallow within the ground (and look how many eies there be in the root, so many plants wil spring aboue the earth: or els they be pitched down-right, within a graue or trench of a foot depth, so as there be two eies or buds vnder the ground, & the third aboue, but close and meet with it: but this caueat is to be giuen, that the head thereof may bend forward toward the earth, for feare that it drinke in any dew, which might stand and settle vpon it. This also is obserued, that they be cut euer in the wane of the Moone: as also, before that they are imploied about Vineyards for to beare vp vines, they would haue a whole yeares drying, for such are more profitable than the Greene.

The best staies to beare vp Vines, are made of the Chestnut-tree: for why? the wood is gentle and tractable, tough withall, and induring long: besides, it hath this property, that cut it when you list, it will spring againe more plentifully than any willowes. It loueth to grow in a gentle and sandy ground, but principally, if the same stand vpon a moist grauell or a hot earth full of little pebbles, and namely, where there is good store of such soft stones, as will soone crumble into grit: neither makes it any matter how much the place be shadowed, nor how cold and exposed to the Northern winds, for such it liketh well enough, yea, although it be the side or hanging of an hill, as bleake and cold as may be. But contrariwise, it may not abide the red French earth, the chalkie or marle ground, nor in one word, any that is battie or fruitfull. Set it is of a Nut, as we haue before said: but it commeth not vp, vlesse there be fise in a heape piled together, and those of the fairest & biggest sort. Moreouer, the plot wherein you mean to haue Chestnuts grow, must be ouertly broken vp aloft, from between Nouember and Februarie: in which time the Nuts vse to be loose, and to fall of themselves from the tree, and spring vnderneath, finding the ground light and hollow vnder them. Betwixt each heape set in manner aforesaid, there ought to be a foot space euery way, and the trench wherein they be set, of a span depth: out of this plot, as out of a seminary and nource-garden, these yong plants are to be translated into another, and then they must be set two foot asunder. Howbeit, they ought to be aboue two yeares old first, before they be remoued and replanted. Moreouer, a man may increafe Chestnut-trees by propagation, to wit, by couching and trenching the branches therof, as they grow to the mother: and there is not another tree againe that sooner taketh that way, than it doth; for the root thereof being laid bare, the whole branch must bee interred along in the trench made for the purpose, leauing out the end only aboue ground. Thus shall you haue one tree spring from it, and another from the root. Howbeit, planted in this wise, it loueth not to be transplanted, it cannot lodge elsewhere; but dreadeth and hateth all change of soile: and therefore such plots of ground as do afford coppises of Chestnut trees, are stored with plants comming of marrons or nut-kernels, rather than quicke-sets or plants set with the root. For the ordering and dressing of them, there is no other labour required, than the others before rehearsed; namely, for the two first yeares insuing to dig the ground loose about their roots, and to proue or cut away the superfluous twigs: for euer after they will shift well enough, & manure themselves, by reason that their owne shade will kill those superfluous water-shoots that spring out either from the root or the sides of the tree. A coppise of these trees is cut ordinarily within euery seuenth yere: and one acre of them will yeeld props enough for to serue a vineyard of twenty acres: for besides that one pole of them will abide to be clouen and make two props apeece, they will last very well vntill the next fall of the wood or coppis be past.

Moreouer, the Mast-tree called Esculus, is planted and commeth vp in like sort: howbeit, passing vntoward and vnwilling they are to grow, and therefore they stand ten yeares at least before they

they be cut and lopped. Set Acoms of this tree Esculus wherfoeuer you please, they wil surely G take and come vpp: but the trench must be a span deep, and the Acoms two foot asunder. And foure times a yeare are they to be lightly raked and clenfed from weeds. A forke or prop made of this wood, lasteth very well and rotteth not: and in very truth, the more that the tree it selfe is cut and mangled, the better it springeth and putteth forth new shoots.

ouer and besides these trees abouenamed, there be others that vse to be cut and lopped for Vine props and staies, to wit, the Ash, the Bay tree, the Peach and Hazell tree, yea, and the Apple tree: but these are all of them laterward and slow of growth: neither will they indure so well without rotting, if they stand any time in the ground, and much lesse will they abide any we: But on the othe side, the Elder tree of all others is most firme for to make poles and stakes of. It wil grow of sions and imps euen as the Poplar: As for the Cypresse tree, we haue of it spoken H sufficiently already.

CHAP. XXI.

¶ The manner and skill of husbanding and dressing Vineyards.

NOW that we haue treated sufficiently of the instruments, furniture, and tackling as it were belonging to Vineyards, it remaineth to speake of the nature of vines, and to deliuer with especial regard the manuring and dressing them. According therefore as wee may see in Vines and some other trees, which haue within them a spongy matter and light substance, their twigs and branches do containe a kind of marrow or pith inclosed between certain knots or joints wherewith their stalkes are diuided and parted. As for the fistulous concavities, they are but short all of them, and toward the top shorter and shorter, but euermore betweene two knots, they inclose the joints aforesaid. Now this marrow, this vegetatiue and vitall substance, I say (call it whether you wil) runneth forward, stil on end al the length of the hollow ke or pipe so long as it findeth no resistance by the way: but meeting, once with a joint or hard knot which maketh head vpon it, not suffering the same to passe forward, it beeing driuen backe, returneth downward: howbeit, in that reuerberation, breaketh out vnder those knots, and putteth forth certaine wings or pinnions like arme-pits, whereas the buds or leaues doe come; but alwaies in alternatiue course, one of this side, another of that, after the maner of reeds, canes, and fennell-geant, as hath bin shewed before, in such wise, that if one wing rise forth at the bottome of the lower knot on the right hand, another springeth for it on the left hand in that next above it; and thus they keep order the whole length of the branch. These sprouts when they are come once to some bignesse, and do branch there, be called of the Latines by a pretty name, Gemme, as it were precious stones: but so long as they are no other than buds sprouting forth vnder the concavity or pit-hole of the foresaid joints, they term them Oculos [i. Oilets or Eies:] marie in the very top they be named by them Germina [i. Sprigs or Burgeons.] After this order are ingendered the maine branches, the smaller * sprigs yearly cut away, the grapes, leaues, and yong tendrils of Vines. But hereat I wonder most, that the burgeons coming forth on the right side, be alwaies more tough and firm than those of the left. To come now vnto the planting of these vines: the shoots or branches must be cut iust in the midst between the foresaid knots or joints, L so as the marrow in nowise run out. And if you would plant fig-sets or sions, they ought verily to be a span long, and then to be prickt into the ground (but first there should bee a hole made with a little stake) with the greater end that grew next to the body of the tree downward: provided alwaies, that two oilets or buds stand aboue ground. Now these oilets are properly (in twigs or sets of trees) those buds called, where the new spring first shooteth forth. And herupon it is, that these sions or cuttings being set in nource-gardens, beare the same yere that very fruit which they would haue borne vpon the tree, if they had not been cut off: and namely, if they be set in the right season whiles they be plump and full: for hauing conceiued on the Tree, they do consummat the sad conception so begun, and are deliuered thereof elsewhere. And look what Fig-sets be in this manner planted, may be easily and without danger remoued and translated M the third yere after. For certes, as this tree of all others soon ageeth and indureth not long, so in recompence of short life, this one gift it hath of Nature, That it comes forward apace, quickly groweth to the full bignesse, and beareth fruit.

As for the Vine, there is not a tree that is planted more sundrie waies, nor affourdeh greater store

A store of sions or sets than it. For first and formost, nothing thereof is planted, but that which is vprofitable, hurtfull, superfluous, and of necessitie to be pruned and cut away. But in the pruning, this rule must be obserued, that those branches bee cut off which were portoirs, and bare grapes the yere before. The manner in old time was to plant or set a sion, headed (as it were) and taking hold on both sides of the old wood and hard stock: whereupon, because it was fashioned like a little mallet or hammer head, it was and is at this day called in Latine Malleolus. But afterwards they began to slip off a twig with a heele only of the old wood (as they vse to doe in a Fig-tree): & there is now a better way to make a Vine surely to take and liue than this. A third sort there is besides of sions or sets which are more readily gotten, without any such heele of the hard wood, and therefore they be wreathed and twined when they be set into the ground: B wherupon they be called in Latine Sagittæ [i. Shafts:] for the same sions only cut off and not wreathed, are named Trigemmes, as a man would say, twigs with 3 buds or spurts: & therefore of one and the same vine-branch, a man may in this sort make many kinds of sions or sets. Howbeit, that is to be noted, that if you set any yong sprigs that neuer bare fruit but leafe onely, the Vines coming thereof will be euer barren: and therefore none ought to be planted but such as are fruitfull. A vine-set or cutting, that hath joints standing thin, but here & there, is thought to be fruitlesse: but contrariwise, if it be set thick with buds, by all likelihood it will beare plentifully. Some are of opinion, that no sions should be put into the ground, but those that haue flowered already: also, that to set such cuttings as be called shafts, which haue no part of the old wood, is not so fit; for, that in remouing they are in danger to break whereas they were writen. C Now, when you haue gotten such sets as be meet for planting, let them be a foot long at the least, and carry fise or six knots, and at this length they cannot possibly haue fewer than three buds. Moreover, the best way is presently to set them the very same day that they be gathered. But in case a man be driuen to keep them long before they be put into the ground, great heed would be taken, according to the rule before said, that they be not laid aboue ground, that they dry not in the Sun; that they take no wind; nor loose their fresh vigor by cold. And if it chance that they lie out any while in the dry aire, they would be laied to soke in water many daies together, vntill they be refreshed and look green again, before they be set into the earth. The plot or quarter within the nource-garden or vineyard, ought to be wel exposed to the Sun, of a good largenesse, and sufficiently moulded: also, it must be well digged for 3 foot broad with a grubbing double toothed forke: then must you goe deeper and cast vp the earth with a broad spade D or shouell, after that the same hath bin broken vp with a mattocke or yron toole, carying foure foot in the head, so as the ditch may go two foot directly deep into the ground. Which done, the ditch is to be clenfed, & the mould to be spread abroad, & not left lying raw in that maner, but to take a kind concoction in the weather. And herein must the labourer proceed and be ruled by measure, and trie his worke thereby: for if the earth be not well delued, it will be soone found out by the vneuen balks or beds. There would be a iust measure taken also of the allies the sets aforesaid, which would be couched either in trenches made of purpose, or in long furrows; and then the finest and most delicate mould that can be found, is to be cast aloft. But all E this preuaileth not in a leane and hungry ground, vnlesse fatter earth be laied as a pallet vnderneath. Moreover, this is to be looked vnto, that two sets at the least be moulded and laied within the earth together in one range: also, they must be so couched, that they leane with their heads close vpon the earth next about them; yea, and with one and the same stake the said earth ought to be driuen close and fast about them. ouer and besides, throughout the whole plot or quarter of this nource-garden, regard is to be had, that between euery two sets there be a foot & an half one way, to wit, in breadth; and halfe a foot another way, to wit, forward in length. These plants being thus ordered, after they haue growne to twelue moneths, they should be then discharged of all their burgeons, euen to the nethermost knot, vnlesse haply it bee spared and let alone: for some there be that cut it also: after these, commeth forth the matter of the oilets, & shew them- F selues; and therewith at the third twelue month end the quick-set root and all is remoued to another place in the vineyard.

Besides all this, there is another pretty and wanton deuise, more curious ywis than needfull; to plant Vines, and namely, after this manner. Take foure branches of foure vines growing together, and bearing sundry kindes of grapes; bind them wel and strongly together in that part where

where they are most ranke and best nourished: being thus bound fast together, let them passe a-
long either through the concauitie of an Oxe shanke and maribone, or elsan earthen pipe or
tunnell made for the nonce. Thus couch them in the ground, and couer them with earth, so as
two ioints or buds be seen without. By this meanes they inioy the benefit of moisture, and take
root together: and although they be cut from their owne stocke, yet they put out leaues & branches.
After this, the pipe or bone aforesaid is broken, that the root may haue libertie both to
spread and also to gather more strength. And will you see the experience of a pretty secret: you
shall haue this one plant thus vnited of foure, to beare diuers and sundry grapes, according to
the bodies or stocks from whence they came. Yet is there one fine cast more to plant a Vine,
found out but of late, and this is the manner thereof: take a Vine-set or cutting, slit it along
through the midft, and scrape out the marrow or pith very cleane; then set them together again
wood to wood, as they were before, and bind them fast: but take heed in any case that the buds
or oilets without-forth be not hurt, nor rased at all. This done, put the same cutting into the
ground, interre it I say wel within earth and dung tempered together: when it begins to spread
yong branches, cut them off, and oftentimes remember to dig about it, & lay the earth light: &
certes, *Columella* holdeth it for certain, and assureth vs vpon his word, That the grapes coming
of such a vine wil haue no stonies or kernels at all within them. A strange thing and passing wonder-
full, that the very set it selfe should liue; and that which more is, grow and beare, notwithstanding
the pith or marrow is taken quite away.

Furthermore, since we are entred thus far into this discourse and argument, I cannot passe by
but I must needs speake of such twigs and branches of trees as wil knit and grow together euen
to a tree. For certain it is, that if you take fise or six of the smallest sprigs of box, binde them
together, and so prick them into the ground, they will proue and grow to one entire tree. How-
beit, in old time men obserued, that these twigs should be broken off from a Box tree, which ne-
uer had bin cut or disbranched, for otherwise it was thought verily they would neuer liue: but
afterwards this was checked by experience, and the contrary knowne. Thus much as touching
the order of Vine-plants, and their nource-garden for store.

It remaineth now to speake of the manner of Vineyards and Vines themselves. Where in the
first place, there offer vnto vs fise sorts thereof. For some traine and run along vpon the ground
spreading euery way with their branches: others grow vp right and beare vp themselves with-
out any staies. Some rest vpon props, without any traile or frame at all: others be born vp with
forkes and one single raile lying ouer in a long range: and last of all, there be vines that run vpon
trailes and frames laid ouer crosse-wise with foure courses of railes, in manner of a crosse dor-
mant. The same manner of husbandry that serues those Vines which beare vpon props without
any other frame at all, will agree well enough to that which standeth of it selfe without any
staies. For surely it groweth so, for default onely and want of perches and props. As for the vine
that is led vpon a single range as it were in one direct line, which they call *Canterius*, it is
thought better than the other, for plenty of liquor: for besides that it shadoweth not it selfe, it
hath the furtherance and help of the Sun-shine continually to ripen the grapes: it hath the be-
nefit also of the wind blowing through it, by which means the dew will not long stand vpon it.
Moreover, it lieth more handsome to the hand for the leaues to be plucked away, and for the
clods to be broken vnder it: & in one word, is readiest for all kind of good husbandry to be don
about it. But about all other commodities it hath this, that it is not long in the floure, but bloo-
meth most kindly. As for the frame aforesaid, that is ranged in one line a length, it is made of
perches or poles, reeds and canes, cords and ropes, or els lines of haire, as in Spaine and about
Brindis. The other kind of frame with railes and spars ouerthwart, beareth a vine more free, for
plenty of wine than the rest, and called this is *Compluviana vitis*, because it resembleth the hol-
low course of gutter tiles, that in houses receiue all raine water and cast it off. For as the crosse
dormant in building shutteth off the raine by foure gutters, euen so is this Vine led and caried
foure waies, vpon as many trailes. Of this Vine and the manner of planting it, we will only speak,
for that the same ordering will serue well enough in euery kind besides: marie there be far more
waies to plant this than the rest, but these three especially. The first and the surest is, to set the
Vine in a plot well and thoroughly delued: the next to it, is in the furrow: the last of all, in a
trench or ditch. As for digging a plot and planting therein, ynough hath been written already.

¶ Of furrowes and trenches wherein vines are planted: also of pruning vines.

IT sufficeth that the furrow or trench wherein a vine is to be planted, be a spade or shouels bre-
adth: but ditches would be three foot long euery way. Be it furrow, trench, or ditch, wher-
in a vine is to be replanted, it ought to be three foot deepe; and therefore no plant thereof
should be removed so litle, but that it might ouer and besides stand about ground, and shew
two buds at the least in sight. Needful it is moreover, that the earth be well loosened and made
more tender and gentle, by small furrowes ranged and trenched in the bottom of the ditch, yea
and be tempered sufficiently with dung. Now if the vineyard lie pendant vpon the hanging of
the hill, it requireth deeper ditches, and those raised vp well with earth and bedded, from the
brims and edges on the lower ground. As for such which shall be made longer, and able to re-
ceiue two vine-plants growing contrary one to the other, they shall be called in Latine, *Alvee*.
About al, the root of the vine ought to stand just in the midft of the hole or ditch; but the head
and wood thereof which resteth vpon the sound and firme ground, as neere as possible is, must
beare directly into the point of the *Aequinoctiall* Sun-rising: and withall, the first props that it
leaneth vpon, would be of Reeds and Canes.

As touching the bounding and limitation of a vineyard, the * principall way which runneth
freight East and West, ought to carry 18 foot in breadth, to the end that two carts may passe
easily one by another, when they meet; the other crosse allies, diuiding euery acre just into the
mids, must be ten foot broad: but if the plot or modell of the vineyard will beare it, these * allies
also which lie North and South, would be as large ful as the foresaid principal high way. More-
ouer, this would be alwaies considered, That vines bee planted by fises; (i.) that at euery fifth
perch or pole that shoreth them vp, there be a path diuiding euery range and course, and one bed
or quarter from another. If the ground be stiffe and hard, it must of necessitie bee twice digged
ouer, and therein quick-sets only that haue taken root, must be replanted: marie in case it be a
loose mould, light, and gentle, you may set very cuttings and sions from the stock, either in fur-
row or in trench, chuse you whether. But say it be a high ground and vpon the hill, better is it
to cast it into furrowes ouerthwart, than to dig it; that by this meanes the perches or props may
keep vp the ground better, which by occasion of raine water would settle downward. When
the weather is disposed to raine, or the ground by nature drie, it is good planting vine-sets, or si-
ons at the fall of the leafe, vnlesse the constitution of the tract and qualitie of a country require
the contrary: for a dry and hot soile would be planted in Autumne or the fall of the leafe, wher-
as a moist and cold coast may tarry, euen vntill the end of Spring. Let the soile be dry and hard,
bootlesse it will be to plant, yea though it were a very quick-set, root and all. Neither will it
do well to venter the setting of imps cut from the tree, in a drie place, vnlesse it be immediatly
vpon a good ground shower: but in low grounds, where a man may haue water at will, there is
no danger at all to set vine branches, euen with leaues on the head; for they will take well e-
nough at any time before the Mid-summer Sun-stead, as we may see by experience in Spaine.
When you will plant a vine chuse a faire day; and if possibly you can, let it be when there is no
wind stirring abroad; for such a calme season is best: and yet many are of opinion, that Sou-
thern winds be good, and they with for them, which is cleane contrarie vnto *Cato* his mind, who
expressly excepteth and reiecteth them. If the ground be of a middle temperature, there ought
to be a space of fise foot distance between euery vine: and in case it be a rich and fertile soile,
there would bee foure foot at least from one to another; but in a leane hungry piece of light
ground, there should be eight foot at the most: for whereas the *Vmbrians* and *Marsians* leaue
twenty foot void between euery range of vines, they doe it for to plough and sow in the place,
and therein they haue quarters, beds and ridges, called *Porculeta*. If the place where you plant
a vineyard be subiect to thicke and darke mists, or to a raine disposition of the weather, vines
ought to bee set the thinner: but in a drie quarter, it is meet they should bee planted thicke.
Moreover, the wit and industrie of man hath found out meanes to saue charges, and in setting a
nource-garden with vine-sions to goe a nearer way, with small expence and no losse of ground:
for in replanting a vineyard with quick-sets vpon a leuell plot, onely digged and laid euen,
they haue with one and the same labour (as it were by the way) replenished the ground be-
tweene

* *Decumanus*:
Limes

* *Cardines*

tween euery such rooted plants, with vine cuttings for store, so as the quicksets may grow in his owne place appointed, and the sion or cutting (which another day is to be transplanted) in the mean time take root between euery course and range of the said vine quicksets, before they be ready to take vp much ground. Thus within the compasse of one acre, by iust proportion a man may haue about 16000 quicksets. This is the difference only, that such beare not fruit so soon by two yeres: so much later are they that be set of sions, than those that were transplanted and remain still on foot. When a quick-set of a vine is planted in a vineyard, and hath grown one yere, it is vsually cut downe close to the earth, so as but one cie or button be left aboue ground, and one shote or stake must be stickt close to it for to rest vpon, and dung laid well about the root. In like manner ought it to be cut the second yere. By this means it gathereth strength inwardly, and maintaineth the same in such wise, as it may be sufficient another day to beare and sustain the burden both of branch and bunch, when it shall be charged with them: for otherwise if it be let alone and suffered to make haft for to beare, it would proue to be slender, vinewed, leane, and poore: for surely this is the nature of a vine, That she groweth most willingly: in such sort, that vnlesse she be kept vnder, chafised, and bridled in this manner (her inordinat appetite is such) she will run her selfe out of heart, and go all to branch and leafe.

As touching props and shotes to support vines, the best, (as we haue said) are those of the Oke or Oliue tree, for default whereof, ye may take good stakes and forks of Iuniper, Cypressse, Laburnum, and the Elder. As for those perches that be of other kinds, they ought to be cut and renewed euery yere. Howbeit, to lay ouer a frame for vines to run vpon; the best poles are of Reeds and Canes, for they will continue good fise yeres, being bound many of them together. When the shorter branches of a vine are twisted one within another in manner of cording or ropes, and strengthened with the wood of vine cuttings amongst, thereof archworke is made, which in Latine they call Funeta. Now by the time that a vine hath growne three yeres in the vineyard, it putteth forth apace strong branches, which in time may make vines themselves; these mount quickly vp to the frame: and then, some good husbands there be, who put out their eies, that is to say, with a cutting hook (turning the edge vpward) fetch vp the eies budding out beneath: thus by pruning, although they seem to do hurt and wrong vnto them, yet they draw them to shoot out the longer by the meanes: for in good faith, the more profitable way it is, thus to vse & acquaint it with bearing branches lustily; and far better and easier is it besides to cut away these yong imps as the vine lieth fast joined to the frame, vntill such time as a man think it be strong enough of the wood. Others there are, who in no case would haue a vine touched or medled withall, the next yere after that it is remooued into the vineyard; nor yet to feeble the edge of the cutting hooke, vntill it haue fise yeres ouer the head, many then they agree it should be pruned & gueldd of all the wood it hath, saue only three burgeons. You shall haue some againe that will indeed cut them the very next yere after they be replanted, but so as they may win euery yere three or foure ioints; and when they be foure yeres old and not before, they giue them liberty to climbe vpon the frame. But this (I assure you) is the next way to make the vine fructifie slowly and late: besides, it causeth it to seem scortched and full of knors, yea and to grow like a dwarfe or wreckling. The best simply, is to suffer the stocke or mother to bee strong first, and afterwards let the branches and yong imps hardly, be as forward and audacious as they will. Neither is it safe trusting that vine which is full of cicatrices or skarres (a thing that proceeds of great error and an vnskillfull hand;) for surely all such branches grow of hurts or wounds, and spring not one jot from the mother stock indeed: for all the while that shee gathereth strength, her whole vertue remaineth within her; but when she is suffered to grow and fructifie, she goeth throughly to worke, and emploiet her forces full and whole to bring forth that, which yereley shee conceiued: for Nature produceth nothing by halves nor by peece-meale, but is deliuered of all at once. Well then, after that a vine is once full grown and strong enough, let it presently run vpon perches, or be led in a traile vpon a frame; but in case it bee yet with the weakest, let it be cut againe, and take vp her lodging hardly beneath vnder the very frame: for in this point the question is not, what Age, but what Strength it hath: for that is it which must rule all. And verily great folly and rashnesse it were, to put a vine to it, and let her haue the will to grow ranke, before she be as big full as a mans thumb. The next yere after that it is gotten to the frame, there would be faued and let to grow one or two branches, according to the strength and ability of the mother: & let the same the yere following also be preferred, nourished,

A nourished, and permitted to grow on end, vnlesse her feeblenesse be against it: but when the third yere is come, and not afore, be bold to giue her the head with two branches more, and neuer let her goe but with foure at the most. In one word, hold a vine downe as much as you can, neuer cocker and cherish her, but rather repress her fruitfulnessse, for of this nature is the vine. Rather than her life, she would be alwaies bearing; neither taketh she such pleasure to liue long, as to beare much: and therefore the more you take away of her ranke and superfluous wood, the better will she employ her radicall sap and moisture to fructifie and yeeld good store of grapes: yet by her good will she would be euer putting forth branches for new plants, rather than busie in bearing fruit: for well woteth she, that fruit will fall and is but transitory. Thus to her owne vndoing and ouerthrow, while shee thinketh to spread and gaine more ground, shee spends her strength, her selfe and all. Howbeit, in this case, the nature of the soile will guide a man and aduise him well: in a lean and hungry ground, although the vine be strong enough, you ought to keep it downe with cutting, that it may make abode vnder the head of the traile and frame aboue, and howsoeuer shee may haue some hope that her young branches may get vp to the top, (as being at the very point to mount about it, and so neare as that they reach therevnto) yet let her stay there and proceed no farther: suffer her not (I say) to lay her head thereupon and couch vpon the traile, nor wantonly to spread and run on at her ease. In this manner (I say) hold her head in with the bridle, that she may in the end chuse rather to grow big in body & strong withall, than to shoot forth branches about her euery way far and neare. The same branch now that is kept short of the frame, ought to haue two or three buds to burgen at, and to bring forth more wood in time: and then let it be drawne and trained close vnto the traile and tied fast thereto, that it might seeme to beare vpon it and be supported thereby, and not to hang loosely thereupon. Being thus bound to the frame, it must likewise be tied anon, three buds or joints off: for by this means also the wood is reclaimed and repressed from running out in length beyond all measure, and the burgeons in the way between will come thicker & shoot vp on heighth, to furnish the husbandman with store of new sets and sions for the next yere. The very top end in no wise must be tied. Certes this property and qualitie hath the vine, That what part soeuer of it is dejected and driuen downward, or els bound and tied fast, the same ordinarily beareth fruit, and principally in that very place where it is bowed and bent in manner of an arch. As for the other parts which be backward and neerer to the old maine stocke, they send out store of new branches indeed, full of wood, but otherwise fruitlesse that yere: by reason (I suppose verily) of the spirit or vegetatiue life, and that marrow or pith whereof wee speake before, which findeth many stops and lets in the way. Howbeit these new shoots thus putting forth, will yeeld fruit the next yere. Thus there offer vnto vs two kinds of vine branches: for that which springeth out of the hard and old wood, and promiseth for that yere following nothing but sprigs and twigs onely, is called Pampinarium: whereas that which cometh more forward beyond the cup or cicatrice, and beareth shew of grapes, is named Fructuarium. As for another, springing from a yere-old branch, it is left alwaies for a breeder and kept short vnder the frame: as also that which they terme Custos, (i. the Keeper, or Watch:) a young branch this is, and no longer than it may well carry three buds: which the next yere is like to beare wood and repaire all, in case the old vine stocke should miscarry and spend it selfe by carrying too great a burden. Also another burgen there is close to him, bearing out like a knob, of the bignesse of a wart (called heis Furunculus) who must serue the turne and make supply, if peraduenture the foresaid Watch or Keeper faile.

Moreouer, a vine if it be suffered to beare before the seuenth yere after it was first set of a cutting or sion, decayeth sensibly and soon dieth: neither is it thought good to let the old wood run on still in length vpon the frame, as far as to the fourth forke that vnderproppeth it, (such old crooked branches some call Dracones, others Iuniculos) to make thereof huge and great trailes of vines termed Masculeta. But worst of all it is, to seeme for to propagate or draw in a long traile within the ground vines in a vineyard, when they be growne hard with age. When the vine is fise yeres old, a man may boldly wind and twine the very branches, so as out of euerie one there be a twig let to grow at liberty: thus he may proceed forward to the next, cutting away the wood as he goeth that bare before. The surer way euermore is supposed to leaue the Watch or Keeper behind; marie he must be next vnto the vines maine bodie, and nearest the root, and no longer than is before set downe. Now in case the branches proue ouer ranke, they

they must be writhed and twisted in maner aforesaid, so as the vine stock may put forth no more **G** than foure boughs at the most, or twaine if so be it rest vpon one chanter or range of perches. If you would order a vine so as it may stand alone without any props, at the beginning it would desire and haue some supporter or other (it makes no matter what) to rest vpon, vntill it haue learned to stand of it selfe, & rise vpright: afterwards, it is to be vsed in manner of all other vines when this training is past. This regard would be had in pruning and cutting the twigs of these vines called Pollices, That a man well guide and ballance his hand, and go euē withall in euery part indifferently, for feare lest one side be charged with fruit or branch more than the other: where by the way, he must also remember to keepe downe the head, and not suffer it in any wise to run vp in height: for if this kind of vine be aboue three foot high, it wil hang the head downward. As for others, they may well grow to fife foot and vpwārd, so that they passe not in any case the full height of a man. To come now vnto the other vines that creepe along and spread ouer the ground; they be inuironed all the way as they run, with pretty short hollow cages as it were, to rest and repose their branches in. They haue need moreouer of certaine trenches or ditches round about to run in, to the end that as the said branches wander too and fro, they should not encounter one another and strue together. And verily in most parts of the world, they vse to gather their vintage of vines thus growing low by the ground: as we may see the manner is in Africke, Ægypt, Syria, throughout all Asia, and in many places of Europe. For the good vsage and dressing of these vines, a speciall care would be had to keepe them downe close to the earth; and to fortifie the root, so long and in the same manner, as hath beene shewed before in those, that are shored or beare vpon frames, with this charge and regard besides, to leaue alwaies the short twigs only called Pollices, with three buds a peece, in case the ground be fruitfull, or **I** * fife, if it be light and lean. And in one word, better it is without all question, that they be left many, than long. As for those points which we haue deliuered heretofore, as touching the nature of the soile, they will be more effectually seen to proue either the goodnesse or the contrary, in the grapes of this vine, by how much nearer they lie to the ground than others. Wherein consideration is to be had of the sundry sorts of vines; namely, that they be seuered apart; and nothing is better, than to sort euery one with the tract or region that agreeth best with it, and therein to plant them accordingly: for these mixtures of diuers kindes are neuer good, but alwaies discordant: naught in old wines that come to our table, much worse then you may see sure, in those that be new and not yet tunned vp. But if a man will intermingle plants of sundry **K** vines together, yet in any case those would be ioined together (and none els) which ripen their fruit at one and the same time.

* Quintus, et
ther Vinis, &
twaine.

For frames and trailes wherein vines are to run, the better and more battle that the ground of the vineyard is, the plainer and euener that it lieth, the higher they would be from the ground; likewise if the place be subiect to dews, fogs, and mists, and nothing exposed to the winds: contrariwise, if the ground be leane and dry, hot, and open to the winds, they must be the lower and nearer the earth. As concerning the rafters, that lie ouer & reach from prop to prop, they ought to be tied and fastened thereto with as streight and sure a knot as is possible; whereas the Vine would be bound vnto them, but slacke. Of the sundry sorts of Vines, as also which were to be planted in this or that soile, and what coasts & climats each one of them loueth, we haue shewed sufficiently in the particular treatise of their nature, and of the wines that come of them. **L**

Touching all other points of husbandry that remaine behind; much doubt and diuers questions are made: for many there be that feare not all Summer long to bee digging in the vineyard about vine-roots, after euery little raine. Others again forbid to meddle & be lusty therein, in the budding time: for it cannot be auoided, but that the yong oylets will either bee smitten off clean, or els galled or bruiued one time or other, with their gate that go in and out between: which is the cause, that they would haue all kind of cattell to bee kept out that they come not neare, and especially such as beare wooll on their backs; for sheep of all others soonest rub off the buds as they passe by, with their shag coats. Moreouer, they are of opinion, that all manner of raking and harrowing, is an enemy to vines when they bee in their floure, and putting forth **M** young grapes: and sufficient it is (say they) if a vineyard be delued thrice in one yere; to wit, first from the spring Æquinox, to the apparition of the Brood-hen star; secondly, at the rising of the great Dog-star; and thirdly, when the grape beginneth to change colour and turne blacke. Others set out these times after this maner: if the vineyard be old, they would haue it once dig-

ged

A ged betweene vintage and mid-winter; howsoeuer some be of this mind, That it sufficeth them to bare the roots only of the vines and lay dung thereto. The second deluing they would haue to be from the Ides of Aprill, and six daies before the Ides of May, that is, before they begin to conceiue and bud: and thirdly, before they fall to blossom; also when they haue done flourishing; and also at the time when the grapes alter their hew. But the more skilfull and expert husbands affirme constantly, That if the ground be ouermuch laboured, and digged too often, the grapes will be so tender skinned, that they will burst againe. Moreouer, these rules following are to bee obserued, That when any vines do require such deluing and digging, the laborers ought to goe to worke betimes before the heat of the day: mary if the vineyard stand vpon a mirie clay, it is not good then either to eare or dig it, but rather to wait for the hot season; for the dust that riseth by digging, is very good (by their saying) both to preserve the vine and grapes from the parching Sun, and also to defend them against the dropping mists.

As for disburgening of vines, and clementing them of their superfluous leaues, all men accord; that it should be done once in the Spring; to wit, after the Ides of May, for the space of eleuen daies following, and in any hand before they begin to put forth floure. And how much thereof must be thus disoiled for the first time; euē all that is vnder the traile or frame, & no more. As for the second, men be not all of one minde; some would haue the leaues to be, disbranched when the vine hath done flourishing; others expect, vntill the grapes begin to be ripe. But as touching these points, the rules that *Cato* giueth, will resolute vs: for we are now also to shew the manner of cutting and pruning vines. Many men begin this worke immediately after vintage, when the weather is warm and temperat: but indeed (by course of Nature) this should neuer be done before the rising of the Ægle star (as we will more at large declare in the next booke, where we are to treat of the rising and fall of the fixed stars and of their influences) or rather in truth, when the Westerne wind Fauonius beginneth to blow, forasmuch as there might be danger in going ouer soon to work, considering that hast commonly maketh wast. For this is certain, that if there come an after-winter, and chance to bite the vines newly medicined (as it were) or rather sore with this pruning, if it happen (I say) that when euery man makes reckoning that winter is gon, it come vpon them againe and whiske with his taile, their buds pinched with cold will lose their vigor, their wounds will cleaue and make rifts, in such sort, that when the humidity is distilled and dropped forth, the oylets will be nipt and burnt away with the bitternesse of the vnseasonable weather, for who knoweth not, that in frost it is ticklish meddling with vines, and that they be in danger soon to breake and knap asunder? To say therefore a truth, by order of Nature there would not be such hast made. But here is the matter, they that haue a large domaine and much lands to look vnto, they that must go through a great deale of work, cannot wil nor chuse but begin betimes, and make this computation and reckoning aforesaid. And in one word, the sooner that vines be pruned (if the time wil serue commodiously) the more they run into wood and leaues; and contrariwise, the later you go to work, the more plenty of grapes they wil yeeld: and therefore it is meet and expedient to prune vines that be poore and feeble, very timely; but such as be strong and hardy, last of all.

As for the manner and fashion of the cut, it ought alwaies to be aslant, like a goats foot, that **E** no drops of raine may settle and rest thereupon, but that euery shower may soon shoot off: also that it turn downward to the ground, that it be euē and smooth made with a keen and sharpe edged bill or cutting hook. Furthermore this heed would be taken, that the cut be iust between two buds, for feare of wounding any of the oylets nere vnto that part which is cut off: and commonly this is supposed to be blacke and dusky, and so long as it is so seen, it ought to be cut and cut again, vntill you come to that which is found and cleare indeed: for neuer shall yee haue out of a faulty and corrupt wood, any thing come forth that will bee worth ought. If the vine be so poore and leaue that it affordeth no branches meet and sufficient to beare, cut it down to the verie ground, for best it is then to fetch new from the root, and to see whether they will be more liuely.ouer and beside in disburgening and desoiling a vine, you must beware how you pluck off those burgeons that are like to beare the grape, or to go with it, for that were the next way to supplant (as it were) the grapes, yea and kill the vine, vnlesse it were a new and yong plant. Will you then know which are vnprofitable and may be spared? euē all those are deemed superfluous, which are come not directly from the knot or neere oylet, but grow out of the side: and no maruell, since that the verie branches of grapes which hang in this manner out of

the hard wood, are so stiffe and tough also, that vnneth a man may plucke them off with his fingers, but had need of a knife or hook to cut them away.

As for the pitching of props into the ground, some are of opinion that the best way is to set them between two vines: and indeed that were the easier way to come about the vines, for to lay their roots bare when time serueth. Also, better it is far so to doe, in a vineyard where the vines run vpon one single traile, in case the said traile be strong enough, and the vineyard not subiect to the danger of winds: but where a vine runneth foure waies, it must be relieved with prop and stayes as neer as may be, to support the burden; yet so, as they be no hinderance when as men should come about the foot to lay the root bare: and therefore they would be a cubit off, and no more. Moreouer, this is a general rule, that a vine be clenfed about the root beneath, before that it be pruned aboue.

Cato treating generally of all maters concerning vines, writeth thus by way of rule and precept; Let your vine (quoth he) be as high as possibly you can: fasten it to the frame decently, but take heed you bind it not too hard. Dresse and order it after this manner: After you haue cut away the tips and tops therof, dig round about the roots, and begin then to eare vp & plow the vineyard: draw furrowes and ridges too and fro throughout. Whiles vines be yong & tender, couch the branches within the ground for propagation, with al speed: as for old vines, geld them as little as you can, & keep them with a good head; rather if need require, lay them along on the ground, and two yeares after cut them hard to the root. If it be a yong vine, attend vntill it be of strength sufficient; then will it be time and not afore to prune it. If haply the vineyard be bare and naked of vines, and that they grow but thin here and there, make furrowes and trenches between, and therein plant new quicksets: but rid the weeds well from about those Trenches, for ouershadowing them: be euer also digging and delving. Then, if it be an old vineyard, so drage and pulse for prouender: if it be a lean and light ground, sow nothing that bears grain or corn. Be sure that ye lay about the heads of the said quicksets, dung, chaffe, refuse of grapes pressed, and such like mullock. When the vine beginneth to put out leaues and look green, fall to disburgeoning. So long as the Vines be yong and tender, tie them surely in many places, for feare lest the wood or stalk therof do break asunder. But when a vine hath gotten head to perch aloft vpon a single traile, gently binde the tender burgeons and branches thereof, extend and stretch them out, and lay them streit. Now when they stand once vpright and are able to beare themselves, mark when the grapes begin to change colour, bind them wel and sure below.

As for grafting of vines, there are two seasons of the yeare meet therefore: the one in the spring, the other when the vine doth floure, and this is held for the best. If you purpose to translate an old stock of a vine into another place, and there to replant it, cut off the first thick arm only, leauing behind two buds and no more. In taking of it vp, be carefull that you do it with such dexteritie, as that you race not nor wound the root. This done, look how it grew before, so set it now, either in trench or furrow: couch it wel and close, and couer it thoroughly with good mould. After the same manner as is before said vnder set and prop it vp, bind it, turn and winde it; but aboue all be euer while digging about it. As touching the drage called *Ocymum*, the which *Cato* wills to be sowed in a vineyard, it is a kind of forage or prouender for horses, which the Latines in old time named *Pabulum*; it commeth vp very speedily and groweth fast, and besides can well away with shadowie places.

CHAP. XXIII.

¶ Of Trees ranged in reues for to support Vines.

It remaineth now in this discourse and treatise of Vines, to write of the manner of trees planted of purpose for to serue their turn. And here I cannot chuse but cal to mind, first, how this point of husbandry hath bin iudged naught, and altogether condemned by the two *Sarsennae*, both father and sonne; but contrariwise held for good, and highly commended by *Scrofa*: whereas all three were reputed the most antient writers, and skilfullest in this kind next to *Cato*. And yet *Scrofa*, as great a patron as he is thereof, alloweth not this deuice in any clymate else but only in Italy. Howbeit, gon this hath for currant many yeares past, and time out of mind, That the best and most dainty Vines came of those grapes onely which grew vpon such Hau-tins or trees before said. Yea, and it was thought generally, that the higher a Vine climbed vp-

H

I

K

L

On these trees, the better grapes it bare, and yeelded more commendable wine: and againe, the lower that those trees were, the greater plenty followed both of the one & the other. By which a man may see how materiall it is to raise Vines on high, and haue grapes growing in the top of trees. In which regard, choise also is to bee made of trees for this purpose. And here first and formost is presented vnto vs the Elme: and yet I must except that kind of it which is called *Antinia*, by reason that it is ouermuch charged with boughes and leaues, and therewith too full of shade. Next vnto it may be ranged the blacke Poplar, euen for the same cause, because it is not leaved nor branched so thick. Many men there be that refuse not the Ash, the Fig tree, yea and the Oliue, so that it stand not ouer thicke with boughs, and make too much shade. As for the setting, planting, and ordering of these trees in general, we haue sufficiently and to the full treated heretofore. But now for this speciall and peculiar vse that they be put vnto, this would bee considered, That Vines which are to be wedded to these trees, must in no wise feele the edge of the cutting hooke, before they be three yeares old full. After which time, this regard ought to be had, that euer second branch or arme thereof is to be spared, and likewise each other yeare and no oftener they are in this wise to bee pruned: and by that they are six yeres old, it is good time to ioin them in marriage vnto their husbands aforesaid.

In Piemont, Lombardie, and those parts of Italy beyond the riuer Po, they vse for this purpose to plant their grounds with these trees ouer and besides those aforesaid, to wit, the Cornell, the Opier or Wich-hazell, the Teil or Linden, the wild Ash Ornus, the Carpin Carme or Horn-beame, and the Oke. About Venice and all that tract, the Willowes serue the turne and none else, by reason that the whole foken standeth so much vpon water.

As touching the Elme, named in the first place, it must be kept plaine and bare, and the great water-boughs vnderneath shread vntill you come to the middest of the tree, or thereabout; and then the rest ought to bee arraunged and digested into good order, whereupon the Vine may climb as it were vpon staires or ladder rounds: and lightly none of these trees vpward be aboue twentie foot high. Now in case it be a high ground vpon an hil, and drie, they are permitted to branch and shut out their armes, within eight foot of the ground. But in plaines and low moist grounds, they begin not to fork before they bear twelue foot. Howbeit, let the place be what it wil, the flat of the tree from whence the boughs begin to diuide, ought to regard the south sun. And the said branches immediately from their project must rise somewhat vpright in maner of fingers, standing forth from the palm of ones hand, among which, the smal sprigs must estfoons be barbed (as it were) & shauen clean off, for feare they do not ouershadow the Vine branches.

As touching the space or distance between one tree & another, the ordinarie proportion is, that afront and behind, in case the ground be erable, it beare fortie foot: but aslanke, or on the side, twentie. Marie, if it be not well tilled and husbanded, so much wil serue euery way, to wit, twentie foot and no more. Commonly euery one of these trees maintaineth tenne Vines at the foot therof: and a bad husband he is who hath fewer reared about it than three. But by the way, it is no good husbandrie to suffer a tree thus to be coupled (as it were) in marriage to so many Vines, before that it be of sufficient strength to entertain them: for there is nothing so hurtfull, by reason that the Vines will choke and kill them; so quick they be of their growth, and so ready to ouercharge them.

As for planting of Vine-sets to the root of trees, needful it is to make therfore a ditch three foot deep; and they ought to be distant one from another a ful foot, and so much likewise from the tree. This don, there is no question thereof the smal twigs or shoots what to do with them: neither is there any charge or expence required for digging and deluing: for this is the manner of it, and this peculiar gift haue these tree-rows, That in the same ground where they grow, the sowing of corne is nothing hurtfull, nay, it is profitable and good for the Vines. Moreouer, this commoditie and easement commeth of their height, that they be able to saue themselves: neither is there any such need, as in other Vineyards, to be at the coast of walls, of mounds, pales, or hedges, ne yet of deep ditches or other fences, to keep off the violence or injuries of beasts. Of all other toiles before rehearsed, there is no more required but to looke vnto onely the getting of quick-sets, or couching fions: all the matter I say lieth herein, and there is no more to do.

But of couching fions and that kind of propagation, there be two deuises. First within paniers or baskets vpon the boughs of the tree, and that is the best way, because it is safest from the danger of cattel. The second is, to bend the Vine, or a branch therof, close to the foot of her

owne tree, or else about the next vnto it: if it stand single and haue no Vine joined vnto it. As much of this branch or Vine thus couched as is about the ground, must be kept with scraping; that is to say, the buds ought euer and anone to be knapt off, that it spring not forth. Within the earth there should be no fewer than foure joints or budding knots buried and entered for to take root; in the head without, two onely are left for to grow. [Where, note by the way, that the Vine which groweth to the foot of a tree, must be trenched in a ditch foure foot long in al, three in breadth, two and an halfe in deapth.] Now, when the sion thus couched, hath lien one yere, the order is to cut it toward the stock to the very pith or marrow, that so by little and little it may be inured to fortifie it selfe vpon the own roots, and not to hang and cling alwaies to the mother: as for the other end or head thereof, it would be cut off also so neere the ground, as that there be but two only buds left. By the third yere it must be quite cut in two, (where before it was but guelled to the pith) and that which remaines of it, laid deeper into the ground, for feare it should sprout forth and beare leaues toward that side where it was cut in twaine. This done, no sooner is Vintage past, but this new quicke-set, root and al, must be taken vp and replanted.

Of late daies deuised was the manner of couching or planting by a trees side a Vine Dragon (for so we vse to call the old branch of a Vine past all seruice, which hath done bearing many a yere, and is now grown to behard.) And verily, they vse to make choise of the biggest they can find, which when they haue cut from the stocke, they scrape and pil the bark, three foure parts in length, so farre forth as it is to lie within the ground [whereupon they name it in Latine Rasillis: when it is thus couched low within a furrow, the rest that is about the earth they rear vp against the tree. And it is thought, that there is not so good nor so ready a mean to make a Vine grow and beare than this. If it fall out so, that either the Vine be smal and weak, or the ground it selfe but lean and hungrie, it is an vsuall and ordinarie practise to cut and prune it as neer the ground as possibly may bee, vntill such time as it bee well strengthened in the root, as also, great regard is had, that it be not planted when the deaw standeth vpon it, ne yet when the wind sits full in the North. The old Vine stock it selfe ought to look into the Northeast, prouided alwaies that the yong branches turne Southward. Moreover, new and tender Vines would not be proined and cut in half: but better it is to expect and tary vntill such time as they be strong ynough and able to beare the cutting bill: meane while, to gather the yong branches together round in maner of an houpe or circle. [Where note by the way, That Vines which are erected vpon trees for the most part beare later by one yere than those in Vineyards that be peached or run on frames.] Somewould not haue them to be cut at all, before they haue raught vp to the top of the tree. At the first time when you come with the pruning hooke, the head must be cut off at six foot from the ground, leauing vnderneath one little top twig, which must be forced to beare by bending it downward in the head: and in the same, when it is thus pruned, there must be left behind three buds and no more. The branches which burgen out from thence, ought the next yere to bee brought vp to the lowest armes of the tree, and there seated: and so from yere to yere, let them climb vp higher to the vpper boughs, leauing alwaies vpon euery loft or scaffold as it were where they rested, one branch of the old hard wood, and another young imp or twig, for to grow vp and climbe as high as it will. Furthermore, as often as a Vine is pruned afterwards, those branches or boughs thereof in anywise must bee cut away which were bearers the yere before: and in stead of them, the new after they be first cleansed from all the hairy & curled tendrils on euery side shred off. The ordinarie manner of pruning and dressing of vines here about Rome, is to let the tender branches and sprigs enterlace the boughes, inso much, as the whole tree is ouerspread & clad therewith, like as the very same tendrils be also couered all ouer with grapes. But the French fashion is to draw them in a traile along from bough to bough: whereas in Lumbardie and along the causey Emilia [from Plaisance to Rimino] they vse to train them vpon forkes and poles: for albeit the Atinian Elmes be planted round about, yet the Vine commeth not neere their greene boughes. Some there be, who for want of sill and good knowledge about vines, hang them by a strong bond vnder the boughs: but this is to wrong, yea to stiffe and strangle them outright: whereas indeed a vine, as it ought to be kept down with oisier twigs, so it must not bee tied ouer streight. For which cause, euen they also who otherwise haue store & plenty ynough euen to spare, of willows & oisiers, yet chuse rather to bind vines with some more soft and gentle matter, to wit, with a certain hearb, which the Sicilians in their language

A language called Ampelodesmos [i. Vine-bind.] But throughout all Greece they tie their vines with Rushes, Cypèrus, or Gladon, Reeke, and sea-grasse.ouer and besides, the maner is otherwise to vntie the Vine, and for certain daies together to giue it liberty for to wander loosely, and to spred it selfe out of order, yea, and to lie at ease along the ground, which all the yere besides: it onely beheld from on high: in which repose it seemeth to take no small contentment and refreshing: for like as draught horses, when they be out of their geeres, and hakhies vnfaded, like as Oxen when they haue drawn in the yoke, yea, and greyhounds after they haue run in chase, loue to tumble themselves and wallow vpon the earth: euen so the Vine also, hauing bin long tied vp and restrained, liketh wel now to stretch out her lims and loins, and such easement and relaxation doth her much good. Nay, the tree it selfe findes some comfort and ioy therby, in being discharged of that burden which it carried continually as it were vpon the shoulders; and seemeth now to take breath and heart again. And certes, go through the whole course and worke of Nature; there is nothing, but by imitation of day and night, desireth to haue some alternatiue ease and play dayes between. And it is by experience found very hurtfull, and therefore not allowed of, to prune and cut Vines presently vpon the Vintage and grape-gathering, whiles they be still wearie and ouertrauelled with bearing their fruit so lately: ne yet to binde them, thus pruned, in the same place again where they were tied before: for surely vines do feel the very prints and marks which the bonds made, and no doubt are vexed and put to pain therewith, and the worse for them.

The maner of the Gaules in Lumbardy, in training of Vines from tree to tree, is to take two boughs or branches of both sides, and draw them ouer, in case the stock Vines that beare them be forty foot asunder: but foure, if they are but twenty foot distant. And these meet one with another in the space between, and are interlaced, twisted and tied together. But where they are somewhat weak and feeble, they be strengthened with Oisier twigs or such like rods here and there by the way, vntill they beare out stiffe: and look where they be so short that they wil not reach out, they are with an hook stretched and brought to the next tree that standeth without a Vine coupled thereto.

A Vine branch drawn thus along in a traile; they were wont to cut when it had growne two yeaeres: for in such Vine-stocks as by reason of age are charged with wood, it is the better way to giue time & leifure for to grow and fortifie the said branch that is to passe from tree to tree, so as the thicknes thereof will giue leaue: yea and otherwise it is good for the old main bough to feed still and thrue in pulp and carnositie, if we purpose that it should remaine and carrie a length with it.

Yet is there one maner besides of planting and maintaining Vines, of a mean or middle nature between couching or interrering a branch, by way of propagation, and drawing them thus in a traile from one to another: namely to supplant, that is, lay along vpon the ground the whole stock or main body of a Vine; which done, to cleaue it with wedges, and so to couch in many furrowes or raies, as many parcels thereof, comming all together from one. Now in case each one of these branches or armes proceeding from one body, be of it selfe small, weak and tender, they must be strengthened with long rods like stauces bound vnto them round about; neither ought the small sprigs and twigs that spring out of the side, be cut away.

The husbandmen of Novaria rest not contented with a number of these trailed branches, nor with store of boughs and trees to sustaine and beare them, vnlesse they be shored and supported also with posts and ouerthwart railes, about which the yong tendrils may creep & wind. No manuell therefore if their wines be after a sort rough, hard, and vnpleasant: for besides the badnesse of their soile, the maner of their husbandry is so crooked and vntoward.

Our husbandmen moreover here about vs, neer vnto the city of Rome, commit the like fault, and find the same defect thereupon, in the Varracine Vines, that be pruned but once in two yeres: a piece of husbandry by them practised, not for any good that it doth vnto the vine, but because the wine thereof is so cheap, that oftner pruning would not quit cost, neither doth the reuenue answer the labor and the charges.

In the territorie of Carseoli (a champion and plain countrey about Rome, the peafants take a better order, and hold a middle and temperat course. For their maner is to proin and cut away from the Vine those parts onely that are faulty and rotten, when they begin once to drie and to wither, leauing all the rest for to beare Grapes: and thus discharging it of the superfluous burden

burden that it caried, they hold opinion, that it is not good to wound it in diuers places: for by this means (say they) it will be nourished and come on very well. But by their leaue, vnlesse the ground be passing rich and fat, Vines thus ouercharged with wood, will for want of pruning degenerate into the bastard wild wines called Labrusca.

But to returne againe vnto our plots planted with Trees and Vines coupled together: such grounds when they be plowed require a good deep fitch, although the corn therein sown need it not. Also it is not the manner to disburgen or deffoile altogether such trees, and thereby a great deale of toile and labor is sau'd: but when the Vines are a pruning, they would be disbranched at once with them, where the boughs grow thickest; and to make a glade onely throw, the superfluous branches would be cut away, which otherwise might consume the nutriment of the grape. As for the cuts and wounds remaining after such pruning and debranching, we haue already forbidden, that they should stand either against the North or the South. And I think moreouer it were very well, that they did not regard the West where the Sunne setteth: for such wounds will smart, and be long sore, yea, and hardly heale again, if either extreme cold pinch, or extreme heate parch them.

Furthermore, a Vine hath not the same liberty in a vineyard that it hath vpon a tree: for better means there are, and easier it is to hide the said wounds from the weather flanked as they be within those close sides; than to wryth and wrest them to a mans mind to & fro. In lopping and shredding of trees, when the cut standeth open, there would be no hollow places made like cups, for feare that water should stand therein. Last of all, if a Vine be to climbe Trees that are of any great height, there would be stayes and appuies set to it, wherupon it may take hold, and so by little and little arise and mount vp aloft.

CHAP. XXIII.

¶ *The manner of keeping and preserving Grapes. Also the maladies whereto Trees be subiect.*

It is holden for a rule, That the best Vine-plants which run vpon a frame of rails, ought to be pruned in mid-March about the feast of *Minerva*, called *Quinquatrus*: and if a man would preserve and keep their grapes, it would be done in the wane of the Moone. Also, that such vines as be cut in the change of the Moon, wil not be subiect to the iniurie and hurt of any noisom vermin. Although in some other respect men are of opinion, that they should be cut in the night, at the full of the Moon, when the signe is in Leo, Scorpio, Sagittarius, and Taurus: and generally it is thought good to set them when the Moon is at the full, or at leastwise when she is croissant. Moreouer, this is to be noted, that in Italy there need not about ten men for to look vnto a vineyard of an hundred acres.

And now that I haue discoursed at large as touching the manner of planting, grafting, and dressing of Trees, I purpose not here to treat again of Date Trees & Tretrifoly, whereof I haue sufficiently written already in the Treatise of strange and forein Trees: but forasmuch as my meaning is to omit nothing, I will proceed forward to decipher those matters which concerne principally the nature of Trees, and namely their maladies and imperfections, whereto they also as well as beasts and other liuing creatures, are subiect. And to say a truth, what creature is there vnder heauen freed therefrom? And yet some say that wild and sauage trees are in no such danger: only the hail may hurt them in their budding and blooming time. True it is also, that scorched they may be otherwhiles with heate, and bitten with cold black winds, coming late and out of season: for cold weather surely in due time is kindly and good for them, as hath bin said before. But let me not forget my self. See we not many times the cold frost to kill the very Vines? Yes verily: but this is long of the foile and nothing else; for neuer hapneth this accident but in a cold ground. So as this conclusion holdeth still, That in winter time we alwaies find frost and cold weather to do much good: but we neuer allow of a cold and weak ground. Moreouer, it is neuer seen, that the weakest and smallest trees are indangered by frost, but they are the greatest and tallest that feeble the smart. And therefore no maruel if in such, the tops being nipped therewith, seem first to fade and wither; by reason that the natie and radical moisture being bitten and dulled before, was neuer able to reach vp thither.

Now concerning the diseases that haunt Trees: some there bee that are common vnto all; others

A others againe, that extend peculiarly to some certaine kind or other. As for the former sort generally it is, that no trees are exempt from the worme, the blasting and the joint-ach. Hereof it cometh, that we see them more feeble and weak in one part or member than in another; as if they did participate the maladies and miseries of mankind, so common are the names of diseases vnto them both. For certes, we vse to say, indifferently, That trees are headlesse, when they be dopt and ropt, as well as men who are beheaded: we reame their eyes to bee enflamed, sendged, and blood-shot, when their buds be blasted: & many other infirmities, according to the like proportion: And therupon it is, that we say they be hungerstarved and pined, and contrariwise, that they be full of crudities and raw vndigested humors, namely, when moisture aboundeth in them. Yea, and some of them are said to be grosse and ouerfat, to wit, al such as bear rosin; when by the means of too much greafe (as it were) they begin to putrifie and turn into Torch-wood; yea, and it falleth out, that they die withall, in case the said greafe take once to the roots; euen as liuing creatures being ouergrowne with fat. Moreouer, ye shall see a kind of pestilence light amongst one peculiar kind of trees: like as it fareth somerimes with men in sundrie states and degrees: whereby one while slaues only die of a plague, another while the Commons, and those either artificers in a citie, or peasants and husbandmen of the countrey.

Now as touching the Worme, some trees are more subiect vnto it than others: and to say a truth, in manner al, more or lesse; and that, the birds know well ynough, for with their bills they will job vpon the barke, and by the sound trie whether they be worm eaten or no. But what say we to ounglutons and belly gods in these daies, who make reckoning among their dainty dishes, of wormes breeding in trees; and principally of those great fat ones bred in Oaks, which wormes they call *Cossi*, & are esteemed a most delicat meat? These forsooth they feed in mue, and franke them vp like fat ware, with good corn-meale. But about al others, Pear trees, Apple trees, and Fig trees, are soonest worme-eaten: and if any trees escape, they be such as are of a bitter wood in tast, and odoriferous in smell. Touching those wormes that be found in Fig trees, some are engendred of themselves, and of the very wood: others are bred of a bigger vermine called *Ceraustes*. Howbeit, al of them (which way soeuer they come) are shaped in manner of the said *Ceraustes*, and make a certaine small noise like the shrill and creaking sound of a little criquet. The Seruise tree likewise is haunted and plagued with little red and hairie wormes, that in the end doe kill it. The Medlar trees also when they be old, are subiect to this maladie.

D As for the misliking of trees [called *Sideratio*] wherby they consume, wither away, & crumble to powder; it is a thing caused only of the weather and influence of some Planet. And therefore in this ranke are to be ranged Haile, Blasting with some vntoward winds; and frosts that bite and nip them to the heart. And verily it falleth out, that in a mild and warme Spring, when plants bee too forward, and put forth their soft buds and tender sprouts ouer-soone, the black wind taketh them on a suddaine, and a certaine rime setteth thereupon, sendging and burning the oilers of the Burgeons, whiles they be full of a milky sap: which accident if it light in blooming time vpon the blossome, is called properly *Carbunculus* [i.e. a Mieldeaw.] As for the Frost at such a time, it is far worse than the blasting aforesaid, for when it falleth vpon any trees or plants, it there resteth and remains still, it congealeth all into an yce, and no puffe of wind there is to remoue and dislodge it: for why? such frosts commonly are not but in time of a stil, cleer, and calm aire. Touching that manner of Blasting or misliking called *Sideratio*, as if they were smitten with the maligne aspect of some planet, this danger chanceth peculiarly by some drie and hote winds, which are busie commonly about the rising of the Dog star, at what time wee shall see yong trees and newly grafted, to die outright, especially Figge trees and Vines. The Olive, ouer and besides the worme (whereto it is subiect as well as the Figge tree) hath another greefe and sorance called in Latin *Clavus*, *Fungus* or *Patella* [i.e. a Knur, Puffe, Meazil or Blister] chuse you whether, and nothing is it but a very sendge or burne by the sunne.

Furthermore, *Cato* saith, That the red Mousse is hurtfull vnto trees. Oftentimes also wee find that as wel Oliues as Vines, take harm by ouermuch fertilitye and fruitfulness. As for scab and skurfe, what tree is cleare of it? The running mange or tetter, is a mischeefe peculiar vnto the Fig tree: as also, to breed certain Hoddy-dods or shell-Snailes sticking hard therto and eating it. And yet these maladies are not indifferent and alike in all parts of the tree. For thus you must think, that some diseases are appropriate to one place more than another. For like as men are troubled with the Arthriticall torments, or the Gout, euen so be trees: yea, and after 2 forts

as well as they: for either doth the disease take the way to the feet, that is to say, to the roots; & there breaketh out and sheweth it selfe, or else it runneth to the exterior joynts and fingers, to wit, the smal branches and top twigs, which be farthest remote from the main body of the tree. Hereupon then begin they to drie, wither, and waxe blacke: and verily the Greeks haue proper names and tearms respectiue to the one infirmity and the other, which we in Latin want. Howbeit we are in some sort able to expresse the Symptomes following therupon; and namely, when we say, first, That a tree is ill at ease, sicke, and in pain euery where; anon, that it falls away, looks ill, poore, and leane, when wee see the fresh green hew gone, and the branches fraile and brittle: last of all, that it is in a waite, consumption, or feuer hecick, and dieth sensibly, to wit, when it receiue no nourishment (or not sufficient) to reach vnto al parts, and furnish them accordingly: and the tame Figge tree of al others, is more subiect hereunto; as for the wild, they be exempt wholly from all these inconueniences hitherto named.

Now as touching the scab or scurfe incident vnto trees, it commeth of certain foggie mists and clammie dewes, which light softly and leisurely after the rising of the Brood-hen star Vergilix, for if they be thin and subtil, they drench and wash the trees wel, and do not infect them with the scab: howbeit in case they fall down right, or that there be an ouer great glut of showers and raine, the Fig tree taketh harme another way, namely, by soaking of too much moisture into the root.

Vines, ouer and aboue the Worme and the Blast, haue a disease proper vnto themselves, called Articulation, which is a certain barraineffe of theirs when they leese their spring in the verie joynt. And this may come vpon three causes: the first, when by vnseasonable and ill weather, as frost, heat, haile, or other forcible impressions of the aire, they forgoe their young sprouts: the second (as *Theophrastus* hath well noted) if in pruning of them, the cut stand vpward and open to the weather: the third, when they be hurt by those that haue the dressing of them, for want of skill and taking good heed: for all these wrongs and inconueniences they feele in their joynts or knots. A feuerall kind of blasting or mortification there is besides in vines, after they haue done blooming, which is called Roratio; namely, when either the grapes do fall off, or before they come to their full growth, be baked (as it were) into a thick and hard callositie. It happens also that they be otherwhiles sick, in case after their pruning, their tender oilets or buds be either bitten with the frost, or singed with some blast. The same befalleth likewise to them vpon some vntimely or vnseasonable heat: for surely in all things, a certaine measure and moderate temperature doth well, to bring them to their perfection. To say nothing of the wrong that is done vnto them by the vine-masters themselves and husbandmen as they dresse and trim them, namely, when they bind them ouer-straight, as hath been said before, or when the labourer that diggeth about them, chaunceth to do them one shrewd turne or other by some crooked crosse blow; or else when the ploughman at vnawares doth loosen the root, or glance vpon it with the share, and so disbarke the bodie of it: finally, they haue iniurie done vnto them, in case the pruning-hooke bee ouer blunt, and so giue them a bruse. In regard of all these causes, they are lesse able to beare either cold or heat; for euery outward iniurie is readie to pierce their fresh galls, and a skald head is soon broken. But the tenderest and weakest of al others, be the Apple trees, and namely, the hastie kind that bringeth sweet Iennitings. Howbeit some trees there be which vpon such feebleness and hurt done vnto them, become barren onely, and die not; namely, the Pine and Date tree: for if a man fetch off their heads, you shall see them faile in bearing fruit, but this hurt will not kill them quite.

Moreover, it falleth out otherwhiles, that the Apples only or other such fruits, as they hang are diseased, when as the tree aileth nothing; to wit, if in due time they wanted rain, warmth, or winds that were needfull; or contrariwise, if they had too much of euery one: for by such means they either fall from the tree of themselves, or els they are the worfe for it, if they proue worth ought at all.

The greatest displeasure that can happen to Vine or Oliue tree, is, when in their very blooming they be pelted with violent showers of raine; for, together with the blossome, down goeth the fruit of them both. From the same cause, proceed the cankerwormes or caterpillars (a most dangerous and hurtfull kind of vermine to trees) which will eat out the Greene bud, knot and all. Others there be that wil deuoure the blossome and leaues of Oliues also, as in *Miletum*: and thus hauing consumed all the Greene leaues, leaue the trees bare, naked, and ill-fauored to the eye

A eye. These wormes doe breed in moist and warme weather, and especially if there be thick and foggie mists. Of the same vermine, there is another engendred, namely, if there ensue vpon the former wet season, hotter gleames of the sunne more than ordinarie, which burne the foresaid wormes, and therefore change them into other vermine. Moreouer, there is a fault or imperfection besides, wherto Oliues and Vines especially are subiect, and this they call in Latine *Ara-neus*, [i. the Spider] when cobwebs (as it were) doe enfold and wrap their fruit, keeping them from growing, and so in time killing them. Ouer and besides, there be certaine winds which singe and burne Oliues and grapes principally, yea and all sorts of fruits whatsoever. In some yerres also ye shall see all fruits worn-eaten, and especially Apples, Peares, Medlars, and Pomegranats, without any such hurt and offence to the trees that bear them. As for Oliues, the worme sometimes doth them harme, otherwhiles good: for if the worme be engendred and formed before it take the Oliue, it consumes and spoileth the fruit, but in case they breed within the kernel, it causeth the Oliue to thriue the better, by eating the said kernel that drew away and sucked the humor which nourished it. The rain that falleth after the rising of the starre *Arcturus*, hindereth the generation of wormes, and preferueth fruits from being worme-eaten: and yet if the wind sit Southward in that time when it so raineth, such raine will breed worms in oliues especially, called *Drupæ*; which beginning but then to ripen, are most readie to fall from the tree. And verily those trees that grow in waterie places or neer riuers, are more subiect to haue worme-eaten fruit, which although it fall not so soone, yet it is as loathsome euery way.

Ouer and besides, there is a certaine kind of flie resembling the Gnat, which annoieth some trees and their fruits, and namely, Malt and Figs: and it seemeth that this flie is engendred of a certaine sweet humour that lyeth vnder their barks. Thus much as touching all diseases to speake of, that trouble trees.

As for the impressions of the Aire at certaine seasons, as also of other accidents occasioned by the climat, they are not properly to bee called Maladies, because they kill trees sodainly: as namely, when a tree is blasted outright, or all at once doth wither and drie away: like as when some puffed of an vntoward wind peculiar vnto any region, doth smite them: such as in *Apulia* they call * *Atabulus*, and in *Euboea* is named *Olympias*: For if this wind chaunce to blow in mid-winter, it bireth, burneth, and drieth vp trees with such cold blasts, as afterwards no heat of the Sunne is able to recouer againe. In this sort likewise, al trees growing in vallies or standing along riuers sides, bee endangered: and aboue all others, Vines, Oliues and Figge trees. This death that they thus take, is soone after discovered and seene in the budding time when trees begin to put forth, howsoeuer it be later ere the Oliue shew it. Howbeit, a good signe it is in them all of their recovery, when they lose their leaues: for you shall see, the leaues tarie on in many of them, and when you think they are past the worst, sodainly die. Otherwhiles also you shall haue the leaues to fade and seeme drie, yet afterwards the same trees to reuiue againe, and become Greene. Furthermore, in the Northerly regions, as in *Pontus* and *Phrygia*, some trees there are that be ordinarily frozen to death; namely, when the frost and yce continueth after mid-winter fortie daies. And not onely there, but also in other countries, if immediatly after that trees haue put forth their fruit, there follow a hard frost, they wil die vpon it, although the frost last not many daies.

E In a second ranke of causes that may kill trees, are to be ranged the injuries and wrongs that come by mans hand: Pitch, oyle, and greafe, are very enemies and hurtfull to them al, but especially to young trees. Again, if trees be barked round about, they will die all, vnlesse it be the Corke tree; for it will thriue and prosper the better, if it be in that wise discharged of the outward barke; for growing as it doth ouer thicke, it claspeth and clingeth to the tree so hard, that it choketh and strangeth it again. Neither doth the tree *Adrachne* find any hurt or offence by disbarking, vnlesse the very wood be cut also together with it. As for cherie trees, Lindens, and Vines, it is ordinarie with them to cast their barke in some sort, and take no harme thereby; but it is not the vitall and liuely inner barke indeed which is next vnto the bodie, but that onely which by comming of another underneath fresh and young, is driuen forth and thrust out.

Some trees there be, which naturally haue their barke full of chaps and rifts, as the Planes for example. As for the Line or Linden tree, if it chance to leese the barke, it will come in manner whole and entire againe. In such therefore the manner is, by way of cure to close vp againe with clay and dung, the naked and bare place, and so to bring it to a cicatrize: and, I assure you, this

this practise sometimes speeds well, and doth the deed; provided alwaies, that the naked place were not surpris'd before the cure, with extremity either of cold or heat. Certaine it is, that by this means both kinds of the Oke, as wel the Robur as the Quercus, liue the longer, and die nothing so soone as otherwise they would. And herein the time of the yeare ought to be considered, when a tree is thus pilled and disbarked: for in case that a man pill the barke of the Firre or Pine tree, during those months wherein the sunne passeth thorough the signes of Taurus or Gemini, which is the very season of their budding, there is no way but one with them, for presently they die: but if this wrong should befall them in winter, they would abide it the better and longer liue, than being so misused either in Aprill or May. The same is the case of the mast-Holme, the wild Robur also, and the common Oke. Howbeit, take this note by the way, that if the void place where the tree hath beene barked round about, be but narrow, so as the brims of the barke remaining be not farre asunder, the trees aforesaid will take no harme at all thereby. Mary in the tenderer sort, and such as a man may say are but of a weake complexion, and growing besides in a leane and hungrie ground, if the barke be taken away but of one side and no more, it is enough to kill them.

The like may be said of the topping or beheading the Cypresse, the Pitch tree, and the Cedar: for let these haue their heads either cut off with an axe, or burnt by fire, they will die, there is no remedie. As much also is to be said, when beasts doe brouse and eat them. As for the Oliue tree, if a Goat chance but to licke thereof, it will thereupon proue barraine and beare no more Oliues; so saith Varro, as we haue noted heretofore. But as some trees vpon the like injury done vnto them, will die, so others againe will be but the worse for it, and such are the Almond trees: for where before they did beare sweet Almonds, they will euer after bring bitter. Moreover, you shall haue some trees, that wil thriue & do the better after this hard dealing, & namely a kind of pearre tree called Phocis, in the Island Chios: for you haue heard by me already, which trees they be that lopping and shredding is good for.

Most trees, and in manner all (except the Vine, Apple tree, Fig tree, and Pomegranate tree) will die, if their stocke or bodie be clouen: and some be so tender, that vpon euery little wound or race that is giuen them, yee shall see them to die: howbeit, the Figge tree and generally all such trees as breed Rosin, desie all such wrongs and injuries, and will abide any wound or bruse whatsoeuer.

That trees should die when their roots are cut away, it is no maruell: and yet many there bee of them, that wil liue and prosper well neuertheless, in case they be not all cut off, nor the greatest master roots, ne yet any of the heart or vitall roots among the rest.

Moreover, it is often seene, that trees kill one another when they grow too thicke; and that either by ouershadowing, or else by robbing one another of their food and nourishment. The Iuie also, that with clipping and clasping bindeth trees too hard, hastneth their death. Mistleto likewise doth them no good; no more than Cytisus, or the hearbe Auro, which the Greekes name Alimus, growing about them. The nature of some plants is, not to kill and destroy trees out of hand, but to hurt and offend them only, either with their smell, or else with the mixture and intermingling of their owne iuice with their sap. Thus the Radish and the Lawrell doe harme to the Vine if they grow neare vnto it: for surely the Vine is thought to haue the sense of smelling, and wonderfully to sent any odours: and therefore it is obserued in her by experience, That if shee be neare vnto Radish or Lawrell, shee will turne away and withdraw her selfe backward from them, as if shee could not abide their strong breath, but vtterly abhorred it as her very enemy. And vpon the obseruation of this secret in Nature, Androcles the Physitian deuised a medicine against drunkenesse, and prescribed his patients to eat Radish if they would not be overcome with wine. Neither can the Vine away with Coleworts or the Cabbage, nay it hateth generally all worts or pot-herbs: it abhorreth also the Hazell and Filberd tree; in such sort, as a man shal sensibly perceiue it to looke heauily and mislike, if those plants aforesaid grow not farther off from it. And now to conclude and knit vp this discourse, would you kill a Vine out of hand? lay to the root thereof nitre or salt-petre, and alumne, drench it with hote sea-water: or doe but apply vnto it Bean cods, or the shales or husks of the pulse Eruille, and you shall soone see the operation and effect of a most ranke and deadly poison.

¶ Of many and sundry prodigies or strange tokens and accidents about trees. Also of an Oliue plot which in times past was transported all and whole, from one side of an high port way, to another.

IN this Treatise of the faults and imperfections incident to Trees, me thinks I should doe well to say somewhat of the supernatural occurrences in them obserued: for we haue known some of them to grow vp and prosper without any leaues at all. And as there haue bin Vines and Pomegranats seene to beare fruit, springing immediately from the trunk, and not from branch or boughs: so there haue bin vines charged with grapes, and not clad with leaues: and Oliues likewise had their berries hanging vpon them whole and sound, notwithstanding all their leaues were shed and gon.

Moreover, strange wonders and miracles haue hapned about trees by meere chance and fortune: for there was an Oliue once, which being burnt to the very stump, reuiued & came againe: and in Beotia, certain Fig Trees, notwithstanding they were eaten and gnawn most piteously with Locusts, yet budded anew, and put forth a fresh spring. Also it hath bin marked, that trees haue changed their colour from black to white. And yet this is not alwayes a monstrous thing beyond naturall reason, and specially in such as come of seed, as wee may obserue in the Aspe, which eftssoones turneth to be a Poplar. Some are of opinion, That the Seruise Tree if it bee transplanted, and come into a hotter ground than is agreeable to the nature thereof, will leaue bearing, and be barren. But it is taken for no lesse than a monster out of kind, that sweet Apples and such like fruits should proue sowre, or sowre fruit turne to be sweet; as also that a wilde Fig Tree should become tame, or contrariwise. And it is counted for an vnluckie sign, if any Tree change from the better to the worse; to wit, if a gentle garden Oliue degenerate into the wilde and sauage: if a Vine that was wont to beare white grapes, haue now black vpon it: and so likewise if a Fig Tree which vsed to haue white Figs, chaunce afterwards to beare black. And here by the way I canot forget the strange accident that befell in Laodicea, where vpon the arriual of King Xerxes, a Plane tree was turned into an Oliue. But if any man be desirous to know more of these and such like miracles, for as much as I loue not to runne on still and make no end, I refer him ouer to Aristander a Greek writer, who hath compiled a whole volume, and stuffed it full of such like wonders: let him haue recourse also to C. Epidorus, a Countryman of ours, whose Commentaries are full of such stuffe: where he shall find also, that trees sometimes spake.

A little before the ciuill war brake out between Iulius Caesar and Pompey the Great, there was reported an ominous and fearfull sight presaging no good, from out of the territory of Cumes, namely, That a great Tree there sunke down into the earth so deep, that a very little of the top boughs was to be seene. Hereupon were the propheticall books of Sibylla perused, wherein it was found, that this prodigie portended some great carnage of men; and that the neerer that this slaughter and execution should be to Rome, the greater should the bloodshed be.

A prodigious signe and wonder it is reputed also, when trees seem to grow in places where they were not wont to be, and which are not agreeable to their natures; as namely on the chapters of pillars, the heads of statues, or vpon altars: like as to see one tree of a diuers and contrary kinde growing vpon the top of another, as it befell about the city Cyzicum hard before the streit siege that was laid vnto it [by Mithridates] both by sea and land, where a Fig tree was seene to grow vpon a Lawrell. Likewise at Tralleis, about the time of the foresaid ciuill war, a Date tree grew out of the base or foot of a Colunne that Caesar Dictator caused there to be erected. Semblably at Rome also, twice during the war between the Romans and K. Persens, there was a Date tree known to grow vpon the lantern or top of the Capitoll temple, foreshewing those victories and triumphs which afterward ensued, to the great honor of the people of Rome. And when this was by stormes and tempests ouerthrowne and laid along, there sprung vp of it selfe in the very same place a Fig tree, at what time as M. Messala and Caius Cassius the two Censors, held their Quinquennall solemn sacrifices for the assailing and purging of the city of Rome. From which time Piso (a renowned Historiographer and Writer of good credit) hath noted, that the Romans were giuen ouer to voluptuousnesse and sensuality, and that euer since all cha-

* Or as some read, the head of Iupiter within the Capitoll.

stetic and honest life hath bin exiled. But aboute all the prodigies that were euer seen or heard, G there is one that passeth, and the same hapned in our age, about the very time that Nero the emperor came to his vnhappy end and fall: for in the Marrucine territorie there was an oliue garden belonging to *Vestius Marcellus* a right worshipfull knight of Rome, which of it selfe removed all and whole as it stood, ouer the broad highway, to a place where lay tillage and earable ground: and the corn lands by way of exchange crossed ouer the said causey againe, and were found in lieu of the Oliue plot or hortyard aforesaid.

CHAP. XXVI.

¶ *The remedies for the maladies and diseases of Trees.*

NOW that I haue declared the diseases of Trees, meet it is that I should set down the cure and remedies thereto. Where this one thing would be first noted, That of Remedies, some be common to all trees, others appropriate to certain. Common be these following, To bare and cleanse the roots, to hil and bank them again; that is to say, to giue aire vnto the roots, & let the wind into them: and contrariwise to couer them, & keep both wind & weather from them: to water them, or to deriue & diuert water from them: to refresh their roots with the fat liquor of dung: to discharge them of their burden by pruning their superfluous branches. *Item*, to giue their humors issue, and as it were by way of phlebotomie to let them blood, and to skice and scrape their bark round about, in maner of scarification. To take downe their strength and keep them vnder that they be not too lusty & proud. Also, if the cold hath caught their buds or burgeons, & therby caused them to look burnt, rough, and vnpleasant, to slick, polish, & smooth them again with the pumy stone. These verily be the diuers helps to cure trees: howbeit, vfed they must be with great discretion, for that which is very good for one, is not so good for another: and some trees require this course, others that, to be taken with them. As for example, the Cypres tree cannot abide either to be dunged or watered, it hateth all digging and deluing about it; it may not away with cutting and pruning, it is the worse for all good physick, nay, all remedies to others are mischiefs to it, and in one word, go about to medicine it you kil it. All Vines, and Pomegranat trees especially, loue a life riuer sides, & desire to be watered, for thereby will they thrive and prosper. The Fig tree also it selfe is nourished and fed in waterie grounds: but the fruit that it beareth is the poorer by that means. Almond trees if they be plied with digging, will either not bloome at all, or else shed their floures before due time. Neither must any yong plants or trees newly graffed, be digged about their roots, before they haue gathered sufficient strength, and begin to beare fruit. Most trees are willing enough to be disburdened of their superfluous and ouer-rank branches, like as we men can spare our nails to be pared, and bush of hair to be cut, when they be ouergrowne. As for old trees, they would be cut down hard to the ground, for vsually they rise again of some shoot springing from the root, and yet not all of them. Regard therefore must be had, that none be so vfed but such (as we haue noted before) as are able of nature to abide it. For trees to be watered at the roots in the heate of summer, it is good, but in winter it is as bad. In the fall of the leaf it may be wholsom, it may also be hurtfull, and therefore the nature of the soile would be considered: for the grape-gatherer in Spain meeteth with a good vintage, notwithstanding the Vines stand in a marish and fennie ground; howbeit in most parts of the world besides, it is thought good husbandry, to draine away from the roots the very rain water that falls from about in Autumne. About the rising of the Dog-star, trees desire most of all to be wel watered; and yet they would not haue too much thereof euen in that time, for in case their roots be ouer-drenched and drowned therewith, they will catch harm. Herein also the age of trees is to be respected, which in this case prescribeth what is meet and sufficient: for yong trees be lesse thirsty than others: also Custome is a great matter. For such as haue bene vfed vnto watering must not change their old woont, but they require most of all others to be vfed so still. Contrariwise, Those Trees which grow vpon dry grounds naturally, desire no more moisture than that which is needfull. In the territory about Sulmo in Italy, and namely within, the Liberties of Fabianum, the Vines which doe beare the harder and sower Grapes, must of necessitie be watered. And no maruaile, for the verie lands and Corne-fields vse to haue water let in vnto them. And here a wonderfull thing is to be obserued; This water cherisheth the Corne, but killeth all the hurtfull Grasse among: and the

A. the riuer overflowing the lands, is as good as a weeding. In the same countrey the maner is in midwinter to open a sluice or draw vp their floodgates, for to overflow their vine roots with the riuer: and so much the rather, if either it be an hard frost, or snow lie vpon the ground: And why so? because the pinching cold should not burne them: and this they call there by the name of Tepidare, [i. to giue them a kindly warmth as in a stouue:] see the memorable nature of this only riuer, to be warme in winter, and yet the same in summer is so cold, that hardly a man can endure his hand in it.

CHAP. XXVII.

¶ *Of caprification or scarifying trees: also the maner of dunging them.*

T OUCHING the remedies for blasting as well by heat as cold, I will treat in the booke next following. Meane while I cannot omit one manner of cure by way of Scarification. For when the bark is poore and lean, by reason of some disease or mislike, so as it clengs together, pressing and binding the quick wood ouermuch, whereby the tree is as it were hide-bound, they vse to slit the same along with a very sharpe cutting hooke; guiding and gaping the edge thereof with both hands, that it goe not ouer-deep: and so by these incisions they doe open it, and as it were losen and enlarge the skin. Now, when this feat is wrought, the onely signe that it is wel don and good for the tree, is this, if the incisions in tract of time appeare wide, and the void place incarnate again and fill vp with a kind of callous substance, compounded of the sap, and wood together growing betweene. Whereby it appeareth, that in many cases the cure of mens maladies & the diseases of trees is very like: for that euen their bones also vse to bee trepanized and bored through as well as ours. Also for to make sweet almonds of bitter, first the tree must be digged round about, and then boared thorough with an auger toward the root or butt end, whereby the waterish humor that runneth downward, may issue forth and passe away. Moreouer, if a man would discharge Elmes of their superfluous moisture, they must be pierced with a wimble, a little about the ground, as far as to the very heart or pith; if either they be old, or be perceived to receiue ouermuch nutriment. In like maner the same excessive humor is let out of Fig trees by meanes of certaine light slits or gashes made in the barke, a slant or byas, in case it seeme to swell and be ouer-streight, and by this deuise they preuent the falling of their fruit.

D Generally, what trees soeuer bearing Apples or such like soft fruit without, if they chauce at any time to proue barren, that is to say, to put forth leafe only without any fruit, the vse is, first to make a cleft in the root; then, to put a stone therin, that the edges meet not and rejoin againe; and so they become fruitful. The same is practised in Almond trees also, but in stead of the stone there must be a wedge of Oken wood driuen in. As for Pyrries and Medlar trees, those wedges must be made of Pine Torch-wood. Moreouer, if either vines or fig trees, be ouer ranke of wood, it is very good to cut and skice the roots round about, and when they bee thus serued, to couer with ashes the said incisions: but then they must bee close couered with ashes and earth aloft. If ye would haue trees beare Figs at the later end of the yere, pluck off the first green figs so soon as they be somewhat bigger than Beans: for vnder them there wil other come vp in the place, and be later ere they wax ripe. The same fig trees when they begin to spring leaf and look green, if the top-twig of euery bough be cut off, becom the stronger & more fruitfull by it. For as touching the ripening of Figges by Caprification, true it is, that there be certain flies like gnats engender in greene figs, which are the occasion thereof, for when they are flown out, there are no graines or seeds found within: whereby it is euident, that they be turned into those flies. And when they do fly forth, so hasty they are to be gone, that many of them as they breake out, leaue either a foot or a wing behind them. Besides, another kind there is of gnats, which they call Centtina, for sloth and shrewdnesse like in al the world to Drone-bees, so mischeuous they be to the good flies or gnats indeed, that cause the Figs to ripen: for, them they kill, and die themselves when they haue done. Moreouer, there be certaine wormies like moths that ordinarily do much hurt to the graines or seeds within figs, and eat them quite: The only remedie against this vermine, it is to take a twig or imp of the Italian Lentisk tree, and to set or couch it with the wrong or top end downeward, in the very same trench where the fig tree was planted. For to haue fig trees beare most plentifully, take ruddle or red-earth tempered wel with the lees or grounds of oile, after that the same is mixed with dung, poure it to the roots of the

trees when they begin to put forth leaues. Among wild Fig trees, the best be the black & those that grow in stonie grounds: for their Figges are fullest of cornes or graines within. And as for caprification, it would be praefised after rain. And take this for a generall rule, That ye beware in any hand in curing of trees, least yee vse a mischeefe for a remedie, a thing that commonly happeneth by ouer many medicines, or the same not applied in due season: for as it is very good for trees, to cut and lop off their boughs where they grow too thicke: so to be hacking and mangling of them euery yeare, hurteth them as much. As for the vine, it requireth pruning once a yeare: but the Myrtle trees, Pomegranate, and Oliue trees, euery two yeares; because they will quickly spring againe and shoot forth branches thicke. Other trees would not be lopped so often. Neither is it good to cut or prune any whatsoeuer it be, at the fall of the leafe. Nay, they are not so much as to be scraped, but in the pruning time, that is, in the Spring. All wounding of trees goes to the very heart, and hurt the quick, vnlesse it be of those parts that are superfluous.

As great consideration there would be had in the manner of mucking them. No doubt, they loue dung well: but carefull heed would be taken first, that none be laid to the roots in the hottest season of the yeare. Item, That it be not Greene, but thoroughly rotten: lastly, that it bee not ouer ranke nor stronger than is needfull. Swines dung burnes the root of vines, vnlesse it bee five yeares old, or the vines stand in some place where water is at commaundement for to coole the excessive heat thereof. Also the filth of Tanners ooze and Curriers scrapings doe the like, if they be not well delaid with water. Likewise it must not be laid too thicke. The ordinarie proportion is thought to be for euery ten foot square, three Modij of dung. But herein no certaintie can be set downe: for the nature of the soile must rule all. With Swines and Pigeons dung, they vse to foulder the cuts and wounds that are giuen to trees. In case the Pomegranats grow to bee tart and soure, the manner is to dig about the root and lay it bare, and then to put Hogs dung thereto: for that yeare the Pomgranats will be full of a wine iuice; and the next yeare following proue sweet. Some good husbandmen there be, that think it meet and requisit foure times a yeare to water their roots with mans vrine and there water together, and vpon euery one they bestow a whole Amphore. Or else to bedew and sprinkle the top branches of the Pomegranat trees with wine, wherein Laser hath bene steeped. When the pomegranat doth cleaue & open vpon the tree, it is good to wreath the steal therof. If Figs doe the like, there would be oile lees cast vpon them. Other trees when they are amisse or doe mislike, ought to be drenched with wine lees: and Lupines if they be set about their roots, will helpe them. The water also or decoction wherein Lupines were sodden, poured about the roots of Apple trees or such like, doth them much good. If it happen to thunder about the feast Vulcanalia, Figs will fall from the tree. The remedie thereof is to strow the plots before with Barley straw. Would you haue hastie Cherries? Lay lime to the roots of the tree, it will cause them to ripen their fruit speedily. Of al fruits these hastie Cherries would be plucked and gathered as they ripen, to the end that those which be left behind, may thrine and grow big and faire.

CHAP. XXVIII.

¶ Many and sundrie medicines seruing for trees, to wit, remedies against venomous vermine and Pismires, likewise against all hurtfull beasts.

Some trees there be which are the better for wrong and injurie done vnto them: yea, and if they be pinched or bitten, they shoot vp the rather, as Date trees and the Lentisks, for euen the very salt water nourisheth them. And true it is, that ashes hath the like nature and vertue that salt, howbeit, more mild and gentle. Hereupon it comes also, that Fig trees vse to bee strewed therewith, yea, and to be wet with the iuice of Rue, to the end, that neither their fruit should proue worm-eaten, nor their roots putrifie and rot. Moreover, if vines be too full of moisture and apt to bleed ouermuch, it is an ordinary thing to pour salt water to their roots. Also, in case their grapes be apt to fall, folk vse to take ashes and besprinkle them with vinegre, and so to besmear the roots therewith: or els with red Orpiment, in case the grapes be giuen to putrification. Say that vines be barren and will not bear grapes, their roots ought to be wel drenched and dawbed with sharp vinegre and ashes incorporat together. But what if a vine bring not her fruit to full maturity, before it begin to wax drie and to wither? the superfluous wood ought to be cut away about the root, and the cuts together with the small strings or beard of the root to bee

A be wet and foked in sharp vinegre, and stale chamber-lee, and then they should be well couered and stopped with a kind of mortar made therewith, and often digged about. As for Oliues, if they make shew of smal increase, their roots must be bared and laid open to the cold in winter; for by this manner of chastisement they will amend and do far better.

In all these remedies, proceed we must according to the course of the yere: for sometime the season requireth, that the meanes should bee sooner vsed, and otherwhiles later. Some plants there be that fire is good for, and namely, canes and reeds: for if they be burnt, they will come vp againe the thicker and more smooth. As for Cato, hee hath certain compound medicines for trees, distinct by sundry measures by him prescribed: for he hath ordained to the roots of the greater trees an * Amphore, but of the lesse an * Vrina only, of Oile dregs, with an equall quantity of water: all which being tempered together, he would haue to be poured by little & little to the roots, but they ought before to be digged about and laid bare. And for the Oliue, he addeth moreover, that the roots should haue a bed of litter or straw made before, and then vsed accordingly. In like manner also would the fig tree be serued: but especially at the roots of it there should be raised a bank of old earth; for by that means it will come to passe, that the green figs will not fall, they will beare more plenteously, and the fruit be more smooth and pleasant. To prevent in like maner, that the worme * Convolvulus bred not in a vine, hee appointed two gallons of oile dregs or lees, to be boiled first to the thicke consistence of hony, and then afterwards to take a third part of the slime Bitumen, and a fourth part of brimstone, and seeth all together again in the open aire; for within dores there would be some danger of setting the house

a fire. With this mixture, if a vine be well annointed about the ioints, and vnder their hollow arm-pits, he assureth vs, that there will no such worme breed therein. Some content themselves to perfume vines onely with the smoke of this composition, so as it be done on the winde-side, that it may carry the fume directly to them; and this should be continued for three daies together. Many are of opinion, that wine being mingled with like quantity of water (because alone of it selfe it is hurtfull) is as good for this purpose as the oile dregs abouesaid, which Cato hath prescribed. Another kind of vermin or worme there is, that gnaweth the tender buds or burgeons of the vine, and the same is called Volvox: to preserve vines from this harmefull creature, men are wont to take their vine-hooks when they be newly ground and sharpened, then to scoure them with a Beaucers skin, and with them to prune the vines: or else after they be pruned, to annoint them with bears blood. Moreover, Ants or Pismires make foule work otherwhile among trees. If you would driue them away, daub the stock or butt end with red Sinopre and Tar tempered together. Or do but hang vp any fish neere by; and all the Pismires will leaue their former haunt, and gather about it. Others make no more adoe, but stampe Lupines with froile, and therewith annoint the roots. Many there are, who kill both them and Mouldwarps with oile dregs. Also, against Palmer-worms or Caterpillars, and to keepe Apples from rotting, they giue order for to annoint the top twigs and branch ends of trees with the gal of a green Lizard. But more particularly against the said caterpillars, they would haue a woman whiles her monthly sickness is vpon her, to go round about euery tree by it selfe, barefooted and barelegged, vnbraced and unlaced, and her haire hanging about her eares. Moreover, to preserve trees from wilde and noisome beasts, that none of them come neare to bruise and marre their green spring, they doe appoint to bespreint their leaues with Greene Cow or Oxe shearne, and water together, betweene some showers, that the rain may wash away the malice and hurtfull quality of the medicine. A wonder to see how inuentiue men are to deuise remedies for euery mischiefe; for many you shall haue, who be verily perswaded, that there are certain charms & enchantments to driue away the haile. But for mine own part, I thinke it meere mockery to set downe the very words, although Cato hath done it before me. Who also speaketh of another spell for dislocations or members out of ioint (an accident happening to trees) which he would haue to be ioined close within the clift of canes. The same writer hath permitted men to cut down sacred groues, trees also dedicated for religion and sequestred from profane vse (after a solemne sacrifice to the gods first performed): the reason and manner whereof he hath put downe in a certaine treatise, which hee compiled of purpose as touching that argument.

* Amphora, or Quadrans, was a measure Romane of liquor, containing 16 Congij, which is about 16 wine gallons.
* Vrina, is halfe Amphora, to wit, 8 gallons, or thereabouts.
* Vine fretar, or the Diuels gold-ring.



THE EIGHTEENTH BOOKE OF THE HISTORIE OF NATURE,

WRITTEN BY C. PLINIUS

SECVNDVS.

CHAP. I.

¶ *Of the exceeding love and affection of our ancestors in old time to Agriculture and Husbandrie. Also, of their singular paines and diligence about Gardens.*

NOW followeth the treatise of corn, of Gardens, and Floures, and generally of al things else, that by the goodnesse of Nature the Earth bringeth forth bountifully, besides Trees and Shrubs. The speculation whereof verily is infinit, if a man do but consider the number and variety of Herbes and Floures, together with their odors and colors; the diuersity also of their iuices, their seuerall vertues and properties, whether it be to cure men of their maladies, or to giue them pleasure and contentment to their senses. But before that I enter into this discourse, very willing I am to take in hand the cause of Earth (the common mother of vs all) and to assist her against all slanderous imputations, notwithstanding I haue in the beginning of this my worke pleaded once already in her defence. For when we looke into the matter within her contained, we are set on fire inwardly to find fault with her for breeding and bearing noisome things, charging vpon her our own faults, and imputing to her that, for which we of right ought to be blamed. Set case she hath brought forth poison and venom, Who hath searchad them out but man? As for the fouls of the aire and wild beasts, it is sufficient that they touch them not, nay they know how to beware and auoid them. For say that the Elephants doe file their teeth sharp against hard trees, say that the Rhinocerotes whet their horns against the rockes, and the wild Bores sharpen their edge tuskes against both stocke and stone: say that all creatures know well enough how to prepare and frubbish their weapons to do mischief, which of them all yet infect them with poison, but man alone? we haue the cast to envenome and poison arrowes; we can tell how to put something to our darts of yron and Steele, more hurtfull and mischieuous than they be. It is ordinary with vs to poison riuers also; yea & the very Elements whereof the world doth stand, are by vs infected: for euen the aire it selfe, wherein and whereby al things should liue, we corrupt to their mischief and destruction. Neither can we truly say or think, that other creatures besides vs are ignorant of these poisons; for we haue already shewed, that they are not to seeke either what defensatiues to prouide against they should fight with serpents, or what remedies to find for their cure after they haue fought and are hurt. Moreover, setting man aside, there is no creature furnished or armed with any other venome, but their own. We cannot chuse therefore but confesse our great fault and deadly malice, in that we rest not contented with naturall poisons, but betake our selues to many mixtures and compositions artificiall, made euen with our owne hands. But what say you to this? Are not some men themselves meere poisons by nature? for these slanderers and backbiters in the world, what doe they else but lance poison out of their black tongues, like hideous serpents? what doe these enuious persons, but with their malicious and poisonfull breath sidge and burne all before them that they can reach or meet with, finding fault with euery thing whatsoever? Are they not well and fitly compared to these cursed fouls flying in the dark, which albeit they sequester themselves from

A from birds of the day, yet they bewray their spight and enuy euen to the night and the quiet repose thereof, by their heauie grones (the only voice that they vtter) disquieting and troubling those that be at rest: & finally, all one they be with those vnluckie creatures, which if they happen either to meet or crosse the way vpon a man, presage alwaies some ill toward, opposing themselves (as it were) to all goodnesse, and hindering whatsoeuer is profitable for this life. Neither do these monstrous and abominable sprites know any other reward of this their deadly breath, their cursed and detestable malice, but to hate and abhor all things. Howbeit, herein may wee acknowledge and see the wonderfull maiestie of dame Nature: for like as she hath shewed herselfe more fruitfull and liberall in bringing forth profitable and hole some plants, in greater plenty than hurtfull and noisom; so surely hath she furnished the world better with good men and vertuous for the weale publick. In which regard and consideration, we also taking no small joy and contentment (leauing these troublesome spirits to themselves for to broile and frie in their owne greace) will go on forward and proceed to declare the rest of Natures workes; and with the better resolution, for that wee seeke more pleasure and contentment in the paines and trauell that we take, than expect any fame or bruit of men afterwards. For why? we are in hand to speake of the countrey and countrie commodities, such as in old time like as they were most necessary for this life, so they were accounted and honoured most highly.

CHAP. II.

¶ *Of the first gairland or chaplet made of herbes and floures at Rome.*

THE first order that K. Romulus instituted in Rome city newly built, was the guild or fraternitie of certaine Priests or Wardens ouer corn fields, which were in number twelue. And for to do the greater honour to this company, he caused himselfe to be called the twelfth brother among them: and *Acca Laurentia*, the nourse or foster-mother of this Prince, bestowed vpon him a garland of corne ears, twisted and tied together with a white ribband, as the most sacred badge and ensigne of this new Priesthood, which he and his brethren should weare with great reuerence and deuotion: and this was the very first chaplet known at Rome. Now the honor of this ornament was perpetuall, and continued for terme of life; so as a man once inuested therein, could not be degraded and deprived thereof; though hee were banished or taken prisoner; it accompanied him euer to his dying day. Then, and in those daies, euery man within the whole body of the people of Rome, contented himselfe with two acres of land, and King Romulus assigned to none of his subiects a greater proportion: whereas now ye shall haue those that crewhile were but slaues and seruants vnder the emperor *Nero* (despising as not sufficient, green enclosures and gardens of that compasse) must haue fish-pooles also bigger than so: and well it were if they would stay there and go no further, for shortly we shall see some one or other of them, neuer rest vntill he haue kitchins also more than two acres wide. And thus much for king Romulus.

King *Numa* his successor, ordained to worship the gods with an oblation of corne, yea and to offer prayers and supplications vnto them by no other means, than cakes made of salt and meal: yea and as *Hemina* mine author saith, for to induce the people of Rome the better vnto it, he allowed them to parch their corne in their sacrifices; for that corne thus parched, was supposed to be a more wholesome food: by which meanes, this one thing insued in the end, that no corne was counted pure and good, nor fit to be used in diuine seruice, but that which was thus baked or parched. He also instituted the feast *Fornacalia*; to wit, certaine holy daies for the parching and baking of corne: as also another as religiously obserued, called *Terminalia*; namely, for the bounds and limits of lands: for these and such like gods, as then, they worshipped most: as also the goddesse *Seia*, so called *a serendo*: [i. of sowing corne and setting plants:] and *Segetia*, which name they gaue her *a segetibus*, [i. of corn fields:] whose images we at this day do see in the grand Cirque or Shew-place at Rome. A third goddesse there is among them, whom to name and inuocate within house; they might not with safe conscience. Lastly, so religious and ceremonious they were in old time, that they would not so much as taste of new corne or wine, before the Priests had taken a fey of the first fruits.

* *Tertium, to wit, Tertulianus, for preserving of trees planted, and corne sowne: or as some reade (Tertium) meaning Tertulianus.*

CHAP.

¶ Of Iugerum, and Aetus. Of the antient Lawes ordained for Cattell in old time. How often and at what time Corne and victuals were exceeding cheape at Rome. What noble and famous persons addicted themselves wholly to Husbandrie and Tillage.

AN Acre or Arpen of ground, called in Latine Iugerum, was as much as might be eared vp or ploughed in one day with a yoke of Oxen. And Aetus in Latine is a Land, or so much just as two Oxen are driuen and occupied in, whiles they plough in one tra& without any rest. This contained by the old time, 120 foot in length: and being doubled in length, made the Acre or Iugerum abouesaid.

In antient time of the old Romans, the greatest Present that could be given to captains and souldiers who had borne themselves valiantly in the seruice of their countrey, was as much ground as they could haue eared or broken vp in one day. And it was thought a great reward to receiue at the hands of the people of Rome halfe a pint (or a pint at the utmost) of corn. Moreover, in so great request was corn and Husbandry, that the first and chiefe houses in Rome, took their surnames from thence: and namely, the *Pilumii*, who deuised first the pestill to bray corne withall in their mills and backhouses: also, the family of the *Pisanes*, who tooke their name, *a pisendo*, [i. of stamping or pounding corne in a mortar.] The *Fabij* in like manner, the *Lentuli*, and the *Cicerones*, each one according to the seuerall pulse that they skilled best to set or sow. Moreover, to the house of the *Iunij*, they gaue the surname of *Bubulcus*, by occasion of one of their ancestors, who knew passing well how to vse and order oxen.ouer & besides all this, that you may know what regard was had of corn, among other sacred and holy ceremonies, there was nothing reputed more religious than the bond of Confarration, in knitting vp of mariages, & assurance making of the chiefe priests: yea, the manner of the new wedded brides was to carry openly before them a wheaten cake. In times past, the Magistrates called Censors, iudged it a trespassse worthy of great rebuke, to be an ill husband; that is to say, to be careless and negligent in tilling the ground. And as *Cato* reporteth, if men called one by the name of a good husbandman, they were thought to haue praised & commended him in the highest degree: hereupon also it came, that rich and substantiall men were termed in Latine, *Locupletes*, as one would say, *Locipleni*, [i. wel landed.] And as for the very word *Pecunia* in Latine, which signififieth money, it took the name of *Pecus*, (i. cattell). And euen at this day (as appeareth in the Registers of the Censors, and the accounts of the city Chamber) all their rents, reuenues, and customes growing vnto the people of Rome, are called *Pascua*; for that a long time the whole domaine of Rome, stood vpon pasturage and nothing els. The penalties and fines also, which offenders were put to pay, were raised of nothing else but of Kine, Oxen, and Sheep: where, by the way, I cannot conceale from you the fauorable regard that the antient lawes and ordinances of Rome had; whereby it was expressely forbidden, That no Iudge who had power to enioine or impose any paine and amercement, should name the fine of an Oxe, vnlesse he had passed that of a Sheep first. The solemne games and plaies also in the honour of Kine and oxen, they who frequented them, called *Bubetij*. Moreover, king *Seruius* at the first when hee made brazen coine, stamped the peeces with the portraiture of Sheepe, Kine, and Oxen. By the lawes of the twelue Tables, all persons whatsoeuer aboue foureteen yeares of age, were forbidden vnder paine of death, either by stealth, to feed their cattell in the night time vpon any corn-field of another mans, ploughed and sown; or to cut the same downe by syth or sickle at such a time, and in that manner. By the same laws also ordained it was, That whoeuer was attaint or conuicted thereupon, should be hanged by the head and strangled for satisfaction of the goddesse *Ceres*: and in one word, to be more grievously punished than in case of man-slaughter. But if the offender were vnder that age before-said, the same law provided, that hee should be whipped at the discretion of the Pretor or Lord chiefe Iustice for the time beeing: or, if this punishment were remitted by the partie who sustained the damage, then hee should satisfie vnto him for the trespassse as a slaue, and pay double for the losse, according as honest and indifferent men valued it. Furthermore, in antient time, the distinction of States and degrees in the city of Rome (both for wealth and worship) was according to their lands, and not otherwise. Inso much, as those citizens were reputed for chiefe and principall, who were possessed of Land and liuing in the Countrey: and these made the State, called the Rusticke Tribes, in Rome: whereas contrariwise the other estate, reputed the

A the meaner in degree, was named the Vrbane Tribes; consisting of Artisans and such like as were not landed persons: into which, if a man were transferred from any of the rest, it was thought a great shame and disgrace, as if he were reproched for idlenesse & negligence in husbandry. And hereupon these foure Tribes alone took name of those foure principall parts or quarters of the city wherein they were seated, to wit, Suburrana, Palatina, Collina, and Esquilina. ouer and besides, vpon faires and market daies, the Rustick Tribes usually visited the city: vpon which daies therefore no publick assemblies of the people were holden, to call the Commons away from their market affaires. Also the manner in those daies was to take their sleepe and repose in good straw and litter. Yea, and when speech was of glory and renowne, men would call it by no other term but *Adorea*, of *Ador*, a kind of fine red wheat. Where, by the way, I haue in great admiration the antique words of those times, and it doth me good to think how significant they were. For thus we read in the sacred Pontificall Commentaries of the high priests, *For the Augurie or solemne sacrifice called * Canarium, let there be certain daies appointed, to wit, before the corn shew eare out of the hose, yea, and before that it come into it.* But to return againe to the praise of Husbandry. When the world was thus addicted and giuen to Agriculture, Italy was not onely well provided and sufficiently furnished of corne, without any help from out-provinces, but also all kind of grain and victuals were in those daies so exceeding cheap, as it is incredible: for *Manius Martius* a Plebeian Edile of Rome, was the first man that serued the people wheat at one Ass the Modius: and after him *Minutius Augurinus*, the eleventh Tribune of the commons (euen he who indited that mutinous and seditious citizen *Sp. Melius*) brought down the price of wheat for 3 market daies to an Ass the Modius. The people therefore of Rome, in regard of this good deed of his, erected a statue for him without the gate Trigemina; and that with such affection and deuotion, that every man contributed somewhat thereto by way of beneuolence. *Trebius* also in the time of his Aedileship, caused wheat to be sold vnto the people at the same rate, to wit, one Ass a Modius. For which cause, there were 2 statues also in memorial of him set vp; both in the Capitoll and also in Palatium: and himselfe when he was departed this life, had this honor done vnto him by the people, at his exequies, as to be carried on their shoulders to his funerall fire. It is reported moreover, That in the very same yeare wherein the great goddesse *Cybele* (called also the mother of the gods) was brought to Rome, there was a more plentifull haruest that Summer, and corn was at a lower price than had bin known in ten yeares before. Likewise, *M. Varro* hath left in writing, That when *L. Metellus* made shew of so many Elephants in his triumph at Rome, a Modius of good red wheat, was worth no more than one Ass; also a gallon of wine cost no more. And as for drie figges, thirty pound weight carried no higher price: and a man might haue bought a pound of Oile oliue, and 12 pound of flesh at the very same reckoning. And yet all this plenty and cheapnesse proceeded not from the great domains and large possessions of those priuate persons that incroched vpon their neighbors, and hemmed them within narrow compasse. For by the law published by *Stolo Licinius*, provided it was, that no Roman citizen should hold in priuat aboue five hundred acres. The rigor of which law or statute was extended and practised vpon the Law-maker himselfe, and by vertue thereof he was condemned: who, for to possesse aboue that proportion, and to defraud the meaning of the said Act, purchased more lands in the name of his Son. Loewhat might be the proportion and measure of possessions allowed euen then, when as the State and Common-wealth of Rome was in the prime and began to flourish. And as for the Oration verily of *M. Auius Curtius* after such triumphs of his, and when he had subdued and brought vnder the obeisance of the Roman Empire and laid to their dominion so many forrein nations; what it was, euery man knoweth, wherein he deliuered this speech, That he was not to be counted a good man, but a dangerous citizen, who could not content himselfe with a close of seven acres of ground. And to say a truth, after that the kings were banished out of Rome, and their regiment abolished, this was the very proportion of land assigned to a Roman Commoner. If this be so, What might be the cause of so great plenty & abundance afore-said in those daies? Certes, this & nothing els, great L.L. and generals of the field (as it should seem) tilled themselves their ground with their own hands: & the Earth again for her part, taking no small pleasure (as it were) to be eared and broken vp with ploughes Laureat, and ploughmen Triumphant, strained her selfe to yeeld increase to the vttermost. Like it is also, that these braue men and worthy personages were as curious in sowing a ground with corne, as in ordinance of a battell in array: as diligent (I say) in disposing and ordering

* Made with a red dog to pacifie the Dog-starre.

ring of their lands, as in pitching of a field: and commonly euery thing that commeth vnder G good hands, the more neat and cleane that the vsage thereof is, and the greater paines that is taken about it, the better it thriueh and prospereth afterwards. What shall we say more? was not [C. Attilius] Serranus (when the honorable dignity of Consulship was presented vnto him, with commission to conduet the Roman army) found sowing his own field and planting trees, whereupon he took that synname Serranus? As for Quintius Cincinnatus, a pursuuant or messenger of the Senat brought vnto him the letters patents of his Dictatorship, at what time as he was in proper person ploughing a piece of ground of his owne, containing foure acres and no more, which are now called Prata Quintiana, [i. Quintius his medowes] lying within the Vatican; and (as it is reported) not onely bare-headed was hee and open breasted, but also all naked and full of dust. The foresaid officer or sergeant taking him in this manner, Do on your cloths sir (quoth he) and couer your body, that I may deliuer vnto you the charge that I haue from the Senate and people of Rome. Where, note by the way, that such Pursuauants and Sergeants in those daies were named Viatores; for that estfoones they were sent to fetch both Senatours and Generall captaynes out of the fields where they were at worke: but now, see how the times be changed! They that doe this businesse in the field, what are they but bond-slaves fettered, condemned malefactors manacled, and in one word, noted persons, and such as are branded and marked in their visage with an hot yron? Howbeit the Earth, whom wee call our Mother, and whom wee would seem to worship, is not so deafe and sencelesse, but she knoweth well enough how shee is by them depriued of that honour which was done in old time vnto her: inso much, as wee may well weere, that against her will shee yeeldeth fruit as shee doth; howsoeuer wee would haue it thought, by these glorious titles giuen vnto her, that shee is nothing displeased therewith, namely, to be labored and wrought by such vile and base hirelings. But we forsooth do maruell, that the labor of these contemptible bondslaves and abiekt villains doth not render the like profit, as that trauell in former times of great captains and LL. Generalls. And in very truth, euen among other forrein nations, it was counted a princelike profession indeed, to be able for to giue rules and directions about Husbandry: for so we may see, that both kings haue studied this argument, as namely, Hiero, Philometor, Attalus, and Archelaus: and also martiall captaynes; to wit, Xenophon, and Mago the Carthaginian. As for Mago verily, our Senate did him that honour after Carthage was woon, that in sacking it and giuing away among diuers LL. of Affricke, the Libraries there found; they thought good to referue only 28 volumes of his, and penned by him as touching Agriculture, and so haue them translated into the Latin tongue (notwithstanding that M. Cato had already beforetime put out in writing and set forth certaine rules & precepts therof) giuing order for this translation, to those that were well seene in the Punicke or Carthaginian language: in which businesse, D. Syllanus a Romane gentleman of a right worshipfull house, went beyond all others. As for great schollers and men of profound and deep learning, a number there were besides that trauelled in this matter, whom wee haue named already in the forefront; and estfoones shall mention in the discourse of this volume. In which range we must nominate not vnthankfully among the meanest writers, M. Varro, who beeing fourescore yeares old and one, thought it not amisse to compile a speciaall booke and treatise of Husbandry.

CHAP. IIII.

¶ The manner of Husbandry in antient time.

L Ate it was ere the Romans began to set their minds vpon Vines and Vineyards: for at first they tilled only corne fields for very necessitie, euen as much as might suffice to serue the city. The order and manner whereof, I will set in hand to treat of; not after a vulgar and common sort, but according to my vsuall manner hitherto more soundly: as hauing sought out with all care and diligence, not only the antient practise in times past, but the inuentions also of late daies; & withal searched into the causes and reasons of euery thing, and found them out. My purpose is besides, to speake in this treatise of the fixed Starres; their rising and setting, M their apparition and occultation, together with their influences, as they are vndoubtedly obserued and seen here vpon earth. And this, my meaning is to do after a plain and familiar sort, forasmuch as they, who hitherto wrote of this argument, haue handled the same so subtilly, and penned

A penned it with so high a stile, as they may seeme to any man for to haue written books for Oratours to reade, rather than to the capacity of plaine husbandmen for to practise. First and foremost therefore, I will for the most part deale by Oracles, that is to say, sententious Sawes, for to determine this question in hand: concerning which, there are as many to be found in number, and those as true in effect, as in any other part and profession of this our life whatsoeuer. And least any man should think it strange, that I call these rules of Husbandrie, Oracles; who would take them for lesse, considering how they proceed from Time, a god most certaine, and are deliuered and approoued by Experience, the truest prophet of all others. And beginne I will with Cato first.

CHAP. V.

B ¶ The praise and commendation of Husbandmen: what things are to be required in the purchasing or taking to ferme of house and land.

T He children (saith Cato) that are begotten by husbandmen, proue most valiant, the hardiest souldiers, and such as thinke least harme of all others. In buying of land, take heed you be not too hot and eager vpon the purchase. In the husbanding of ground, spare for no paine and trauell; but in the purchasing thereof be you nothing forward: a thing ouer-bought, hath euer more repentance, and had I wist, attending vpon it. They that are about a purchase, ought about all, to see how the ground is watered, what waies and auenues be about it, and what neighbors be neare vnto it. Out of euery one of these points, matters of great importance and deepe conclusions may be picked, and those most certaine and infallible. Cato addeth moreouer and saith, That there would be good regard had of the people confining, and other grounds bounding thereupon, whether they be well liking, faire, and trim to see vnto? For these be his words, It is a good signe (quoth he) that the ferme is well seated and in a commodious quarter, if all about looke well. Attilius Regulus (hee who during the first Punicke warre was twice Consul of Rome) was wont to say, That a man should not purchase an vnwholesome piece of land, were it neuer so rich and fruitfull, nor make choice of a barren soile, were it neuer so healthie. Now as touching the healthfulnesse of a place, a man may not alwaies conclude therof by the color and fresh hue of the inhabitants: for many times it falleth out, that those who be vsed to pestilent places, hold out well and haue their health; yea and by their lookes bewray no harme that they take. Moreouer, some quarters and coasts there be, which at some times of the yeare stand sound and healthy enough: but I will count none wholesome, but such as be healthfull all the yere long. An ill piece of land is that, which putteth the lord thereof to paine, and with which he is forced to wrestle for to haue his health. Cato would haue this point especially to be considered, that the soile of a ferme (scituate as hath bin said) be good of it selfe, and fertile: also, that neere vnto it there be store of laborers: and that it bee not farre from a good and strong towne: moreouer, that it hath sufficient meanes for transporting of the commodities which it yeeldeth, either by vessels vpon water, or otherwise by waies vpon the land. Furthermore, that the manour house be well built, and the land about it as well husbanded. Howbeit, herein I see many men to erre much, and greatly to be deceived: for they hold opinion, that the negligence and ill husbandry of the former lord, is good for him that shall purchase land and come after him. But I say, there is nothing more dangerous and disadvantageous to the buyer, than land so left wast and out of heart: and therefore Cato giueth good counsell, to purchase land of a good husband; and not rashly and hand ouer head to despise and set light by the skil and knowledge of another. Who saith moreouer, That as well land as men (which are of great charge and expence) how gainefull soeuer they may seeme to be, yeeld not much profit in the end to the master declaro, when all counts be cast and reckonings made. He therfore judgeth, that the Vine yeeldeth the best reuenue, of all commodities belonging to a ferme: and good reason he hath so to say, because about all things he taketh order to cut off expence as much as may be. Next to it, he reckoneth Hortyards, such especially as haue water at command: and good cause why, provided alwaies that they lie vnder a good towne side. [In the third place he rangeth the Olier plots, and after them Olive rewes:] then he counteth of medows, which our ancestors called Parata; as a man would say, Ready and provided. The same Cato being asked, What was the most assured profit rising out of land; made this answer, To feed Cattell well: beeing asked againe, VWhat was the next? Marie (quoth hee) to feed in a meane. By which answers he would seeme to conclude, That the

most certain and sure reuennue was that, which would cost least. Howbeit, this is not so generall a rule, but it may alter according to the diuersitie of places, & sundry occasions occurrent. Herunto also is to be referred another speech of his, That a good husbandman ought to be a seller, [and not a buyer:] as also, That a man should make speed in his youth, and not delay to plant and stocke his ground, but not to build thereupon, before it be well and thoroughly stored that way: and euen then also, he should not be forward thereto, but take leifure ere he be a builder: for it is the best thing in the world (according to the common prouerbe) To make vse and reap profit of other mens follies: prouided alwaies, that a mans land be not ouer-built, lest the expence of keeping all in good repaire, be chargeable and burdensome. Now when there is a sufficient and competent house builded thereupon, a good husband will vse to repaire often thereunto, and take pleasure so to do: and verily a true saying it is, That the lords eie is far better for the land, than his heele.

CHAP. VI.

¶ How to chuse a conuenient place for to build a manour house in the country. Also certain rules obserued in ancient time, as touching Husbandrie and tilling ground.

IN building vpon a mans land, this mean and moderation is commended, That the house be answerable in proportion to the ground: for as it is a bad sight to see a large domain and circuit of ground without a sufficient graunge or home-stal to it; so it is as great a folly to ouer-build the same, & to make a faire house where there is not land enough lying to it. Like as there were two men at one time liuing, who faulted diuersly in this behalfe, to wit, *L. Lucullus* and *Q. Scaiola*, for the one was possessed of faire lands without competent building thereto, whereas *Lucullus* contrariwise built a goodly house in the country, with little or no liuing adjoining to it: in which regard, checked he was by the Censors, for sweeping more floures than he ploughed lands. Now in building, there would be art and cunning shewed: for euen of late daies *C. Marins* (who had bin seven times Consull of Rome) was the last man that built an house within the territory of the cape Misenum, and he seated it so, as if he had pitched & fortified a camp right skilfully, in such sort, that when *Sylla* (synamed *Felix* [i. Happy]) saw his manner of building, he gaue out and said, That all the rest in comparison of him, were blind beetles, and knew neither how to build nor to encamp. Well then, a house in the country would be set neither neere vnto a fenny and dormant water, ne yet ouer-against the course and stream of a running riuer: and yet what saith *Homer* besides to this purpose? The aire and mists (quoth he, and that right truly) arising from a great riuer betimes in a morning before day-light, cannot chuse but be euer cold and vnholefome. How then? may if the country or climat be hot, an house must stand into the North; but in case the quarter be cold, it ought to affront the South: if the tract be temperate between both, it should lie open vpon the East point, where the Sun riseth at the Equinoxes.

As touching the goodnesse of the soile, and namely what signes and marks there be of it; although I may seem to haue sufficiently spoken already, in the discourse which I had of the best kind of ground, yet I am content to subscribe to other tokens thereof deliuered by other men, and especially by *Cato* in these words following: *When you see* (quoth hee) *growing vpon any land, store of Walwort, Skeg trees, Brambles, the little wild Bulbous Crow-toes, [called otherwise our Ladies Cowslips] Clauer-grasse or Trifoile, Melilot, Oke, wilde Pyrries, and Crab-trees; know yee, that these doe shew a ground good for Wheat, and such like white-corne.* So doth also the blacke mould and that of ashes colour, telltise no lesse. Where there is store of chalke or plaister, the ground is not so fit for corne; for all kinde of chalke doth heat ouermuch, vntill the same be very leane. The like doth sand also, if it be not passing fine and small. And the effects abouesaid are much more seen in the plaines and champaine vallies, than vpon the hills and mountaines. Our ancestours in old time thought it a principall point of Husbandrie, not to haue ouermuch ground about one graunge: for they supposed more profit grew by sowing lesse, and tilling it better: of which mind I perceiue *Virgil* was. And to say a truth, confesse we must needs, That these large enclosures and great domains held by priuat persons, haue long since bin the ruine of Italie, and of late daies haue vndone the prouinces also thereto belonging. Six Land-lords there were and no more, that possessed the one moitie of all Africke, at what time as the Emperour *Nero* defeated

A and put them to death. Where, by the way, I may not defraud *C. Pompeius* of the due glory answerable to that greatnesse of his, who neuer in all his life would purchase any ground that bordered vpon his owne land. *Mago* thought it no reason, but a very vngentle and vnkind part for the buying of land, to sell a mansion house; and in his conceit, it prouided much the weale publicke. And verily this was the principall point that he recommended in the entrance of his treatise and rules set downe for Husbandrie, so as a man might perceiue very evidently, that hee required continuall residence vpon the land. Next to these principles abouesaid, great regard would be had in chusing of good & skilful bayliffs of the husbandrie, concerning whom *Cato* hath giuen many rules. For mine own part, it shal suffice to say thus much only, that the lord ought to loue his bayliffe very well, & fer him next to his heart; but himself should not B let him know so much. Moreover, I hold it the worst thing that is, to set slaves & condemned persons in their gyues & chains, about tilling and husbanding of a ferme: neither do I like of any thing don by such forlorne and hopelesse persons, for lightly nothing thrives vnder their hand. I would put down one saying more of our ancient forefathers, but that haply it may seeme a fond & rash speech, yea and altogether incredible, & that is this, *Nothing is lesse profitable, or expeditious, than to labor a ground exceeding much, and to ouer-till it.* *L. Rarius Rufus*, a man of very bafe and low parentage descended; & yet aduanced to the Consular dignity for his prowesse in feares of arms; was otherwise very thrifty and sparing, after the maner of the old world, in so much as partly by his niggardise and partly through the liberality of *Augustus Caesar*, he had gathered good together amounting to the sum of an hundred millions of Sesterces: all which masse of money, what with purchasing land to land in the Picene country, and what with bestowing such a deale of husbandrie vpon it, more ywis of a vain glory and ostentation, than for any profit that he reaped thereby, he laid forth and spent euery whit of that stock, in so much as hardly he could finde any man that would take vpon him to be his executor, or to accept simply of the inheritance. What shall we say then, or what good commeth of such houses or lands so chargeable, as that they are like to cost a man his life, and that by famine? I hold therefore, that in all things a man is best, and bringeth greatest profit in the end. To till and husband ground well, is necessary, to C ouer-do the same and to exceed, turneth more to the damage than the profit of the land, vntill it were done by his own children, or to maintain the charge of keeping such hinds as otherwise must be found if they sat still and did nothing: for setting that cause aside, it falleth out often times, that the gathering and inning of some hartest (if a man count all the paines employed, and the money of the purse) is nothing beneficiall to the master. In like maner, Oliues would not alwaies be tended and looked vnto ouermuch: neither do some grounds require much diligence, but are the worse for such attendance: as may be seen (by report) in Sicily, which is the cause that new comers thither for to be tenants, and to occupy those lands, are many times deceived and put besides their reckoning.

After what manner then shall we proceed in the husbandrie of our land to most benefit and behoofe? Learn a rule out of the Oracle or sententious riddle, which goeth in this forme, *Makis* [i. Cheapst, Best.] But herein, me thinks, good reason it is, that our old great grandfathers should be defended and excused for holding these strange and obscure paradoxes; they (I say) who by such rules and precepts, tooke great care and paines to instruct vs how to liue. Would you know then what they meant by this word *Makis*? surely they vnderstood those that were cheapest and stood them in least. The chiefe point of all their prouidence and forecast, was to goe the nearest way to worke, and to be at the smallest cost: and no marvell, for who were they that gaue out these thrifftie precepts? euen those who reproched a victorious General (and one who triumphed ouer the enemy) for hauing a cupbord of silver plate weighing but ten pound: those (I say) who if their bayliffes of husbandrie chanced to die, whereby their lands in the countrey stood void, would make suit to be gone themselves thither, and to return to their own fermes; leauing behind them the glory of all their victories by them attained: and to conclude, euen those who whiles they were employed in the conduct of armies, had their grounds looked vnto and tilled at the charges of the common weale, and had no other for their bayliffes than the noble Senators of Rome. From their mouths came these other oracles and wise sentences following: *All husband and he, who is forced to buy that, which his ferme might afford him.* As bad is that householder & master of a family, who doth that in the day which might be don by night, vntill an vnseasonable weather driue him to it: worse than either of these is he, who doth

doth that vpon work-daies which should haue bin done on play daies or idle holidais: but the worst of all other is he, who when the weather is fair, wil chuse to work rather within close house than abroad in the open field: & here I cannot hold and rule my selfe, but I must needs alledge one example out of antient histories, whereby it may be vnderstood, How it was an ordinary matter to commende actions and to maintaine pleas in open court before the body of the people in the case of Husbandry: as also in what sort those good Husbandmen of old time were wont to defend their owne cause when they were brought into question. And this was the case. There was one *C. Furius Cresinus*, late a bond-slave, and newly enfranchised, who after that hee was set at liberty, purchased a very little piece of ground, out of which he gathered much more commodity than all his neighbors about him out of their great and large possessions: whereupon he grew to be greatly enuid and hated; inso much, as they charged him with indiret means, as if he had vsed forcery, and by charmes and witch-craft drawne into his owne ground that increase of fruits, which should otherwise haue growne in his neighbors fields. Thus vpon complaint and information giuen, he was presented and indited, by *Spurius Albinus*, an *Aedile Curule* for the time being: and a day was set him down peremptorily for his personal appearance to answer the matter. He therefore fearing the worst, and doubting that he should be cast to pay some grieuous fine; at what time as the Tribes were ready to giue their voices, either to acquit or condemne him, brought into the common place his plough, with other instruments and furniture belonging to husbandry: he presented likewise in the open face of the court, his owne daughter, a lusty strong lasse and big of bone; yea, and (as *Piso* telleth the tale) well fed, and as well clad: he shewed there (I say) his tooles and plough yrons of the best making, and kept in as good order; maine and heavy coulters, strong and rough spades, massie and weighty plough-shares, and withall his draught Oxen, ful and faire. Now, when his course came to plead his owne cause before the people, and to answer for himselfe, thus he began and said: My masters (quoth he) you that are citizens of Rome, behold, these are the forceries, charmes, and all the enchantments that I vse (pointing to his daughter, his oxen & furniture abouenamed:) I might besides (quoth he) alledge mine owne traueil and toile that I take, the early rising and late sitting vp so ordinary with me, the carefull watching that I vsually abide, and the painefull sweats which I daily indure; but I am not able to represent these to your view, nor to bring them hither with me into this assembly. The people no sooner hard this plea of his, but with one voice they all acquit him and declared him vnguilty, without any contradiction. By which example verily, a man may soone see, that good husbandrie goeth not all by much expence: but it is pains taking and careful diligence that doth the deed. And hereupon came the old sayd saw, so rise in euery mans mouth, that the only thing to make ground most fertile and fruitfull, is the Masters eie. As for all other rules and precepts of Agriculture, respectiue to this or that peculiar point of husbandry, I will deliuer them in their proper places accordingly. And in the meane time I wil not omit such as be more general, as they shal come into my mind and remembrance. First and formost, there offereth it selfe to me one about the rest, wherof *Cato* is the Author, and which of all others I hold to be most profitable and sounding to ciuilitie; to wit, that in all our doings we aime at this, To haue the loue and good will of our neighbors: and that for many and sufficient reasons by him alledged, which I suppose no man will make any doubt of. *Imprimis*, hee giueth a good caueat, That our seruitors and people about vs be not shrewd, but well ordered, and that none of our family be ill disposed to offer any wrong. *Item*, All good husbands agree in this, that nothing would be done too late and when the time is ouerhight. And againe, That euery worke should haue the due and conuenient season: to the same effect there is a third admonition, namely, That when the opportunity is once past, in vain we seek to recall and recouer it. As touching a rotten and putrified ground, we haue at large shewed already how much *Cato* doth abhor and curse it. And yet he ceaseth not to forewarne vs of it, and besides, to giue vs these rules following. What work soeuer may be performed by a poore Ass, is thought to cost little or nothing, and to be done very cheape. Ferne or Brake will die at the root in two yeares, if you wil not suffer it to branch and grow about ground: and this shall you hinder most effectually, in case you knap off the head of the first spring with a wand or walking staffe: for the liquid iuice dropping downe from them, doth kill the root. It is commonly said also, that if they be pulled vp about the summer Sun-heat, they will not come againe but die: as also, if they be topt, or their heads whipt off with a reed: or if they be eared vp with the plough, so as there be a reed fastened to the share.

A share. Semblably, for to kill reeds, they giue order to plough them vp, with some Fern likewise laid vpon the share. A rushe ground must be broken vp and turned ouer & ouer with the broad spade: but if it be stony, it would be digged with a mattock or two tined fork. Rough grounds and giuen to beare shrubs, if a man would stork; the best way is to burne them vp by the roots. If the place lie low, and be ouer moist, the onely meanes to make it found and drie, is to draine away the water by trenching. In case a ground doe stand vpon chalker or plaister, the ditches or trenches therein should be left wide open; but if the soile be more loose & not so fast, they must be strengthened and kept vp with quick-set hedges, for feare of falling; or else they ought to be made in such sort, as both the sides thereof be well bedded and couched, bearing out a belly a slope, and not digged plumb downe right. Some would be closed vp above and made very strait and narrow, for to run directly into others that are more wide and large also, if occasion doe so require, the bottome of their channell would be paved with pebble, or laied with good grauell. As for the mouth and end thereof (to wit, for entrance and issue) they ought both of them to be fortified and vnderfet with two stones at either side, and a third laied crosse ouer them. Last of all, if a ground run to wood and be ouergrowne therewith, *Democritus* hath taught vs the means how to kill the same in this manner, Take Lupine floures, let them be steeped one whole day in the iuice of Hemlock, and therewith besprinkle and drench the roots of the shrubs, that ouer-run the place, and they will die.

CHAP. VII.

¶ Sundry sorts of corne, and their severall natures.

NOW that we haue thus shewed the way how to prepare a field for to beare corne, it remaineth to declare the nature of corne. And to speake generally of all graine, there are two principall kinds thereof; to wit, first Fourment, containing vnder it wheat and Barley, and such like: secondly, Pulse, comprising Beans, Pease, Chiches, &c. The difference obserued both in the one sort and the other, is so euident and plaine, that needlesse it is for me to vse any words thereof. And as for the former kind called Fourment, it is diuided also into sundry sorts, according to the severall seasons wherein they be sowne. First there is the Winter corn, which being sowed about the setting of the star Virgilia, i. in Nouember, lieth all winter long in the ground and there is nourished, as for example, Wheat, Rie, and barley. Secondly, Summer corne, which is put into the earth in Summer about the rising of the foresaid star Virgilia. The Brood-hen, to wit, in May; namely, Millet, Panick, Horminum, and Irio (two kinds of grain.) But note that I speake here of the manner vsed in Italy. For otherwise in Grece and Asia, they sow all indifferently at the retrait or occultation of Virgilia: and to come again to our Italy, some grain there is which is sown there, both in Winter and Summer: as also, you shall haue other corne sowed in a third season; to wit, in the Spring. Some there be who take for Spring-corn, Millet, Panick, Lentils, eich Pease, and the grain wherof * Fourmenty is made. But Wheat, Barley, Beans, Naves, Turneps, and Rapes, they hold for Sementina, i. to be sowed at the proper and timely season of seeds, i. in Autumne. In that kind of corne which comprehendeth Wheat, there is to be reckoned that grain which serueth for prouender and forrage, and is sown for beasts, & namely, that which they call dredge or ballimong. Likewise, in the other kind, to wit, of Pulse, the Vetches be comprised: but that which is good indifferently both for man and beast, is the Lupine. All sorts of Pulse called in Latine Legumina, vnlesse it be the Bean, haue but one root apiece, and such be as hard as wood, and full of shoots, and those diuided into forked branches: and the roots of the eich Pease run deepest into the ground. But all other corne vnder the name of Frumenta, haue many small fillets or strings appendant to the roots, & otherwise branch not: as for Barly, it chitteth and begins to shew within 7 daies after it is first sowne. All sorts of Pulse appeare about ground by the fourth day or the fift at the vtmost. And yet Beans ordinarily do lie in the ground 15 or 20 daies. How soeuer in Egypt all Pulse commeth vp by the third day. In Barly, one end of the seed runneth to root downward, and the other into blade, and that * bloometh first. Now, if you would know which end serueth for the one and the other, certaine it is, that the bigger and thicker part of the grain yeeldeth root, and the smaller the Greene blade. In all other seeds there is no such diuersitie, for from one and the same end breaketh out both root and Greene blade. All kind of corn carying spike or eare, called Frumenta, shew nothing but the green blade during winter: howbeit, no sooner commeth the spring, but they begin to grow vp.

* No manuell being sowed before winter.

into straw, and to spindell vppward pointwise, I meane all that be of the winter kind. But Millet G and Panick run vp into an hollow stem full of knots and ioyns, and Sefama by it self into a keel or hollow stem in maner of fenell and such like. The fruit or seed of all graine that is sowne or set, is contained within eares, as we see in (bearded) wheat and barley, and the same is defended as it were with a palisade of eales, disposed square in foure ranks; or is inclosed within long eods and husks, as the Pulse kind, for els lieth in little cups, as Sefame and Poppie. Millet and Panick only put forth their fruit grape-wise and openly, without any partitions and defences, so as their seed is exposed to the little birds of the aire: for no otherwise are they defended, than within small skins and thin huls. And as for Panick, it taketh the name of certain panicles or chats hanging from the top thereof, whereby the head bendeth and leaneth downward, as if it were weake and wearie of the burden. The stem or stalk thereof groweth smaller and smaller, H and pointed vppward: inso much as by little and little it runneth vp in maner of a little sprig, or sion, and there you shall see a number of seeds or grains clustered together thicke, inso much as they are sometimes bunched with an head a good foot long. As touching the Millet, the head thereof bearing seed round about is bent likewise and curbed, befer also with fringes, as it were, of hairy fillets. But to return to Panick againe, there be sundry sorts thereof: for some of it is found with a tuft or bunch, from which depend certain small clustered chats or panicles, & the same also hath two knaps or heads, and this is called Mammosum, as one would say, the Panick with bigs or dugs. Moreouer, you shall haue Panick seed of sundry colours, white, blacke, and red, yea and purple. Of Mill or Millet there be diuers sorts of bread made in many places; but of panick it is not so common: howbeit there is no grain more ponderous and weighty than it, I or which in the seething or baking swelleth and riseth more; for, out of one Modius or pecke thereof there is ordinarily made 60 pound of dough for bread. Moreouer, take but 3 sextares or quarts of it being steeped, and it will yeeld a measure called Modius, of thicke gruel or batter, called in Latine Puls. It is not fully ten yeres since there was a kind of * Millet brought out of India into Italy, and the same was of colour black, the seed or grain in quantitie big and faire, and for stem like vnto a reed. It riseth vp in height seuen foot: the stalks are mighty and great, some call them Lobæ or Phobæ. Of all sorts of corne it is most fruitfull, and yeeldeth greatest increase: for of one grain a man shal haue 3 sextars or quarts again. But it loueth, yea & ought to be sown in a moist soile.

* Turkish Millet.

Moreouer, some kinds of spiked corn begin to spindell and gather eare at the third ioyn, others at the fourth: but there it lieth as yet hidden and inclosed. Now as touching these joints, wheat beareth vsually foure, beere Barly six, and the common sprit Barly eight, which is wel to be considered: for no corn vseth to spier before it be fully knotted or ioined in maner abovesaid. And so soon as the said spier sheweth some hope of an eare, within 4 or fise daies after at the most, they begin to bloum: and in as many dayes space, or little more, they will haue done and shed their floures. And yet I must needs say, that all sorts of barley are a seuen night at the vtmost in so doing. Varro saith, that in foure times 9 daies this kind of corn commeth to perfection: but it ought to stay nine moneths before it be ripe for to be reaped and mowne downe. As for Beanes, after they be set or cast into the ground, first they put forth leafe, and afterward stalk, that shooteth vp euen, without any partition of ioyns or knots between. All other pulse besides the Bean, haue a more sollid and woody substance in the straw. Of which, the Chich pease, the Ervile, and Lentils doe spred forth in branches. And some of them runne so low that they creep along the ground, vnlesse they be born vp and supported with some props, as for example Pease, which help if they misse they proue the worse for it. Of all manner of Pulse, the Beane alone and Lupine beare but one single stalke apiece: the rest doe branch into very small sprigs or tendrils. Howbeit none of them but their stalke or straw is fistulous and hollow in maner of reeds. Some pulse put out leaues presently from the root: others again from the top or head only: wheat and Barly both the one and the other; and what corn fouer standeth vpon a stalk, beareth one leafe in the head or top thereof. But the leaues of Barly are rough, whereas in other corn they be smooth. Contrariwise, Beanes, Chiches, and Pease haue many leaues. In spiked corn the leafe resembleth that which groweth to reeds: in Beans they be round, and so likewise in the most kinds of puls, howbeit in pease and Ervile we see they be somewhat longer. The leaues of Fafels or Kidney beanes are ribbed and full of veins: of Sefama and * Irio they be red and resemble blood. The Lupines only and the Poppies do shed their leaues. All pulse

* Turkish corne.

- A pulse is long in the bloom, and namely Ervile and the Chich pease; but Beanes continue longest, euen for the space of 40 daies together: howbeit euery single stalk beareth not bloom so long: but thus it is, as one hath done and giuen puer, another beginneth afresh. Neither bloumeth the whole field at once, as spiked corn doth. Also, all kinds of Pulse doe cod at fundrie times, and not vpon the same day: beginning first at the bottome, and so likewise the floure riseth vpp higher by little and little. All come growing in spike or eare, so toone as it hath done blooming, waxeth big and strong, and commeth to maturitie within forty daies at the farthest: so doth Beanes also: but the Chich pease receiueth her full perfection in very few daies: for, from the time that it was first sowed, it groweth to be ripe in forty daies. Millet, Panick, Sefame, and all Summer corn, haue their full ripenesse forty daies after their blooming. But herein there is B great diuersitie, according to the clyme and the soile: in which respects corne ripeneth sooner or later. For in Ægypt Barley is readie to be reaped in the sixt moneth after it was sowne, and Wheat in seuen: but in the region of Hellas in Greece, the Barley tarieth seuen moneths; and in Peloponnesus or Morca, eight. As for wheat and such like hard corne, longer it is ere it be ripe and ready for the sycle. All Corne that groweth aloft vpon a stalke or straw, beareth the graines arranged spikewise, and as if they were plaited and braided like a border of haire. In Bean stalks and other such like pulse, the eods grow in alternatiue course, some on the right side, others on the left, in order. Wheat and such like spiked corne withstand the winter cold better than Pulse: but these yeeld a stronger food, and fill the belly sooner. Wheat, Rie, and such like grain are well wrapped within many tunicles. Barley for the most part lieth bare and naked: so doth Arinea [i.e. a kind of Rice or Amel corn] and Oats especially. The straw of wheat and Rie is commonly taller than that of Barly. But the eiles of Barley are more rough and prickie than those of the other. Polwheat both red and white, yea and Barley also, is threshed and driuen out of the husk vpon a floore, and being thus threshed clean and pure, it is either ground or sowne againe without any parching or drying in a furnace. Contrariwise, the Beare corne or Bearded wheat, Far, Millet, and Panick, cannot possibly be made clean, vnlesse they be first sendged and soldried. These sorts of grain therefore vse to be sowed raw and rude with their very huls: like as the Beare corne or bearded Far men are wont to keep still inclosed within the husk against seed time, and neuer parch or dry it at the fire. Of all the sorts of grain before rehearsed, Barley is the lightest; for a Modius or pecke thereof seldome weigheth aboue 15 pounds, whereas the like measure of Beanes poiseth 22. The bearded corne Far is yet more ponderous than it, and Wheat more than all the rest. In Ægypt they vse to make certain frumenty meat or naked grotes of a kind of Rice or white Amel corn, called Olyra, which is among them holden for the third sort of Spike corne. In Gaule likewise they haue a kinde of frumentie corne or gurts by themselves, named in their language Brance, and with vs in Italy and about Rome, Sandalum: this grain is of all others most neat and faire, and this singular propertie it hath besides different from the rest. That ordinarily in euery measure called Modius, it yeeldeth more bread by foure pound weight than any other corne husked and dressed in maner aforesaid. Varro reporteth, That the people of Rome for 300 yeres together vsed no other meat than the grotes made of common Wheat. And as touching Wheat, there be many sorts thereof, distinguished by the names of the Regions and countries where they be found growing. Howbeit for my part I thinke verily, that there is no wheat in the world comparable to ours here in Italy, for it surpasseth all others both in whitenesse and also in weight: by which two marks especially, as it is knowne from the rest, so it is reputed for the very best. And if you take the wheat growing in the mountain countries of Italy, the best haply of forrein regions may match it, and that is the wheat of Boeotia: the principall of all others next to it, is that which growes in Sicily; and then that of Africk may be ranged in the last place: in a third rank is to be reckoned the Thracian and Syrian Wheat, and after them the Ægyptian; in regard of the weight that it carieth. Now these degrees of weight we gather by the proportion assigned to champions and wrestlers, whose allowance was much like to the liurie giuen to laboring horses, and as much in maner would their paunches both require and receiue: for according as they could eate of the one sort more measures than of the other, so arose these distinct degrees in the weight abovesaid. The Greeks make great account of the Wheat growing by Pontus, and highly commend it: but this neuer came into Italy, neither know wee what it is. The same Grecians preferred before all other grain, these three sorts, to wit, Dracontias, Strangias, and Selinufium; esteeming

* For whereas of the Athenian Wheat, five demy Sextars (i.e. two quarts and a half) were sufficient, three would serue and content them of the Boeotian (i.e. a quart & half) whereby it was collected, how much weightier this was than that.

ming the goodnesse of the corn by the thicknesse and bignes of the straw, and attributing these three kinds by that signe and argument, to the goodnesse and riches of the soile: and therefore they prescribed to sow this corn in a fat and battle ground. But the lightest in weight and poorest in substance, because it required much nutriment, they appointed to be sowed in moist places. Of this opinion and judgment were the antient Greeks, during the reign of Alexander the Great, at what time as Greece was in the flour and height of her glory, as hauing the monarchie and soueraignty ouer the whole world. Howbeit, before his death 145 yeares or thereabout, *Sophocles* the Poet in a Tragedie entituled *Triptolemus*, praised the Italian wheat above all other: for in effect thus he saith word for word,

Et fortunatam Italian frumento canere candido.

And Italy, a land (I say) so happy and so blest,
Where stand the fields all hoare and gray with white Wheat of the best.

And in very truth our Italian wheat at this day carrieth the name alone in that regard. I wonder therefore so much the more at the modern Greeks of late time, who made no mention at all of this our wheat. Now at this present, of all those kinds of outlandish wheat which are transported by sea into Italy, the lightest is that which cometh out of France and Cheronesus, [i.e. the streits of Callipolis] for a Modius or peck thereof containeth not about 20 pound weight, weigh the very graine it selfe as it groweth, vncleaned, huske and all. The Sardinian wheat is more weighty than it by halfe a pound in a Modius. And that of Alexandria exceedeth the French halfe a pound and *one third part, in euery measure before named. And this is the very poise also of the Sicilian wheat. The Boeotian is yet a full pound heauier: and that of Africk as much, and *three fourth parts of a pound more. In Lombardy & that tract of Italy beyond the riuer Po, I know full well that a Modius of their wheat weighed 25 pounds; and about Clusium 26. But be the corn whatsoeuer it will, this is the ordinarie proportion by the course of Nature, that being made into down-right household bread for soldiers, and to serue the campe, it ought to weigh as much as it did in corne, and one third part ouer and above. As also this is a rule, That the best Wheat is that which to euery Modius will take and drink vp a gallon of water ere it be made dough. And yet some kindes of Wheat there be that will yeeld the full weight aforesaid in bread, and neuer count the water going thereto, & namely that which cometh out of the Balear Islands; for a Modius of that wheat yeeldeth in bread 30 pound weight: yet otherwhiles it falleth out in some kindes of wheat (being blended two sorts together, as namely that of Cyprus and Alexandria, whereof neither exceed little or nothing more than 20 pound weight to the Modius) that the bread made thereof will arise to the ordinary proportion: for the Cyprian wheat is not bright, but brown and dusky, and therefore makes a blacke kind of bread; in which regard the Alexandrian wheat, which is faire and white, is mixed with it, and so both together do yeeld in bread 25 pound weight. The wheat of Thebes addeth a surplusage thereto of one pound.

As for the manner of working and kneading dough, I like not their fashions who take sea water for that purpose, as most do that inhabit the sea coasts, thinking thereby to saue the charge of salt; for I hold this very hurtfull and dangerous. Neither doe I thinke, that vpon any other cause mens bodies are made more subiect to maladies, than by this means. In France & Spain, when the Bruers haue steeped their wheat or frument in water, and masht it for their *drink of diuers sorts, as heretofore hath bin shewed; they take the *skum or froth that gathereth aloft by the working of the wort, and vie the same in stead of leuen for to make their bread; which is the reason that their bread is lighter and more hounded vp than any other.

Moreover, there is great difference in wheat by reason of the straw or stalk that bears it: for the thicker that it is and more full, the better is the corne taken to be. The Thracian wheat is inclosed and well clad (as it were) with many tunicles and coats; thoroughly prouided by that means (and good cause why) to resist the excessive cold of that climat, which gaue the Thracians iust occasion also to cast about and deuise to haue a kind of wheat that remaineth vpon the ground not about three moneths, by reason that the snow ouerspreadeth the face of the earth all the yeare besides: and verily this kinde of corne is come into other parts of the world, and slightly within three moneths after it is sowed, you shall haue it readie to be reaped. A practise

* 1.4 ounces.

* 2.9 ounces.

* Zythum & curmi.
Yest or baren

A Alike well knowne all the Alpes ouer, and in other cold and winterly regions, where (by report of the inhabitants) this kind of corne doth wondrous well, and none prospereth better or groweth more ranke than it. Ouere and besides, there is another kind of wheat that putteth vp from euery root one stalk and no more in any place whatsoeuer: the manner is to sow it in no ground but that which is light, and it neuer misleth. Also about the Thracian gulfe, there is wheat that within 40 daies after the sowing will be ripe, and therupon it is called the Two-month wheat. And would you heare a wonder? there is no wheat more weighty than it, and besides it yeelds no branne at all. In Sicilie and Achaia both, there is great vie thereof, and namely among the mountaineers of those two countries. Much seeking also there is after that corne in the Isle Euboea, about Carystus. See how much *Columella* was deceived, who thought that there was not to be found so much as any kind of three months wheat; whereas it is plaine, that such hath bene of old and time out of mind. The Greeks also haue a proper name for it, and call it Trimenon. Furthermore, it is reported, that in the countrey Baetria, there is some corne of that bignes, that euery graine is full as much as one of the eares of ours.

But to returne againe to our husbandry: of all spiked corne, Barley is sowed first: but I purpose to set down the very iust time and season appropriat to each kind, according to the feeral nature of euery sort, which my meaning also is to declare. Mean while I cannot omit, that there is among the Indians, barley both sowne and also wild, whereof they make the best bread that they haue. As for vs Italians (to say a truth) we set most store by rice, whereof (being husked and cleaned) we make grotes, like for all the world to those which other men besides doe make of barley husked. The leaves verily that this graine Rice doth beare, be pulpos and fleshy, resembling Porret or Leeks, but that they be broader: the stem groweth a cubit high, the flour is of purple colour, and the root round like a jem or pearle.

Barley [husked] was the most ancient meat in old time, as may appeare by the ordinarie custome of the Athenians (according to the testimonie of *Menander*) as also by the addition or surname given to sword-fencers, who vpon their allowance or pension given them in barley, were called *Hordarij*, [i.e. Barley-men.]. The ordinarie drie grout or meale also Polenta, which the Greeks so highly commend, was made of nothing els but of barley: and the preparing thereof was after sundrie waies. The manner that the Greeks vsed, was first to steepe the barley in water, and giue it one nights drying, the morrow after they parched or fried it, and then ground it in a mill. Others there be, who (when it is well fried and parched hard) besprinkle it once againe with a litle water, and then dry it before it be ground. There are some again, who take the eares of barley when they are green, beat & driue the corn out, and while it is fresh and new, cleanse it pure, which don, they infuse it in water, and while it is wet, bray it in a mortar: then, they wash it well in oser paniers, and so let the water run from it; and being dried in the sun, they pound or stamp it againe, and being thoroughly husked and cleansed, grind it into meale as is aforesaid. Now when it is thus prepared one way or other, to twenty pound of this barley they put of Line seed three pound, of Coriander seed halfe a pound, of salt about two * ounces and two drams; and after they haue pearched them all well, they blend them together and grind them in a quern. They that would haue this meale to keep long, put vp into new earthen vessels all together both flour and bran. But in Italy they neuer vse to steep or soke it in water, but presently parch it, and grind it smal into a fine meale, putting thereto the former ingredients, and the graine of Millet besides.

As for bread of Barley, so much vsed of our forefathers in old time, the posterity that liued after, found to be naught and condemned it in such sort, as they allowed it for prouender only to feed their beasts and cattel with. But in stead thereof came vp the vse of * husked barley to be foddren for grewell; so highly commended as a most nutritiue and strong meat; and withal, passing wholesome for mans bodie: in so much as *Hippocrates* (who for skill and knowledge was the prince of all Physicians) hath written one whole booke in the praises onely of it. Now the best Ptsana or husked barley, is that which cometh from Vtica. As for that which wee haue from Egypt, it is made of the flat barley which groweth vpon the eare in two ranks or sides only. *Turanus* saith, That in the realms of Granade, Andalusia, and Africk, the barley whereof the said Ptsana is made, is smooth and naked in the eare without eiles or beard at all. He also is of opinion, that Rice and the graine Olyra, are all one. The manner of preparing husked barley and making Ptsana is so commonly knowne, that I need not to say a word thereof.

* Acerabulum.

* Ptsana.

As for Tragum, it is a kind of Pissane, made of Wheat, after the same order that the former of Barley. Howbeit, there is none of it to be found but in Egypt and Campaine. Touching Starch-floure called Amylum, it may be made of all kinds of wheat, and of the fine corne Siligo, i. Winter wheat: but the principall is that which they make of the three month or summer wheat. We are beholden to the Island Chios for the invention of Starch, and euen at this day, the very best is that which cometh from thence: called it is in Greek Amylum, because it neuer came into the mill; nor was ground vpon stones. The next to it in goodnesse, is made of a certaine Summer Wheat that is nothing ponderous and weightie. The way to make it, is to steep the wheat within certaine cooperie vessels, made of wood, in fresh water so much as will couer it wel. But it would not be forgotten, that the water must be changed fve times in a day: and if it were so serued also in the night, it would be the better, to that end, that beeing thus soaked and softened, it might be well mixed and incorporated, yea, and resolved (as it were) into a kind of paste, before that it become soure and bitter. This beeing done, it must be laid to drie either vpon linnen cloths, or else in twiggen paniers, that the liquor which is therein may draine away: afterwards vpon tiles, besmeared ouer with some leauen, it is poured forth to take the Sunne, to drie and harden against it. After the Chian Starch, that of Candie is most esteemed and liked of: and lastly, that which cometh out of Egypt. The good Starch ought to be light, smooth, and euen, and withall, fresh made: for those properties hath *Cato* set downe already.

To returne againe vnto our Barley: the meale thereof is of great vse here with vs in Physick. And that which more is, a straunge effect it worketh in Horses, Asses, and such like labouring beasts: for take Barley when it is dried and hardened at the fire, grind it to meale, reduce it into a paste, and make thereof gobbets: let these be put downe by a mans hand into their bellie, after the manner of cramming Pullen, and you shall soone see, that this food and manner of feeding, shall make the beasts more strong and lustie, and their flesh more fast and compact.

As for Barley eares, some there be which haue but two rankes or reues: others againe haue more, euen to the number of sixe. In the very graine also there is much difference: for there be many of them longer than other, lighter, shorter, rounder, whiter, blacker, and last of all, enclosing to a reddish or purple color. This is the worst of all others for to make drie Grout or Polenta: and as for the white, it is best for that purpose, but will not abide any tempestuous or hard weather. And to say a truth, of all corne, Barley is the softest and tenderest, and will least endure any hardnesse: It would not be sowed, but in a drie and fine ground, laid light, and brought into temper: howbeit, good it must be, and well in heart. The chaffe and pugs that come of Barley, is supposed to be as good as the best: but for straw it hath no fellow, especially to make litter of. Moreouer, in this regard, Barley of all other graine, is least subiect vnto blasting, for lightly it is cut downe before Wheat is mieldewed. And therefore it is, That the wiser sort of husbandmen in the country, sow no more Wheat than will serue for the prouision of their house only. Furthermore, they say, that Barley is sowed with the rake, namely, when the mould lightly couereth it: and therefore it cometh vp soonest, and bringeth most encrease and plentie. That which is gathered at Carthage in Spaine, within the moneth of Aprill, is sowed the very same moneth in Celtiberia, so as in one yeare it yeeldeth two crops. It is no sooner ripe, but they make greater hast to cut it downe, and to inne it, than any other corne: for the straw is very brittle, and the huske which contains the grain is as thin and small. To conclude, it is thought to yeeld the better groats if it be taken whiles it is somewhat green, rather than if it should haue the full ripenesse.

CHAP. VIII.

¶ That all kinds of Wheat or Fourmenty corne grow not indifferently in euery place. Also, of other sorts of corne in the Leuant or East countries.

You shall not find in all places the same kinds of Wheat: and where you meet with the very same, yet they bear not one name, but haue sundry appellations. The red bearded wheat named in Latin Far, and which in old time they called Adoreum; the winter wheat Siligo, and the

A the ordinarie white Fourmentie wheat Triticum, are the commonest of all others. And indeed these grow all in most countries. As for Arinca it loueth Gaule best, and that is the native and proper country for it. Howbeit there is plenty thereof in Italy also. As for Zea, Olyra, and Typhre, there be sundry sorts of wheat and Rie peculiar and appropriate to Egypt, Syria, Silicia, Asia, and Greece. The Egyptians make of their wheat a kind of floure or sifted meale, but nothing comparable to the Italian. They that vse Zea or Spelt haue not the fine red Wheat Far. And yet we are stored therewith in Italy, and most of all in Campain, where it is called by the generall name of Seed: which name no doubt was giuen vnto it for excellencie and singularity, as shall be shewed anon more at large. This is the very grain for which *Homer* the poet called the earth, *Zeas' sphaera*, i. yeelding the corn Zea: and not because the giueth life to all liuing creatures, as some would haue to be meant by that Epithere. Thereof is made also a kinde of starch, but grosser than the former, whereof we spake before: for no difference is there els. Of all kinds of wheat, Far (which is taken for the red bearded wheat) is most hardy, and best resisteth winter cold: it will wel abide the coldest soile that is, and that which is least labored and tilled: it may endure also hot and dry places: it yeilded the first food and meat to our antient forefathers in Latium; as may appeare by this good argument, that publique presents and rewards by way of remuneration were giuen of Far, which they called Adorea, as hath beene said before. Moreouer, that the Romans for a long time liued of a kinde of batter or gruell made of meale sod, and not of bread, is very euident by old records and Chronicles: for euen at this day such thick gruels or pottage be called Pulmentaria in Latine. And *Ennius* a most antient poet, when he would expresse the famine of a city that had endured long siege, reporteth, that the parents took by force from their children their sops, notwithstanding they cried piteously for very hunger. Moreouer, euen in our time wherein we liue, the sacred and ceremonious feasts by vs obserued in memorial of our birth daies and natiuitie, standeth much vpon surmenty, gruel, fritters, and pan-cakes. It seemeth also, that our gruels and such like pottage were as much vknown to Greeks, as their Polenta or dried groats were strange to vs here in Italy. There is no corn more hungry and greedy of nourishment than Seed [wheat,] or that draweth more vertue and fat out of the earth for nutriment. As touching the winter grain, called in Latine Siligo, I may be bold to say, it is the daintiest and most delicate wheat that is, for whitenesse, mildnesse, and lightnesse. It agreeth wel with moist countries, such as Italy is, and that part of Gaul called Comata, i. Lumbardy. Beyond the Alps also in Sauoy only, and the territorie of the Meninians, it will endure and hold the own very well. Mary in other parts of that country, within two yeares it turneth into the common wheat. The only remedy therefore is, to chuse forth the heauiest and weightiest cornes, and them to sow.

CHAP. IX.

¶ Of Pastry, of Grinding, and of Meale.

The best manchet bread for to serue the table, is made of the winter white Wheat Siligo, and the most excellent works of pastrie likewise are wrought thereof. And yet in Italie it passeth all the rest, in case that of Campain bee blended with another sort which doth grow about Pise: for the Wheat of Campaine is redder, but this of Pise whiter: and more weighty it is, if it come from a chalky ground, or haue chalk mingled among. Moreouer, this is the ordinarie proportion, that of the very pure corn of Campain wheat, which they call gualded, i. well husked and clesed, a measure named Modius should yeeld four Sextars or quarts of fine meale; but of the vulgar and common grain, which is not so gualded, 5 sextars, and half a Modius besides of bolted floure: and for a courser household bred, which they call the second bread, 4 sextars of meale, and as many of brans. Also of the Pissane wheat, one Modius should yeeld fve sextars of good meale, and the rest equal to the former. As for the Clusine and Aretine wheat, in euery Modius it answereth again six sextars of meale, that is to say, one more than the rest: otherwise they be all alike. Now if you list to range and boulte it for cork flower to make bread, ye shall haue of manchet 16 pound, of course household bread three, and halfe a Modius of brans. But this proportion doth not alwaies hold, for it alreth according to the good or bad grinding vpon the mill: for that which is ground dry rendereth againe more meale: but if it be wet or besprinkled with salt water, it maketh the fairer meale, and fuller of fine flower: and then

then shall ye haue more go away in brans. As for the word Farina in Latine, *i. meale*, it is deriued of Far, which in old time was the best & finest red wheat, as may appeare by the very name that it carieth. Finally, a Modius of meale comming of the French Siligo, called Blancheen, or Ble-blanch, maketh in bread 22 pound weight: but of our Italian, 3 or 4 pound more in bread pan-baked: for what corn soeuer it be, there must be allowance of two pound vantage ouer and aboue, for ouen-baked bread.

CHAP. X.

¶ Of the meale called Similago: of the white flower Siligo. Of other sorts of Meale: and of the maner of baking.

The best meale of that kind, which they call in Latine Similago, is made of the common wheat. If the corne come out of Africk, it yeeldeth ordinarily for euery Modius, half so much in ordinarie meale, and five sextars besides of flower called Pollen: [for that is the Latine tearme which they vse in the finest of the common wheat Triticum, proportionable to that which in the other winter wheat Siligo, they call Flos. And great vse herof there is in copper-smiths forges, and in work-houses where paper is made.]ouer and besides, of courser grodgeons for brown bread foure sextars, and as much of brans. Moreover, the ordinarie proportion goeth thus, that of one Modius of the fine meale Similago, there should be made 122 loues of bread: & that a Modius of the pure flower of Siligo should yeeld 117. As touching the price, thus it goeth commonly in the market one yere with another, when corn is at a reasonable and indifferent rate: A Modius of down-right meale is worth *40 Asses: but if the meale be sifted and ranged from the grosse brans vntill it be Similago, it will cost eight Asses more: and if it be boulded yet finer to the nature of the fine flower Siligo, the ouer-deale in the price will be double. Another distinction or difference there was known of this proportion, when a Modius comming of wheat of Similago, was seen to answer 17 pound in bread: and as much of Wheat flower called Pollen, thirtie pound and foure ounces: besides, for second household bread, two pound and a halfe; and of the coursest or browneest as many, and six Sextars ouer and aboue of brans.

But to return to our winter white wheat called Siligo, it neuer ripens kindly & all together, as other corn doth: and for that it is so tender and ticklish, as that no corn wil lesse abide delay and tarry on worke, great heed must be taken thereof; for so soone as any is ripe, presently the feed sheds and falls out of the eare. Howbeit, lesse danger is it subiect vnto whiles it standeth in the field, than other kindes of wheat, for it beareth alwaies an vpriight spike or eare: neither wil it hold and retain that mildew which blasteth corn so much, and turneth it into black powder. As for that kind of corn which they call Arinea, it maketh the sweetest bread: the grain it selfe is more fast & ful than the fine red wheat Far, it carieth a bigger eare, and is besides more ponderous and weighty. Seldom is it seen, that a Modius of this grain maketh full 16 pound. In Greece they haue much adu with it, to thresh it cleane and salter it from the huls and eiles. For which cause Homer saith, that they were wont to giue it as prouender to horses, and such labouring garrons; and the very same it is which he calleth Olyra. Howbeit this corn in Egypt goeth out easily vnder the flaile, is better to grind, and withal yeeldeth better, and is more fruitfull. The Red-wheat called Far is polled wheat [in Egypt] and carieth no beard or eiles about it. So is the whitewinter Wheat Siligo, saue onely that which is named Laconica. To these may be adioyned other kinds also, to wit, * Bromos, the poll wheat Siligo, (differing from all the other of that name) and Tragos: strangers all brought from the Levant or East parts, and resembling Rice euerie one: Type likewise is of the same kind, whereof in Italy and this part of the world is made that husked corne which goeth among vs for Rice, for it turneth into it. The Greeks haue a kind of wheat called Zea or Spelt: & it is commonly said, that both it and Typhae (considering that they vse to degenerate and proue bastard) will turne to their kinde again, and become wheat, if they be husked before a man sow them: howbeit this change will not be seen presently, nor before the third yere. As touching our common wheat, there is no grain more fruitfull than it: this gift hath Nature endued it withall, because she meant thereby to nourish mankind most; for one Modius thereof sowne, if the soile be good and agreeable thereto (such as lieth about Bizacium, the champion countrey of Africke) will yeeld an hundred

Some take it for a kinde of Barley, or rather Oats.

A hundred and fiftie fold againe. The procurator generall of that prouince vnder Augustus Caesar sent from thence vnto him one plant thereof (a wondrous thing and incredible to be reported) which had little vnder 400 straws springing from one grain & meeting all in one and the same root, as it appeareth vpon records by the letters sent, testifying no lesse. Likewise to the Emperour Nero he sent 340 strawes out of the same country, rising all from one onely corne. But to goe no farther than to Sicilie; within the territorie about Leontium, there haue beene certaine fields knowne, wherein one graine putteth forth no fewer than a hundred stalks with ears vpon them: and not there onely, but also in many other parts of that Island. And this is ordinarie throughout all the kingdome of Granade, and Andalusia in Spaine. But aboue all, the land of Egypt may make boast in rendring such interest to the husbandmen. Moreover, of all those kinds of wheat which are so plentiful, there is principal account made of that which branches, as also of another which men call Centigranum, *i. the wheat that beareth 100 graines.*

To leaue this kind of graine, and to come to Pulse: there hath been found in Italie, and goe no farther, one beane stalk laden with an hundred beanes. Touching Summer corne, to wit, Sefama, Millet, and Panicke we haue already spoken. As for Sefama, it commeth from the Indians, whereof they make a certaine kind of oile. The color of this graine is white. Like vnto it there is another grain called Erysinum, which is rise in Asia & Greece: and I would say it were the very same, that with vs in Latine is named Irio, but that it is more oileous and fatty; and indeed to be counted a medicinale or Physicall plant, rather than a kind of corne. Of the same nature, is that which the Greekes call Hormium: it resembleth Cummin, and is usually sowed with Sefama: howbeit no beast will eat thereof while it is Greene, no more than they do of Irio afore said.

To come now to the maner of husking and cleansing of corne: the feat is not so easily done in all, as in some; for in Tuscanie, they take the eares of their red wheat called Far, when they be parched and dried at the fire, they pound or bray them with a pestill headed at the nether end with yron, or els fistulous and hollow within, yet bound about with a hoop or ring of yron, and the same withinforth toothed in manner of a star, so as if they be not heedfull in the stamping, the yron-work at the pestill end will either cut the cornes in two, or else bruiſe and break them clean. In Italy (for the most part) they vse a reed or plain pestill, not headed with yron, to huske and dresse their corn; or els certain wheeles that are turned and driuen apace with water, which going very swift doe also grind the said corne. But since we are fallen into this treatise concerning husking and grinding of corn, it shall not be amisse for to set down the opinion and resolution of Mago in this behalfe: First, for common wheat he giueth order, that it be well steeped and soaked in good store of water; afterwards, to be rid from the huls and eiles that it hath, in a mortar: which done, it ought to be dried in the sunne, and followed a second time with a pestill. In like maner (saith he) should barley be vsed: howbeit, two Sextars or quarts of water will be sufficient to besprinkle and wet twentie Sextars of barley. As for Lentils, he would haue them first parched and dried, and then lightly punned or stamped together with brans; or els to put vnto twentie Sextars thereof, a fragmeint or peece of a broken semeld brick, and half a Modius or peck of sand. Eruele would be cleaned or husked as Lentils be: but Sefama, after it hath bin infused or soaked in hot water, he saith, ought to be laid abroad a sunning; then to be rubbed fiard together, and afterwards to be put into cold water and therewith couered, so as the huls or chaffes do float and swim aloft: which done, to be laid forth a second time in the sun vpon linnen clothes, for to drie. Now if all this be not don one thing after another and dispatched with the more speed and hast, it will soone vinev or catch a mouldiness, and besides lose the bright native hew, and looke wan and of a leaden colour. Now, say that corn be cleansed and husked, some one way and some another, it is ground afterwards in diuers sorts. If the eares be bolted by themselves alone for goldsmiths worke, the chaffe comming thereof is called in Latine, Acus; but if it be threshed and beaten vpon a paved floor, eare, straw, and al together (as in most parts of the world they vse to doe, for to fodder cattell and to giue in prouender to horses, then it is teamed Palra: but the refuse or chaffe remaining after that Panick or Sefama be clenſed, they call in Latine Appluda, how soeuer in other countries it be otherwise named.

To speake more particularly of Miller, there is great store thereof in Campaine, and there they set much by it, for of it they make a kind of white grawl or pottage: also the bread therof is passing sanorie and sweet. The Tartarians also & nations in Sarmatia, feed most of this water gruell

gruell made with Millet: as also with the crude and raw meale thereof vnfodden and vnbacked G
tempered with mares milk, or els with horse-bloud that runneth out of their master leg-vains,
by way of incision made for the purpose with the phleame. As for the Ethiopians, they know
no other corne but Millet and Barley. Panicke is eaten in some parts of Gaule, and principally
in Aquitaine or Guien: in Piemont also, and all about the Po, it is a great feeding, so there bee
beanes among; for without beanes they canot skill how to dresse any thing for their daily food.
The regions that confine vpon the Euxin sea or Pontus, haue no daintier meat than that which
is made of Panick. To conclude, all Summer corn abouenamed, delight more to grow in moist
and watery grounds, than to be wet with showres and raine from aboue. And yet I must needs
say, that Miller and Panick care least for water or moisture, when they begin to put forth their
blade. Last of all, there is no good husbandman but wil forbid to sow Millet and Panick either H
in vineyards, or among trees that beare fruit; being perswaded, that the sowing thereof doth eat
out the heart of the ground.

CHAP. XI.

¶ Of Leuains: the manner of making bread: sundrie kinds of bread: about what time
Bakers were first knowne at Rome: of Sieues and Serces, of Rangers and Bul-
ters. Last of all, of the Frumentie called Alica.

THE meale of Millet is singular good for Leuains, if it be wrought and incorporat in new
wine, for so it may be kept a whole year. The like is made of the better brans of wheat, so I
they be small, fat, and not to neer raunged; and the same be kneaded in new white wine of
three daies old, and then dried in the sunne. Hereof is made a dough or past, and the same is re-
duced into certain round cakes or Troches to serue for the making of bread, for these must be
soked and dissolued in hot water with the floure of the corn Zea, and therein be fodden, which
don, they vse to mingle it with the meale and floure to make past of, which they hold to be the
best way of making bread. The Greeks haue set down this proportion, allowing to euery pecke
or Modius of Meale, 8 ounces of leuaine; and this they thinke to be sufficient. Now these kinds
of leuains verily canot be made, but only in time of vintage. But if a man would make leuaines
at any other time, he may take of barley meal tempered with water so much as it may be brought
into a past; and when there be certain lumps or cakes herof made, weighing two pound apiece, K
they must be baked either vpon the hearth vnder hot embres, or els in an earthen pan ouer the
coles, vntill such time as they looke brown and red withal. Afterwards they be put vp close co-
uered in pots or such like vessels, & there remain vntill they wax sower. Now when a man would
vse leuain, herof he taketh what he will, and dissolueth it as is aforesaid. In old time when they
made barley bread, they vsed no other leuain for it but only the meale of Eruille or Cich pease;
and ordinarie it was, to take two pound thereof for * two peckes and an halfe of meale: but now
adaies the order of our huswiues is, to make leuaines of the very same meale which is kneaded
and wrought into dough, before salt be put therto, which they seeth to the consistence of a pulp
or thicke batter, and so let it lie vntill it become sower. And yet commonly they doe not boile
their leuains but only reserue some of the past or dough, wherof they make their bread the day L
before. As touching the nature of Leuain, certain it is that it proceeded of sourenesse, like as it
is generally held, that they be stronger of bodie who feed of leuained bread: for in old time it
was verily thought, that of the weightiest and heauiest kind of wheat, there was made the hole-
somest bread.

Concerning the sundrie sorts of bread that is made, it seemeth a needlesse peece of work to
set them down euery one in particular: for sometimes bread taketh the name of the meats and
viands that be eaten therewith: as for example, Oister-bread, so called for that it was good with
oisters: otherwhiles it beares the name of some daintie cates, as Artologanus, [i. pancake, fritter,
or fine cake bread.] As for the bread called Speusticus, [i. Hastie] it is so called, because it was
made in hast. The manner also of the baking giueth denomination to some bread, as to Furna-
ceus panis, which was made in a furnace; to Artoptitius, made in a baking-pan called Artopta: M
as also to that which was baked in an ouen. Not long since also there was a new deuice of ma-
king bread brought out of Parthia, which because the past is drawne through water (and yet a
spungious, light, and hollow substance it carries) they call water-bread, and giue it the denomi-
nation

A nation of Parthicke bread. But howsoeuer it be, the best bread is of the finest wheat floure, that
hath passed through a smal tamis bulter. Some countries there be, that knead their dough with
milke or eggs; others also put butter thereto: but those be such nations as are not troubled with
wars, since that they can haue while to set their minds on sundry sorts of pastry. The Picenes in
times past inuented away by themselves of making bread, with the very matter or substance of
the frumentie Alica; and surely that deuise holdeth still and is much vsed. The manner thereof
is this: They take the said frumentie past and steep it in water nine daies, on the tenth day they
work or knead it with the juice of Raisons, to the fashion of the Parthicke cake driuen thin and
broad, after this they put it into earthen pots, set them in ouens for to frie & bake, that the said
pots may there breake in sunder: and being thus hard baked, it is not to be eaten vnlesse it be
B foked in some lipuor, which ordinarily is milke, or mead especially.

There were no Bakers known at Rome for the space of 580 yeres after the foundation of the
citie, vntill the Persian warre. Before that time euery Roman citizen had his owne bread baked
at home, and womens work commonly it was, like as at this day it is in most countries: for this
appeareth by *Plautus*, who in his Comcedy entituled *Aulularia*, maketh mention of * Artopta,
a baking pan [which men haue vually in their houses:] and hereupon is growne much dispute
and controuersie betweene learned men about this Question. Whether that verse were of that
Poets making or no: for certain it is (according to the opinion of *A. Atticus Capito*) that at such
mens bounds as kept great houses and delicate fare, there was no other bread eaten but such as
C Cookes were wont to make them, after the maner of simnels: for Pistores were those only then
called, who husked and cleafed the bearded red wheat named in Latin Far; and others Bakers
than they, were there none. Neither had the Romane citizens in ordinarie, any Cookes as their
houshold seruants, but hired them out of the market whensoever they had any meat to dresse.

Diuers sorts of sieues and bulters there be. The Sarce made of horse haire, was a deuise of
the Frenchmen: the tamis raunger for course bread, as also the fine floure boulder for mancher,
(made both of linnen cloth) the Spaniards inuented. In Egypt they made them of Papyr reed
and rushes. But now that we are entred so far into this matter as touching corne, I thinke it not
amisse before I proceed any farther, to speake (with the first) of the frumentie called Alica, and
the manner thereof being (as it is) so excellent and wholesome to be eaten, and which, no doubt,
throughout all Italy, beares the name for the very best of all corne whatsoeuer. No question, but
there is made thereof in Egypt, howbeit nothing to the other. In Italy, many places there be
D where it is to be had, as namely in the territories of Verona and Pise: but that of Campain ca-
rieth the price and praise aboue all the rest: a champion or plaine country this is, for the space
of forty miles lying as a vale vnder the hills and mountaines, subject to watery clouds and tem-
pestuous winds. The soile of this whole tract (to speake directly of the nature thereof and deser-
no longer) is light and dustie, if a man respect the vpper coat thereof, but vnderneath it drinks
in much moisture, whereunto apt it is by reason of certain fistulous porosities therein, like a pu-
mish stone: in which regard, the mountaines commanding these plaines (ill neighbors other-
whiles) do it much good and mend the soile very well; for many a sound showre, which ordina-
rie falleth from the hills) passeth and runneth through it, as it were a colander; by means wher-
of, the ground standeth not drenched and foked with water, but is thereby more pliable & easie
E to be tilled. Now this soile hauing thus receiued store of water, doth not yeeld it vp again boi-
ling out at any springs, but keepeth and cherisheth it still within, as it were the radical and nu-
ritiue humor, concocting the same to a very good temperature. All the yere long a man shall
see it sown and standing with corn, one or other; for the same ground beares one crop of Panick;
and two of the red wheat Far: it neuer resteth but beareth somewhat for say that some lands lye
fallow between-while, and are not sowed with corn; they yeeld roses in the spring of themselves
naturally, and those far sweeter than the garden roses: so fruitful is it and canot abide to be idle
and do nothing. Herupon arose the prouerb of this land of Campaine, *That greater store is there
to be found of sweet perfumes and odoriferous ointments, than of simple oyle in other countries whatsoeuer.*

And looke how much this tract of Campaine surpasseth all other lands in goodnesse and fer-
tility, so much excelleteth one quarter thereof (called in Latin Laboria, and by the Greeks Phle-
graum) all the rest, and goeth beyond it selfe. This plain aforesaid named Laboria, is confined
on both sides with the great caules or high waies raised by the Consuls, and thereupon called
Consulares; the one goeth from Puteoli, the other from Cumes, and lead both to Capua.

BUT to come againe vnto our Frumentie Alica, made it is of the graine Zea, which before we G
tearmed by the generall name of Seed. This corne for to make Frumenty, is to be pound in a
wodden mortar, when it should be cleafed from the huske : for if a man beat in one of stone,
the hardnesse thereof would bruiſe and breake it. The best way of cleafing and husking it, is
with a pestill, such as bondslaves and prisoners doe vse to stamp withall, and to work by task for
their punishment: in the forepart therof it hath a circle of yron, made in fashion of a round Box:
wherewith after the corne is drawn naked o^t of the husk, the very same instrument serueth a-
gain to stamp and bruiſe the white marrow ^{and} floure thereof within. And thus by this means
there be three sorts of Alica or Pourmentie aforesaid. The finest, which is the best : the meane,
which is the second: and the greatest or grossest, which the Greekes call Aphærema.

When all this is done, yet haue they not that whitenesse of their owne, for which cause they H
are so much esteemd; as namely, those that are come nowadays from Alexandria, which are ta-
ken to be the best and to excell all other. And therefore there is chalk (a wonderfull thing to be
spoken) mingled afterwards and incorporate therewith, and so by that means the Frumenty be-
comes white and tender withall. Now this chalke or plaſtre is found between Puteoli and Na-
ples, in a little hill which thereupon is called Leuco-gæon, [i. white earth.] And in truch when
Augustus Cæsar, late Emperor of Rome, erected a colonie at Capua, and peopled it with Roman
citizens, he assigned vnto the Neapolitanes (by vertue of a decree, now extant) an yerely rent or
penſion of twentie thousand deniers to be paid out of his owne treasure, in regard of the chalk
which came from the hill aforesaid, being within their territorie and siegnorie. He rendereth
also a reason inducing him thus to do, Because the inhabitants of Capua, alleadged, that they I
could not make good Alica or Frumenty without that mineral of chalke. In the same hill there
is also found a Brimstone mine, and out of the veines thereof, fountaines springing, called O-
raxi, the water whereof is singular good to cleer the eies, to cure and heale green wounds, and to
fasten the teeth that are loose in ones head.

As touching a bastard kind of Frumenty, it is made verily for the most part of a Speltor Zea
in Affrick, which there doth degenerat and grow out of kind. The ears that it carieth, are broa-
der and blacker than the other, and the straw is but short. They vse to cleafse and huske it by
stamping or braying it together with sand, and for all that deuise, much ado they haue to fetch
off the huls and huskes wherein the graine lieth enclosed: now when it is thus cleafsed and na-
ked, it is not past halfe as much in measure as it was before. Which done, there is a fourth part K
of plaſtre strewed & mingled among: and whenal is together, they sift it down through a meal
ſieue. That which remaineth behind and passeth not through, is the grossest part thereof, and is
called in Latine Exceptitia. That which was thus ſearced, is driuen againe through a narrower
and finer ſieue, and those groats that tarie in the ranger, the call Secundaria. In like manner doe
they a third time, ſearcing it through so fine a ſieue, that nothing can passe but the very small
sand and poudre: and this last kind of Frumenty gurts they name Cibraria. Another way there
is besides in all places practised, to sophisticat, and counterſeit the right Frumenty groats in-
deed: They chuse out of our common Wheat, the fairest, fullest, and whitest grains, which bee-
ing half foddren in an earthen pot, they lay out afterwards in the Sun, till they be as drie as they
were at first: which don, they lightly sprinkle some water ouer, & then bruiſe them in a quearn L
mill. Fairer Frumentie groats be made of Zea than of Wheat, and called it is Granum or Gra-
natum, although in Alica that be counted a fault. To conclude, they that wil not vse chalk, do
blanch and make their Frumentie white by seething milke with it, and mingling all together.

CHAP. XII.

¶ Of Pulse.

IT followeth now to write of the nature of Pulse, among which, Beanes do challenge the first
ranke and principall place: for thereof men haue assaied to make bread. The meale of Beans
is called in Latine Lomentum. There is not a Pulse weigheth more than it, and Beane meale M
makes euery thing heauier wherein it is. Now adaies they vse to sel it for prouender to feed hor-
ſes. And indeed Beanes are dressed and vſed many waies, not only to serue all kind of four-
footed beasts, but also for man especially. For in most countries it is mingled with Frumentie
corne: and namely with Pannicke most of all, whole and entire as it is: but the more delicate and
daintie

A daintie way is to break and bruiſe it first. Moreo uer, by ancient rites and religious ceremonies;
at the solemn sacrifice called Fabraria, the maner was to offer vnto certain gods and goddesſes
Beane cakes. This was taken for a strong food, being eaten with a thick greswell or portage, how-
beit, men thought that it dulled a mans senses and vnderstanding, yea, and caused troublesome
dreames in the night. In regard of which inconueniences, *Pythagoras* expressely forbid to eat
Beanes: but as some haue thought and taught, it was because folke imagined, that the foules of
such as were departed, had residence therein: which is the reason also, that they be ordinarily
vſed and eaten at the funerals and obsequies of the dead. *Varro* also affirmeth, That the great
Priest or Sacrificer called the Flamine, abstains from Beanes both in those respects aforesaid;
as also for that there are to be seen in the floure thereof certain letters or characters that shew
B heauines and signs of death. Further, there was obserued in old time a religious ceremonie in
Beanes: for when they had sown their grounds, their maner was, of all other corne to bring back
with them out of the fieldes some Beanes: for good luck sake, preſaging thereby, that their
cornewould returne home again vnto them; and these Beanes thereupon were called in Latine
Refrum, or Reſerium. Likewise in all port-sales it was thought, that if Beanes were enter-
mingled with the goods offered to be sold, they would be luckie and gainfull to the seller. This is
cerataine, that of all the fruits of the earth, this only will be full and found when the Moone is
croissant, notwithstanding it were gnawne and halfe eaten with some thing before. Set them o-
uer the fire in a pan with sea water or any other that is saltish, they will neuer be thoroughly
foddren. They are set or sowne before the retrait of the Starre Vergilia, [i. the Brood-hen] the
first of al other Pulse, because they might take root betimes and preuent the Winter. And yet
C * *Virgill* would haue them to be put into the ground in the Spring: like as the manner is in Pic-
mont and Lombardie, all about the riuier Po.

But the greater part of good Husbandmen are of this opinion, That the ſtalke or straw of
Beanes sowne early or set betimes, are better than the very fruit it selfe, which hath had but
three months being in the ground. For the cods and stalks only of Beans are passing good fod-
der and forage for cattell. Beanes when they are blooming, and in their floure desire most of al
to be refreshed with good store of rain: but after they haue don flourishing, they care for little: the
fowing of this Pulse in any ground, is as good as a mucking vnto it, for it enriches it mightily.
And therefore towards Macedonie and about Theſſalie, the manner is when Beanes begin to
D blossom, for to turne them into the ground with the plough. Beans come vp and grow in most
places, of their owne accord without fowing; and namely, in certaine Iſlands lying within the
Northern ocean, which our countrymen thereupon haue named Fabaria. Semblably, they grow
wild commonly thoroughout Mauritania, but exceeding hard and tough they be, and such as
possibly cannot be foddren tender. There are likewise in Ægypt to be found Beanes, with a stalk
beset full of prickles or thornes: which is the cause that Crocodiles wil not come neer them, for
feare of hurting their eyes. The ſtemme of these Beanes is foure cubites in height, but excee-
ding thicke and big withall: tender it is notwithstanding, and soft, running vp euen and smooth
without any knots or joints at al, it carries a head in the top like Chesboule or Poppy, of a rose
red color: wherein are contained not about 30 Beanes at the most. The leaues be large: the fruit
E it selfe (or the Bean) is bitter in tast, and the ſemel not pleasant: howbeit the root is a most daintie
meat, which the inhabitants do eat as wel raw as foddren; and like it is to reed & cane roots.
These grow in Syria and Cylicia, as also about the lake Torone, within Chalcis.

As touching other Pulse, Lentils be sown in Nouember, and so are Pease, but in Grece on-
ly. Lentils loue a light ground better than a fat & heauie: they like also drie and faire weather.
Two kinds thereof be found in Ægypt: the one more round and blacke than the other, the rest
be fashioned as common Lentils. According to the manifold vse and diuers effects of Lentils,
there haue sundrie names and denominations beene borrowed from them: for I find in writers,
that the eating of Lentils maketh men to be mild and patient, whereupon they be called Len-
ti and Lenes. As for Pease, it ought to be sown in warm places lying well vpon the Sunne: for
F of all things it cannot abide the cold. Which is the cause, that in Italie and in other countries
where the climate is rough and hard, they are not sowne vsually but in the Spring, and folke chuse
a gentle, light, and loose ground.

To come now to the Cich pease, the nature of it is to be nitrous and saltish, and therefore it
burneth the ground where it grows. Neither must it be sowne, vnlesse it were well ſteeped and
foked

*Vere fabis sa-
tis, Georg.
lib. 1.

Much like to
the prouerbe
here in Eng-
land, March
Ore straw is
better than
April Otes.

foked in water the day before: many sorts there be of these cich-pease, different in bignes, form, colour, and tast: for there are both blacke and white, and those in fashion shaped like to a Rams head, and therupon they are so called. There is a second kind named Columbinum, or by others Venerium. These are white, round, light, lesse than the former Rams-head ciches, which men do eat ceremoniously with great religion, when they meane to watch thoroughly all night long. There is a little cich pease also, called Cicercula, made cornered and otherwile vneuen, like vnto a Pease. But the best ciches and most pleasant are those that come nearest in resemblance to the Eruille: and generally the red kind and the black are more firm and fast than the white: cich pease grow within round cods, whereas other Pulse he contained in long and flat, according to the forme and figure of the seed which they hold: Pease by themselves haue a long round cod in forme of a Cylinder.

The Pulse called Phaseoli, [i. Kidney Beans] vse to be eaten cod and al together. These may be set or sowne in what ground you list, from the Ides of October to the Calends of Nouember. Finally, all kinds of Pulse, so soone as they begin to ripen, are to be gathered or plucked hastily: for stay neuer so little, they leape out of their cods, and shred, and being once fallen, they lie hidden in the ground, like as the Lupine also.

CHAP. XIII.

¶ Of Rapes or Neneues of *Amiternium* Turneps.

Now let vs proceed and passe to other matters: and yet in this discourse, it were meet to write somewhat as touching Rapes or Nauews. The Latin writers, our countrey men, haue slightly passed by and touched them only by the way. The Greeks haue treated of them somewhat more diligently, and yet among pot-herbes and worts growing in gardens; whereas indeed according to good order they would be spoken of immediatly after Corne, or Beanes at least wise, considering there is not a plant of more or better vse than is the Rape or Nauew. First and formost, they grow not only for beasts of the earth and the Fowles of the aire, but also for men. For all kinds of Pullen about a Farme-house in the countrey, doe feed vpon the seed thereof as much as of any thing else, especially if they be boiled first in water. As for four-footed beasts, they eat the leaues thereof with great delight, and wax fat therewith. Last of al, men also take as great pleasure and delight in eating the leaues and heads of Rapes or Nauewes in their season, as they do of young Coly-flories, Cabbages, or any tender crops of hearbs whatsoeuer; yea, when they are faded, flaggie, and dead in the Barn, they are esteemed better, than being fresh and green. As for Rapes or Nauewes, they will keep long and last al Winter, both within the ground where they grew: and being well wintered, they will continue afterwards out of the earth lying abroad euen almost till new come: so as they yeeld men great comfort to withstand hunger and famin. In Piemont, Lombardie, & those countries beyond the Po, the people make the most account of gaine by gathering Rapes, next to wine vintage and corne haruest. It is not choise and daintie, of the ground where it will grow: for lightly it wil prosper where nothing els can be sowed. In foggy mists, hard frosts, and other cold weather, it thrives passing wel, and grows to a wonderfull bignes. I haue seene one of their roots weigh aboue fortie pounds. As touching the handling and dressing of them for our table, there be many waies and deuises to commend and set them out. Preferred they may be till new come, specially conditewith sharp and biting Senuie or Mustard seed. Moreouer, our Cooks know how to giue them six other colours besides their owne which is pure and naturall; they haue the cast to set euen a purple hew vpon them. And to say a truth, there is no kind of viands besides that, being thus painted & colored, hath the like grace. The Greeke writers haue diuided them by the sexe, and therby made two principal kinds therof, to wit, the male and the female. Nay, more than that, out of one and the same seed, according as it is sowed, they can make male or female, whether they please. For if they sow thicke, and chuse therto a hard and churlish ground, it will proue of the male kind. Also, the smaller that the seed is, the better it is esteemed, But of al Rapes male or female, three especiall sorts there be & no more. For some roots spread flat and broad, others are knit round like a ball; the third sort that runs downe into the ground with a long root in manner of a Radish, they cal the wild Rape or Nauew: this bears a rough lease and ful of angles or corners; the juice that it yeelds is sharp, hote, and biting, which being gathered in haruest time & reserued, mundi-

A mundifieth the eies, and cleareth the sight, especially being tempered with brest-milke: If the weather be cold, they are thought not only to thrive in bignesse of the root, but also to proue the sweeter, whereas contrariwise in a warm season they run vp all to stalke and lease. The best simply are those that grow in the Nursine territory. For they are sold by the weight: and euery pound is worth a Roman Sesterce, yea, and otherwhiles twaine, if there be any scarcity of them. Next to these in goodnes be those that come out of Algidum. Thus much of Rapes & Nauews.

As for the Turneps of *Amiternum*, they be in a manner of the same nature that the Rapes afore said, & cold they loue as well. Sown they are before the Calends of March; & foure quarts of their seed will take vp a whole acre of ground. The best Husbandmen, and such as are more exquisite in their practise of Agriculture, giue order, That the ground for Turneps should haue B fine tilthes, whereas Rapes or Nauewes are content with foure: but both the one and the other had need of a soile well enriched with dung or compost. By their sayings also, Rapes will prosper the better and come vp thicker, if they be sowed in their huls, chaffe and all together. Moreouer, they would haue the seeds-man to be naked when he sows them, and in sowing to protest, that this which he doth is for himselfe and his neighbors, and withall to pray as he goeth. The proper season for the seednesse of them both, is between the feasts of the two gods; to wit, *Neptune* and *Vulcan*.

To conclude, there is a subtil and curious obseruation that many go by and do hold, namely this, To marke how many daies old the Moon was, when the first snow fel the winter next before; for if a man do sow Rapes or Turneps, within the foresaid compass of that time, the moon being so many daies old, they will come to be wondrous great, and increafe exceedingly. Men vse to sow them also in the Spring; but then they make choise of moist and hot grounds.

CHAP. XIII.

¶ Of Lupines.

After Rapes and Turneps, the Lupines haue greatest vse, and serue to be raunged next: for that they indifferently serue both men and also all foure footed beasts that be housed, either whole or clouen. Now for that the stalke is very shittle in mowing, and therefore flyeth from the edge of the syth, the onely remedie therefore (that the mower may catch it) is to D goe to worke presently after a good shower. And verily there is not a plant growing vpon the earth (I meane of such as are sowne of seed) more admirable than the Lupine, in regard of the great amity and sympathie betweene the earth and it. Looke how the Sun keepeth his course in our Horizon aboue, so doth it turne and go withall, in so much as the Husbandmen of the countrey go by no other clocke to know how the day passeth, in close and cloudie weather, than this obseruation. Moreouer, it hath three seasons of blowing: it loueth the earth well, but yet willingly it would not be couered ouer with mould: for this is the onely seed that is sowne vpon ground without any ploughing or digging: it would grow to chuse, in a most grauelly, drie, and sandy soile; and in no case can it abide any tending or husbandry about it: so affected is it to the earth, that cast it vpon any rough ground, among bushes, leaues, briars and brambles, it will chit and spurt neuerthelesse, & neuer lin til it take root within the earth. If Lupines be sowed either in vineyards or vpon corne lands, they enrich the same and make the ground better, as we haue before written: and so little need haue they of dung, that they stand in stead of the very best. To say a truth, there is no graine lesse chargeable to be sowne, than it; nay there is none costeth nought at all, but it; for it needeth not so much as to be brought into the field: and why? it soweth it selfe presently in the same field where it grew: and shedding as it doth of the own accord, a man neuer needs to cast and throw it vpon the land, as other corne. It is first sowne, and last gathered: and lightly both these seasons fall out in the moneth of September, for if the Seednesse preuent not the winter, so as it may haue good root before it commeth, it will be in danger of the cold. Ouer and besides, if it chance to lie bare and vncouered aboue ground, left carelessly without any keeping, and that no raine come vpon it presently for to driue it into the ground, it is safe enough and catcheth no harme; for so bitter it is, that no liuing creature will touch it: and yet for the most part the husbandmen bestow a light furrow vpon it, and so couer it verie shallow. If the ground be fast and heauie, it loueth that best which standeth vpon a red clay. And for the maintaining and enriching of this kind of soile, it must be turned vp or eared after

after the third flouring, but in case it be grauelly or sandy, it will serue to do it after the second. Chalkie grounds onely and myrie it hateth, and therein it wil not grow. As bitter as otherwise it is, yet if it be steeped and soked in hot water, it is mans meat also. Moreouer, one Modius, or pecke of Lupines is sufficient for to satisfie and feed an Oxe or a cow at a time: and this kind of prouender will make beasts strong and healthfull. Moreouer, the meale of Lupines applied to the bellies of yong children that haue the wormes, is a singular remedy. For the good keeping of Lupines, all men agree that they should be laid vp in some chimney or smokie place especially, for if they lie in a moist roome, there be certain little worms that wil nibble off and eat the tip or nauill that it hath, and by that meanes marre it for euer sprouting againe. Finally, if Lupines be eaten downe by beasts, while they be greene in the lease, the ground where they grew must presently be ploughed vp.

CHAP. XV.

¶ Of Vetches and Eruille.

Vetches also do manure and fat the ground where they be sowed; neither be they chargeable or stand the husbandman in much: they be sown with one tilth; otherwise there needs no harrowing nor weeding; there is required no mucking; onely they would be covered with mould and the clods broken; for sowing of vetches, there be three sundry times; first, about the setting of the star Arcturus, that by the moneth of December it may get a good head for to be eaten with beasts; and it is generally holden, that being sowne in this season, it will bring the best seed; for say it be eaten downe then, it will carry the burden neuertheless: the second Seede is in Ianuarie: the last in March; and being then put into the ground, it will run vp most to blade, and yeeld the best forrage for cattell. Of all seeds that are cast into the earth, it loueth drought most: it can brooke also shadie places well enough. The chaffe that commeth of the seed thereof, is excellent good; and better than any other, in case it were ripe when it was gathered. It robbeth vines of their nourishment, if it be sowed nere those trees wherto vines are wedded; in somuch as a man may see evidently how they languish.

As touching Eruille, it asketh no great hand or trauell about it: yet thus much more attendance it requireth than Vetches, for that it must be weeded and grubbed about the roots. Besides, this kind of Pulse is of great vse in Physick; for *Augustus Caesar* was cured of a disease that he had, and recovered his health by the means of Eruille, as himselfe reporteth in some of his letters now extant. Moreouer, fise Modij or pecks of Eruille sown, is sufficient to maintain and find a yoke of oxen. As for that which is sowne in March, it is hurtfull forage (men say) for kine and oxen: as also that which is sowne in Autumne, maketh beasts heauie and stuffed in the head: but that which is put into the ground in the beginning of the Spring is harmlesse.

CHAP. XVI.

¶ Of *Fenigreeke*: of *Rie*: of *Dredge*: of the prouender corne or *Bolimong* *Ocymum*: of *Spanish* *Trifoile* or *horned Clauer-grasse*, called in *Latine* *Medica*: of the shrub *Trifoile*, named *Cytisus*.

For the sowing of *Silicia* or *Siliqua*, otherwise called *Fenigreeke*, there needs no more but to scarrifie or scrape it lightly vp with a furrow not above foure fingers breadth deepe; for the lesse cost and husbandry that is bestowed about it, and the worse that it is vsed, the better it prospereth and yeeldeth greater increase: a strange thing to be spoken and seldom verifed, that *Negligence* should be any waies profitable; and yet herein it proueth true. That which is called *Secale* and *Farrago* in *Latine*, (*i. Rie*) needeth no more adoe but to be harrowed & the clods well broken. There is a kinde of *Secale* or *Rie*, which the people called *Taurines* dwelling vnder the *Alpes* doe call *Asia*: it is simply worst of all other, and good for nothing but onely to driue away hunger: plentifull enough this corne is and yeeldeth good increase, but the straw is slender: blacke it is and of an vnpleasant colour, howbeit exceeding weightie and ponderous: they vse to mingle the red wheat far therewith, and make thereof a *Mascelline*, to allay the bitterness thereof, and yet for all that, the bread which it maketh is most vnfaourie to the mouth and ill for the stomack. It wil come vp in any ground whatsoeuer, and bring forth a hundred fold

ordina-

ordinarily; neither doth it eat the ground out of heart, but rather maketh it more battle, and serueth in stead of compost or mucke.

As for that kind of dredge or farrage which commeth of the refuse and light corne purged from the red wheat far, it ought to be sowne very thicke, with Vetches otherwhiles mingled among. In *Africke*, the same mixture is made of Barley. All these are good onely for prouender and beasts forage: as also a bastard kind of Vetches called * *Cracca*, which pigeons loue so well, that if they be fed once therewith, they will neuer leaue the place where they tasted it, nor flie far from thence. In time past our ancestors had a kind of fodder or prouender, which *Cato* called *Ocymum*, wherewith they vsed to stay the gurrie in kine and oxen. This forrage was made of * beane stalks cut downe greene as it stood before it was iointed and coddled. But *Sara Manlius* taketh this dredge to be another thing, saying, that in old time they vsed to put vnto ten Modij of beanes, two of Vetches, and as many of Eruille, and sower wont to blend al together and sow them in an acre of ground at the fall of the lease, and (saith he) it would be the better balimong if there were some Greek Otes mingled withall, such as neuer shed the seed out of the haw: this manner of dredge was called vsually *Ocymum*, and was wont to be sowne for a kind of forrage to serue kine and Oxen. *Varro* saith, that it tooke that name because it commeth vp so speedily as being deriued from the Greekeword *οκυμ*, which signifieth, Quicke, or Swift.

As for the grasse or herbe *Medica* (a kind of Clauer or Trefoile) the Greekes held it in old time for a meere stranger, as being brought into Greece from Media during the Persian warres, which king *Darius* leui'd against Greece: howbeit, an excellent Simple it is, and worthie to be written of in the first place. And to begin withall, this singular property it hath, That with once sowing, it continueth about thirty yeares without any need of renewing. Like it is to Clauer or three leaved grasse, both in lease and stalke, but that the stemme is parted by knots and joints. Moreouer, as it riseth higher and runneth vp in the stalke, the leaues grow narrower: of this herb alone and of *Cytisus*, *Amphilochus* compiled one whole book; howbeit, he wrote of them both confusedly. The ground wherein it is to be sowed, after it is well rid of stones and clenfed, must be broken vp and well tilled in the fall of the lease. Soone after it needeth to haue another fallow and be harrowed withall, and then covered with hardles: this would be done two or three times (fise daies between) and therewith it ought to be thoroughly dunged. This herb requireth a sound dry ground, and yet such as is full of succulent moisture within, or else where water is neere at hand to command. The ground being thus prepared, ought to be sowed in the moneth of May following, for otherwise the frost would take it and marre all. Moreouer, requisite it is, that it be sowed very thick, so as euery place be taken vp therewith, thereby to exclude all other weeds and giue them no roome there to grow. To this effect therefore euery acre will take 20 Modij or pecks of seed. But take heed withall, that it be not burnt so soon as it is put into the ground, & therefore immediatly it must be covered with mould. If the soile be moist and giuen to bear other grasse, the seed is soon ouergrown and choked, and then al wil run to grasse, & turn to be a meadow: which grasse or coich when you see begin to ouerrun the ground, it must be all weeded out presently an inch deepe within the ground, and by hand rather than any weeding-hooke or thistle spade. Now, when this hearbe *Medica* or Clauer grasse begins once to floure cut it down: and so oft as it floureth againe, downe with it. Thus you may haue six mathes in one yere or four at the least. You must neuer let it spindle and beare seed: for better is it to take it thus in the growth, while it is but young and greene grasse, for three yeares together: and the forrage or fodder is most profitable. Sowne (I say) it must be in the Spring, and weeded for the first three yeares. The green sould afterwards ought to be pared away with hooke and spades close to the ground: for by this meanes you shall be sure, that all other weeds will die, and this hearbe take no harme by it, for that by this time it is deeply rooted. If the weeds do get head and ouercome it, the onely remedie is by the plough, to turne vp the ground ouer and ouer so many times, vntill all other roots be killed. Moreouer, heed must be taken, that of this herbage or fodder, beasts do not eat their fill, for feare you be driuen of necessity to let them bloud, and take downe their rankeness. The greener that it is, the more profit commeth thereof, for it drieth branch after branch, vntill at length it will crumble like dust or powder, and then is it good for nothing.

As touching *Cytisus*, [*i. the Shrub* *Trifolie*] which is a singular kind of pasturage, & passes al the rest, I haue written at ful in my discourse of shrubs. For now at this present I am to profess

* Or rather *Arachos** *Sisibane* *Varro* saith *Citobant*, which is clean contrarie. * *Fabals* segete antiquam genant.

cure and goe through the treatise of other sorts of corne and their nature, if I had once written somewhat in one part thereof as touching the accidents and imperfections that happen among them.

CHAP. XVII.

¶ *The faults incident to corne, and their remedies. Also what corne is respectiue to this or that soile, for to be sown therein.*

THe first and principall defect obserued in bread-corne, and Wheat especially, is when it doth degenerate and turne into Otes: and not only it, but Barley also doth the like. Semblably, Otes otherwhiles serue the turne in stead of bread corne: as wee may see in some countries of Almaine, where they do vsually sow it, and commonly they haue no other pottage there, than Oatmeale gruell [which they call Abremouz.] The foresaid defect and imperfection is occasioned chiefly by the moist soile or ouerwet weather. Another cause there followeth also thereupon, proceeding from the feeblenesse and weaknesse of the seed; namely, when it lieth long fobbing in the ground, before it come vp: and hereto may be referred the faultines of the seed otherwise, namely, if it were worm-eaten or otherwise rotten at the time of sowing: and verily, no sooner appeareth it aboue ground, but the foresaid change or bastardie may be seene, whereby it doth appeare, that the cause is in the root.

A second defect or imperfection there is also incident to corn, which hath some neer resemblance to the Otes aforesaid; namely, when the graine being formed and newly come to the iust proportion of bignesse (howbeit, not yet full and ripe) before that it is firm and hard, is smitten with a noisome blast, and so, like an abortiue fruit, decaieth and windereth away within the eare in such sort, as there is no substance left therein, but appeareth void and empty. Now these aduerse and malignant winds hurt all spiked corne, as well Wheat as Barley, at three seuerall times, to wit, in their floure; presently vpon their blooming, and last of all, when they begin to ripen; for then, namely when they are vpon the point of maturitie, those blasts consume the grain, and bring it to nothing, which before was full: whereas at the two former seasons they hinder it altogether from knitting and growing. The hot gleames moreover of the Sun, betwene often clouding, do much harme to corne.

Furthermore, there be certaine little wormes breeding in the root, that do eat it: which happeneth by occasion of much raine falling immediately after the seednesse, especially, when some sudden heat and drowth ensueth thereupon; which bindeth the earth aboue and so encloseth the moisture conceiued within, the very cause & nourice of putrifaction. Ye shall haue other such like vermin engender likewise in the very grain of the corn, namely, when the ear doth glow within, and is chafed with sultry hot rains.ouer and besides, there be certain [green] flies like small Beetles, called Cantharides, which dogrow and eat the corne. But al these, and such like worms or flies die presently, when the corn (which was their food) is gone. Moreover, Oile, Pitch, and Tarre, all manner of greace also, be contrarie to seed-corne especially; and therefore take heed that you sow none such as hath caught oile, pitch, or greace. As for showers of raine, good they are for corne, so long only as it is in the green blade: when corne is blooming, be it either wheat or barley, or such like) raine is hurtfull. Mary Pulse takes no harme thereby, vnlesse it be the Cich-peafe.

All kinds of wheat and other bread corne, when they be toward ripenesse, catch hurt by showers; but Barley more than any. Besides all this, there is a certaine white hearbe or weed resembling Panicke, growing among corne, and ouerspreading whole fields; which not onely hindereth corne, but also killeth all the cattell that feedeth thereupon. For as touching ray or daniel, burs, thistles, and brambles, I may hold and reckon them, not so much for faults and imperfections of corn, as rather the plagues and infections proceeding from the very earth. And for blasting, which commeth of some distemperature of the aire (a mischiefe common as well to corn, as vines) it is as hurtful as any other malady whatsoever. This vnhappie blast falleth most often in places subject to mists and dewes, and namely, hollow vallies and low grounds lying vnder the winde: for contrariwise, windie quarters, and such as are mounted high, are not subiect to this inconuenience. Also we may number among the faults incident to corne, their rankenesse; namely, when the blade is so ouergrowne, and the stalke so charged and loden with a heauie head that the corn standeth not vpright, but is lodged & lieth along. Moreover, when there falls a great

A a great glut of rain, in so much as the ground stands with water, there befalleth vnto all corn and pulse, yea, and whatsoever is sowne; a certaine disease called in Latine Vrica; in so much, as the very Cich-peafe taketh hurt thereby; for by reason that the rain washed from them that salt quality which was naturall thereunto, it becometh sweeter than it should be, and loseth the kind tast. There is a weed that claspeth and tieth about Ciches and Erules, whereby it choketh and killeth them both: and thereupon it is called Orobanthum, i. Choke Erule. After the same manner dealeth * Ray or Darnel by wheat; wild Otes likewise, named by some Ægilops, with barley; as also the weed Securidaca, i. Ax-fitch, which the Greeks also (for the resemblance that it hath to an axe head) call Pelicinon, * with Lentils. These weeds (I say) kill corne by winding about it. Another herb there is, growing neere to the city Philippi, which killeth Beans: if the ground be fat and good, they name the said weed Ateramnon; but if it be found in a hungry and leane soile, and namely, when being wet, some vnhappy wind bloweth vpon it, they call it Teramnon.

B As for the graine of Raie or Darnel, it is very small, and lieth inclosed with a sharpe-pointed husk. The bread which hath any of this seed in it, soone causeth dizinesse and swimming of the head. And (by report) in Asia and Greece the masters of the common Bains and Stuphes, when they would keep away the great resort of multitude thither, haue a deuise to cast Darnel seeds vpon burning coles, for this perfume will quickly set them farther off. Moreover, if the Winter proue to be wet and waterish, ye shall haue in the Pulse called Erule, a little vermin ingendred there called Phalangion, and it is of the kind of these spiders. Likewise vpon Vetches there will breed naked dew-snails, yea, & otherwhile those little ones with shels or houses on their backs, which creeping from the ground, wil gnaw & eat them, that it is a wonder to see what foul work they will make. Thus much concerning all the maladies and inconueniences (to speak of) incident to corne. It remaineth now to treat of the remedies.

C As touching the cure of those harms that come by hurtful weeds to the corn in blade, it consisteth principally in two things: namely, either in the vse of the weeding knife or hooke, when they be newly come vp, or els in strewing ashes when the corn is a sowing. But as for those dangers that touch the seed or grain in the eare and eod, as also that settle about the root, they must be preuented by good forecast, euen before it be thrown into the ground. It is generally thought that if seed-corn lie steeped beforehand in Wine, it will be better able afterwards to resist all diseases whatsoever. *Virgil* giueth order to infuse or soke the Beanes that must be sown, in nitre and oile lees or dregs; and he assurth vs, that they will prosper mightily besides, and become exceeding great. But others are of opinion, that if for 3 daies before they be cast into the earth they lie in vine & shere water mingled together, they wil, being thus prepared come on apace, and thrue passing well. It is said moreover, That if Beanes be thrice raked and rid from weedes, one Modius of them being whole and solid, wil yeeld a Modius again after it is husked & broken. As for other seed-corn, it wil escape the danger of the worme, if either it lie before among Cypresse leaues bruised; or be sowed in and about the change of the Moon, namely, when she is not to be seen aboue the earth in our hemisphare. Many there be who practise other remedies: & namely for the Millet, they would haue a toad to be caried round about the field before that it be harrowed: which done, to be put close within an earthen pot, and so buried in the midst of the said field: and by this meanes forsooth, neither Sparrows will lie vpon the corn, nor any worm hurt it. Mary, in any case this same toad must be digged out of the ground againe before the field be mowed, els will the Millet proue bitter in tast. The like experiment they say is of a Moldwarps shoulder; for if any corn be sowed or touched therewith before, it will come vp the better and bring more increase. *Democritus* had a deuise by himselfe for all seed & corn whatsoever, namely, to temper & soke the same corn in the iuice of the herb housleeke or Sen-greenes, growing vpon houses either tiled or shindled, which in Greeke is called Aizoon, and in Latine Sedum or Digitellum; for this medicine will serue for all maladies. The common practise of our husbandmen is this: in case through the ouersweet sap or iuice in greene corne, wormes take to the roots: for to sprinkle them with simple oile lees pure and clean without any salt, & afterwards to rake it in. Also, when the corn begins to ioint and gather into knots, then to cleanse the ground, and put off no longer, for feare lest the weeds do get head & ouergrow. This I am sure vpon mine owne knowledge, that there is an herbe (but what proper name it hath I wrote not) which if it be interred in the foure corners of a field that is sown with Millet, it wil drive away Stares and Sparrows, which otherwife would by whole flights and flocks lie thereupon and do much

much harme; nay I will speake a greater word and which may seeme wonderfull, There is not a bird of the aire one or other, that dare enter or approach such a field. Field-mice and Rats are skared away and will not touch corne, which before the sowing was either bestrewed with the ashes of weasels or cats, or els drenched with the liquor and decoction of water wherein they were boiled; howbeit this inconuenience insueth hereupon. That bread made of such corn will haue a smach, and sent strongly of such cats and Weasels; and therefore it is supposed a more expedient and safer way to medicine our feed corne with oxe gall, for to preserue it from the said Mice and Rats. But what remedy against the blast and mildew, the greatest plague that can befall vpon corn? Mary prick downe certaine Lawrell boughes here and there among the standing corne, all the said mists and mildewes will leaue the corne and passe to the Bay leaues; and there settle. What shall we do then to corne when it is ouer-rank? Eat it me downe with sheep and spare not, whiles it is young and in the blade onely, before (I say) it be knotted: and neuer feare harm by the sheeps teeth as neere as they go to the ground: for let it be thus eaten many times, the corn will be the better, yea and the head will take no harme thereby but prooue the fairer. If such rank corne be once cut down with the syth, & no more, certain it is that the grain in the eare will be the longer to see to, howbeit void and without any floure within it; for sowing such seed again, & it will neuer grow nor come vp. And yet about Babylon, the maner is to mow it twise first, and the third time to put in sheep to it for to eat it down; otherwise the corn would neuer spindell, but blade fill, and run all to leafe. But being thus cut and cut again, and eaten in the end, ye shall haue it to increase and multiply 50 for one, *so fertile is the soile: and if the owner be a good husband besides, and vse the ground accordingly, he shall reap thrice as much, euen a 150 fold. And what carefull diligence is that which is here required? Surely neither much, nor difficult: only he must be sure to keep the ground well with watering for a long time together, to the end that it may be discharged of the ouermuch fat within it, which by this means will be washed all away, and the ranknesse delaied. Yet as rich and fertile as this soile is, the two riuers Euphrates and Tigris (which vse to overflow and water the country) bring no filmy mud with them, as Nilus doth in Egypt, wherby the ground is made so fat as it is: neither is the nature of the earth there, giuen to breed herbs that it should need any weeding: and yet so plenteous and fruitfull it is, that it soweth it selfe against the next yere, for the corne that sheddeth in the reaping and mowing, being troden vnder foot into the ground, is as good as a sowing, and riseth of it selfe without any further labor.

Seeing then there is so great difference in the soile, I am put in minde thereby to fit euery ground with seed respectiuelly, according to the nature and goodnesse thereof. This therefore is the opinion of *Cato*, that in a grosse and fat soile, there would be wheat and such like hard corne sown; and if the same be subiect also to mists and dewes, there may be sown therein raddish, millet, and Panick, must be sowne first in a cold and waterish ground; and afterwards for change in a hot soile. *Item*, the red bearded wheat *Far* or *Adoreum*, requireth a chalkie and sandy ground, and namely if it be well watered. *Item*, the common wheat loueth a drie soile, exposed to the Sun, and not giuen much to breed superfluous weeds. *Item*, Beanes will doe well in a sound and fast soile. As for Vetches, they care not how little they be sowed in a moist piece of ground; and such as is apt to run to grasse. Moreover, for the fine winter wheat *Siligo*, whereof the best manchet is made, and also for the common frumenty wheat, there would be chosen an open & high ground, lying pleasantly vpon the Sunne, that it might haue the heat thereof to parch it as long and as much as is possible. As for Lentils, they doe like a good rough and shrubby soile, full of red earth, so as it be not apt quickly to gather a green sord. *Barly would gladly grow vpon a drie ground new broken vp, or else such as be in heart to beare euery yere. And as for Summer (barley) of three moneths, it would be sowne in a ground where it could not haue an early or timely Seednes, & which is so far and rich, as it may afford to beare crop, yere by yere. Finally, to speak to the purpose indeed, this also is *Cato*'s witty resolution in one word for all: if the soile be light and lean, seed it with such grain or forage feed, as require no great nourishment; as for example, with *Cytisus*; and excepting the *Cich-pease*, with all pulse that are vsed to be plucked out of the earth, and not mowed downe: and thereupon indeed are these pulse called in Latine *Legumina*, because they are plucked and gathered in that sort: but in case the ground be good and fat, sow such things as require fuller food and nutriment; and namely, all garden worts and pot-herbes; wheat, both the common and the fine; and Linseed. Then, according to this rule, a

* Felicitas soli

* to be made
wheat & wheat
Lentils

A leane and hungry soile will well agree with barly, for the root is contented with lesse nutriture: whereas contrariwise we allow both lighter, and also more massie and richer ground for our ordinary wheat. In a low and wet piece of ground, it is good to sow the red wheat *Adoreum*, rather than the common wheat *Triticum*: but both it and barley will fort well with a soile of a middle temperature. The hills yeeld a firm, fast, and strong kind of wheat, but the grain is but small. And to conclude, the best kinds of wheat, to wit, *Far* and *Siligo*, challenge for their lot to be seated in a chalky soile, and therewith alwaies wet and soaked in water.

CHAP. XVIII.

Of strange prodigies and wonders obserued in corne: the knowledge and skill of earing and tilling the ground: also diuers sorts of plough-shares.

Albeit I haue in the title of this chapter purposed to write of prodigies seen in corne, yet to my knowledge, there neuer happened but once the like wonder and portentious sight to this which I shall tell, and which befell in the time that *P. Aelius* and *Cn. Cornelius* were Consuls of Rome, that very yere wherein *Annibal* with his whole armie was defeated and vanquished: for then (by report) there was corne grew vpon trees.

But so far as I haue discoursed at large of the sundry kinds as well of corn as of ground, I will proceed now forward and come to the manner of ploughing the earth, after I haue first set downe before all things els, how easie the husbandrie is in Egypt: for there the riuier Nilus seruing in stead of a good ploughman, beginneth to swell and overflow (as we haue before rehearsed) at the first new Moone after the Summer Sunstead. Hee beginneth faire and softly, and so increaseth more and more by little and little; but all the while that the Sun passeth vnder the signe *Leo*, he higheth apace vntill he be risen to his full height: being entered once into *Virgo*, his fury slacketh, then decreaseth he as fast, vntill hee be fallen againe into his wonted channell, which ordinarily happeneth by the time that the Sun is in *Libra*. Now this is obserued, That if he rise not plumb about 12 cubits high, the people are sure to haue a famine of corn that yere: the like also do they make account of, in case he passe the gage of sixteen cubits: for the higher that he is risen, the longer it is again ere he be fully fallen, by which time the Seednesse is past, and men cannot sow the ground in due season. It hath bin generally receiued for a truth, That presently vpon the departure of this deluge and overflowing of Nilus, they were wont to cast their seed-come vpon the floten ground, and presently let in their swine after for to trample it with their feet into the earth whiles it was soft and drenched. And verily, for mine owne part, I beleue wel, they vsed so to do in old time: for euen now adaies also, much more ado they make not about it. Howbeit, this is certaine, that first they cast their seed vpon the slime and mud so soone as the riuier is downe, which commonly falleth out in the very beginning of Nouember, which done, they go ouer it with the plough and giue it a light tilth, so as it may be couered onely and lie vnder a small furrow. Some few there be that afterwards fall a weeding, which point of husbandry they call *Botanifmos*: but the most part, after they haue once sowed and turned their seed into the ground, neuer after make a step into field to see how their corne groweth, vntill they go once for all with syth on neck or sickle in hand, namely at the end of March; for then they fall to reaping and cutting it downe; so as by the moneth of May they sing in Egypt, Harvest in, and all is done for that yere. As touching this corne gathered in Base Egypt, the straw is neuer a cubit long: the reason is, because the seed lieth very ebbe, and hath no other nutriment than from the mud and slime aforesaid; for vnder it is nothing but sand and gravell. But those that inhabit higher vp into the country, namely about Thebais, they be far better provided for corne, because Egypt indeed (for the most part) lyeth low vpon marais ground. Toward Babylon likewise and Seleucia (where the riuers Euphrates and Tigris doe swell over their banks and water the country) the same husbandry is practised, but to better effect and greater profit, by reason that the people may let in the water at sluices and floud-gates, more or lesse with their owne hands, according as they list themselves. Also in Syria, they haue their small ploughs for the nones to take a shallow sitch and make light worke: whereas in many places here with vs in Italy, eight oxen are little enough to euery plough, and to go away withall they must labor at it till they blow and pant again. It is an old said Saw, and may goe for an Oracle to be practised in all parts of husbandry, but in this point of ploughing especially, *Beerned by*

D d d

the

the nature of euery countrey, and see what each ground will abide. To come now vnto our ploughes. Of Shares, there be many sorts: first, there is that instrument called a culter, which serueth to make way before, cutting and cleauing the hard and thick ground as it goeth, before it be broken vp and turned at one side; this sheweth by the flits and incisions that it maketh (as it were by a true line drawn) how the furrows shal go; after which commeth the broad bit of the ploughshare indeed, lying flat-wise, and in earing casteth vp all before it, and cleareth the furrow. A second sort there is, commonly vsed in many places, and it is no more but a bar of yron pointed sharpe in manner of a beak-head or stem of a ship; and it may be called a Rostle. And when the ground is not stubborn but gentle to be wrought, there is a third kind vsed, which is nothing but a piece of yron not reaching all ouer the* plough head and shooing it to the full, but turning vp like a snout with a small point sharp at the end. This neb is somewhat broader in a fourth kinde of shares, but as it is broader in blade and trenchant withall, so it is sharper also at the end; inso-much, that both with the point forward & the edges of the sides, it not only pierces the ground before it pointant like a sword, but also cutteth the roots of weeds which it incountrith: a deuise inuented not long since in Rhœtia. As for the Gauls, they set too besides, certain small roundles or wheels; & a plough thus shod & harnaised, they call in their language* Planarati: the head of their share is broad, fashioned like vnto the bit of a spade: and thus they sow their grounds for the most part, new broken vp and not tilled nor eared before. And for that their plough-shares be large and broad, so much the easier turn they vp good turfs of earth and make broad furrows. Presently after the plough, they throw in their seed, and mould or couer it afterwards with yron-toothed harrows drawn aloft. Lands in this manner sown, need no other raking or weeding; for commonly they make not past two or three bouts in a land, and as many ridges. Finally it is thought, that in this manner there may be sown in one yere by the help of one yoke of oxen, 40 arpens or acres of land ordinarily; if the ground be gentle and easie to be eared; but if it be stiffe and stubborne, they shall haue worke enough to go through thirty.

CHAP. XIX.

¶ *The seasons that be proper for tilling the ground: also the manner of coupling oxen in yoke.*

IN this operation of ploughing ground, I am of mind to follow that Oracle or Aphorisme of Cato, who being asked which was the first and principall point of Agriculture, answered thus, *Euen to husband, order, and tend ground well:* being demanded againe, what was the second, hee made answer, *To plough well.* And when the question was propounded concerning the third point of husbandry, he said, *That it consisted in manuring and dunging it well.* There be other necessarie rules besides, set downe by him as touching this matter; namely, Make no vnequall furrowes in ploughing, but lay them alike with one and the same plough. Passe not the kindly season, but eare the ground in due time. In the warmer countries, lands would be broken vp and fallowes made, immediatly after the Winter Solstice or Sun-stead. In colder regions, touch them not before the spring Equinox or Mid-march. In a drie quarter, plough more early than in a moist: sooner also in a fast and compact soile, than in a loose and light ground: in a fat and rich field, than in a leane and poore land. Looke in what climat the Summer is ordinarily drie and hot, it is thought more profitable to eare vp a chalky or a light and leane ground, between the Summer Sunstead and the Equinoctiall in the fall of the lease. If the climat be such as yeeldeth but little heat in Summer, and therewith many showers of raine, where the soile also is fat and beareth a thick green-furrow, it were better to break vp ground and fallow in the hottest season: where the soile is heauie, grosse, and fat, and wherein a man may tread deepe, I like well that it should be tilled and stirred in winter: but in case it be very light and drie withall, it would not be medled with but a little before* seednes. Here also be other proper rules set down by Cato, pertinent to Agriculture: Touch not (qd. he) in any hand a piece of ground that soon will turne to dust and mire. When thou doest plough indeed for to sow, imploy thy whole strength there: but before thou take a deep stich for all, giue it a pin-fallow before; this commodity cometh thereof, that by turning vp the turfe with the bottom vpward, the roots of weeds are killed. Some are of this opinion, that howsoeuer we do els, a ground should haue the first breaking vp about the spring equinox: a land that thus hath bin once plowed in the spring, is called in Latin Vervactum, & hath that name of the foresaid time Ver[is] spring. Indeed ley grounds & such as

A rest each other yere, must be in this wise followed. Now if you would know what the Latines mean by Nouale, they take it for a field sowed euery second yere. And thus much of the land.

To come now vnto our draught oxen that must labour at the plough: they ought to be coupled in yoke, as close together & as straight as is possible, to the end that whilst they be at work and ploughing, they may beare vp their heads; for by that meanes they least doe gall or bruise their necks. If they chance to goe to plough among trees and vines, they must be muzzled with some frailes or deuises made of twigs, to the end they should not brouse and crop off the yong springs and soft tendrils. Moreover, there ought a little hatchet to hang euermore fast to the plough beame before, therewith to cut through roots within the ground, that might breake or stay the plough: for better is it so to do, than to put the plough to it, to keep a plucking at them or to force the poore oxen to lie tugging & wrestling with them. Also in ploughing, this order

B is to be kept, That when the oxen are* gone down with one furrow to the lands end, they turne and goe vp againe with another; so that in ploughing of a land they* rest betweene whiles as little as may be; but euermore go forward in their labour vntill they haue made an end of their* halfe acre, or halfe daies worke: and verily it is thought sufficient for a team of oxen to breake vp (at the first tith) in one day of restie or ley ground, one acre, taking a furrow or stich of nine inches; but at the second tith or stirring, an acre and a halfe, which is to be vnderstood of an easie and mellow soile to be wrought, for if it be tough and churlish, it is wel if they eare vp at the first, halfe an acre; and at the next time they may go through with one whole acre, how hard soeuer the ground be: for thus haue poore beasts their taske set, and their labour limited by Natures lore and appointment. Euery field to be sown must be eared at first with straight & direct furrows; but thise that follow after, ought to go by as winding. If a ground vpon the pendant or hanging of the hil be to be broken vp, the furrowes must go crosse and ouerthwart: howbeit, the point and beak of the plough-share must be so guided, that one while it beare hard above on the one side, and another while beneath on the other side: and verily in this mountaine worke, the ploughman that holdeth the plough hath toile enough, and laboreth at it as hard as the oxen do. Certes, there be some mountaines that haue no vse at all of this beast, but they eare their ground with raking and scraping hooks only. The ploughman, vnlesse he bend and stoop forward with his body, must needs make sleight worke, and leaue much vndon as it ought to be; a fault which in Latine we call Preuarication: and this terme appropriate vnto husbandrie, is

C borrowed from thence by Lawyers, and translated by them into their courts and halls of pleas: if it be then a reprochfull crime for Lawyers to abuse their clients by way of collusion, wee ought to take heed how we deceiue and mocke the ground, where this fault was first found and discovered. To proceed, the ploughman euer and anon had need to cleanse the culter and the share with his staffe, tipped and pointed at the end like a thistle spade: he must beware that between two furrowes, he leaue no naked balks raw and vntilled: also that the clots ride not one vpon anothers back. Badly is that land ploughed, which after the corn is sowed, needs the great harrows and clotting. Contrariwise, a man may know where there is good worke, namely, if the turfe be so close couched that there be no seams to be seen where the plough-share went: finally, it is a profitable point of husbandry and much practised (where the ground doth both beare and require it) For to draw here and there broad gutters or furrows, to drain away the water into ditches and trenches cast for the nones betweene the lands, that otherwise would stand within and drowne the corne.

CHAP. XX.

¶ *Of harrowing and breaking clods. Of a certaine kind of ploughing vsed in old time. Of the second tith or fallow called Stirring: and of cutting.*

AFTER the second fallow called Stirring, done with crosse and ouerthwart furrow to the first, then followeth clodding, if need be, either with rakes or great harrowes: vpon which inso-much sowing; and when the seed is in the ground, harrowing a second time with the small harrow. In some places, where the manner of the country doth so require, this is performed with a tined or toothed harrow, or els with a broad planke fastened vnto the plough taile, which doth hide and couer the seed newly sown: and in this maner to rake or harrow, is called in Latine Lirare, from whence came first the word Delirare, which is to leaue bare balks vntouered, and by a Metaphore and borrowed speech, to raue and speake idly.

*Alla fides de-
mum uox re-
spondet anari.
Agricola, his
que soli bis si-
gora fenit.
1 Breaking.
2 Sowing.
3 Crusing.
4 Setting vp.
5 Casting
downe.*

It should seem that *Virgil* prescribed, that the ground should haue foure tilthes in all, by these words, when he said, That the corne was best, which had two Summers and two Winters. But if the ground be strong and tough, as in most parts of Italy, there needs a * fift tilth before sowing; and in Tuscan verily they giue their ground, otherwhiles no fewer than nine fallowes, before it be brought into tillage. As for Beans and Vetches, they may be sowed vnder furrow, without breaking vp the ground before; for this is a ready way, gaining time, sauing charges, & sparing labour.

And here I cannot ouerpasse one inuention more as touching earing and ploughing the ground, deuised in Piemont and those parts beyond the Po, by occasion of some hard measure and wrong offered to the people and peisants of that country during the wars. And thus stood the case. The Salassians making rodes into the vale lying vnder the Alpes, as they forraied and harried the country all ouer, assailed also to ouerrun their fields of Panick and Millet being now come vp and wel grown, meaning thereby to destroy it: but seeing the nature of that graine to be such, as to rise againe and to check this iniury, they set ploughs into it, and turned all vnder furrow, imagining by that means to spoil it for euer. But see! what insued therupon: those fields thus misused (in their conceit) bare a twofold crop, in proportion to other yerres; & yeilded so plentiful an haruest, as that thereby the peisants aforesaid learned the deuise of turning corn in the blade into the ground, which I suppose in those days when it new came vp, they called *Ara-trare*. And this point of husbandry they put in practise, when the corne begins to gather and shew the stem or straw; to wit, so soone as it hath put forth two or three leaues and no more.

Neither will I conceale from you another new deuise, practised and inuented first, not aboue three yerres past in the territory of Treuiers, neer to Ferrara. For at what time as their corn fields by reason of an extreme cold winter, seemed to be frost-bitten and spoiled, they sowed the same again in the month of March, raking and scraping the vpper coat of the ground onely without more ado: and neuer in their liues had they the like increase when haruest came. Now as touching all other tillage and husbandry meet for the ground, I will write thereof respectiuelly to the seuerall kinds of corne.

CHAP. XXI.

Of the tillage and ordering of the ground.

The fine Wheat Siligo, the red bearded Wheat Far, and the common Wheat Triticum; Spelt or Zea (generally called Seed) and Barly, when they be new sown, would be wel clotted and couered first, harrowed afterwards, & weeded at the last to the very root; al at such seasons as shall be shewed hereafter. And to say a truth, every one of these is a sufficient worke for one man to do in a day throughout an acre. As for the Sarceling or second harrowing, it doth much good to corn: for by loosening the ground about it, which by the winter cold was hardened, clunged, and (as it were) hide bound, it is somewhat enlarged and at libertie against the Spring tide, and full gladly admitteth and receiue the benefit of the fresh and new come Sunshine daies: let him take heed who thus sarches or rakes the ground, that he neither undermine the roots of the corn, nor yet race or disquiet & loosen them. The common wheat, Barley, the Seed Zea (i. Spelt) and Beans, would do the better if they were thus sarched, and the earth laied loose about them twice: the grubbing vp of weeds by the root, at what time as the corne is ioined (namely, when the vnprofitable and hurtful hearbs are plucked forth and rid out of the way) much helpeth the root of the corn, discharging it from noisome weeds, procuring it more nutriment and seuering it apart from the other green sould of common grasse. Of all Pulse, the chick pease asketh the same dressing and ordering, as the red wheat Far. As for beans, they passe not at all for weeding; and why? they ouergrow all the weeds about, and choke them. The Lupines require nought els to be done to them but only weeding. Millet and Panick, must be clotted and once harrowed vntill they be couered: they call not for a second raking & scraping about them, for to loosen the earth, and to lay fresh mould vnto them; much lesse to be weeded. As for Silicia or Siliqua, * Fenigreeke, and Fasels, i. Kidney-beans, they care onely for clodding, & there

** For so he in-
terpreth it
himself in the
6 chap. of this
booke.*

an end.
Moreouer, there be certain grounds so fertile, that the corn comming vp so thick & ranke in the blade, ought then to be kembed (as it were) & raked with a kind of harrow set with teeth or spikes

A spikes of yron: and yet for all this, they must be grafted or eaten down besides neuertheless with sheep. Now we must remember, that after such cattel hath gon ouer it with their teeth, the same corne thus eaten downe, must of necessity be sarched, and the earth lightly raked and raised vp fresh againe. Howbeit, in Baetria, Africke, and Cyrene, there needs no such hand at all: for the climate is so good, so kinde, and beneficiall, that none of all this paines is required: for after the seed is once sowne, they neuer visit it but once for all at nine months end, at what time they returne to cut it down and lay it upon their thrashing floores: the reason is, because the drought keepeth downe all weeds; and the dewes that fall by night, are sufficient to refresh and nourish the corne.

Virgil is of opinion, That fallowes would be made every yeare, and that our corn field should rest betweene whiles, and beare but each other yere. And surely, I doe find this rule of his most true, and doubtlesse right profitable; in case a man haue land enough for to let his grounds play: them, and rest every second yere. But how if a man is freighted that way, and hath no such reach and circuit lying to his liuing? Let him help himselfe this way: let him (I say) sow his good red wheat Far againe the next yere, vpon that ground from whence he gathered this yeare a crop of Lupines, Vetches, or Beans, or some such grain as doth enrich and muck the ground. For this also is principally to be noted, that some corne is sowne for no other purpose, but by the way as it were to aduance and help others to fructifie: howbeit, small fruit and increase (to speak of) ariseth thereby, as I haue obserued once for all in the booke immediatly going before, because I would not willingly reiterate and inculcate one thing often. For herein regard especially ought to be had, vnto the nature and property of euery soile.

CHAP. XXII.

Of certaine countries exceeding fertile and fruitfull. Of a Vine bearing grapes twise in one yeare. Of the difference and diuersitie obserued in waters.

There is in Africke or Barbary a city called Tacape, situate in the midst of the sands, as men go to the Syrts and Leptis the great: the territory lying about which city, by reason that it is so well watered, is marvellous fruitfull, and indeed passeth a wonder and is incredible. Within this tract there is a fountain, which serueth abundantly for three miles well neer, every way; the head therof verily is large enough otherwise, howbeit the inhabitants about it are serued with water from thence by turns, and dispensed it is among them at certain set hours, and not otherwise. There standeth there a mighty great date-tree, hauing vnder it growing an oliue, vnder which there is a fig-tree, and that ouerspreadeth a Pomegranat tree, vnder the shade whereof there is a Vine: and vnder the compasse thereof, first they sow Frument or eared corne, after that Pulse, and then worts and herbs for the pot, all in one and the same yere. Every one of these rehearsed, liue, joy, and thriue vnder the shade of others. Every foure cubits square of this soile (taking the measure of a cubit from the elbow, not to the fingers ends stretched out in length, but clasped together into the fist) is sold for * 4 deniers Roman: but this one surpasseth all the rest. The vines in the said territory beare twice a yeare, and yeeld their grapes ripe for a double Vintage. So exceeding fruitfull is the soile, that vnlesse the ranknesse thereof were abated and taken downe, by bearing sundry fruits one vnder and after another, so that it were imployed to one thing alone, the inhabitants should neuer haue any good thereof: for by reason of the ouer-ranknesse, each feuerall fruit would perish and come to nought: but now by means of plying and following it still with feed, a man shall gather one fruit or other ripe, all the yeare long. And for certaine it is knowne, that men cannot ouercharge the ground, no nor feed the fertilitye of it sufficiently.

Moreouer, all kinds of water are not of like nature nor of equall goodnesse, for to drench and refresh the ground. In the prouince of Narbon, now Languedoc, there is a famous wel or fountain named Orge, within the very head wherof there grow certaine herbes, so much desired and fought for by kine and oxen, that to seeke and get a mouthfull of them, they will thrust in their whole heads ouer their eares, vntill they meet therewith: but how soeuer these herbes seeme to spring & grow within the water, certain it is, that nourished they are not, but by rain from aboue. And therefore to conclude & knir vp all in one word, Let euery man be wel acquainted with the nature both of his own land which he hath, and also of the water wherewith he is serued.

** 2 lb. 6 d. Rest.
By which reckoning one acre would cost about 200 pound sterling so much in proportion of the whole, as this cubit is vnder our halfe yard or 18 inches.*

CHAP. XXIII.

¶ Of the diuers qualities of the soile. Also, the manner of dunging or manuring grounds.

IF you meet with a ground of your owne, which we called heretofore by the name of Tenera; the soile indeed and principall of all others; after you haue taken off a crop of Barley, you may very wel sow Millet thereupon: and when that is inned and laid vp in the barne, proceed to Raddish. Last of all, after they be drawne, there may be barley or common wheat sowed in the place, like as they do in Campaine; for surely such a piece of ground needs no other tillage, but often sowing. Another order there is besides this in sowing of such soile; namely, that where there grew the red wheat Adoreum or Far, there the ground should rest all the four winter moneths, and in the Spring be sowed again with Beans, so that it alwaies be imploied and kept occupied vntill Winter without any intermission. And say that the ground be not altogether so fat, yet it may be ordered so, that it be ever bearing by turns in this sort, that after the Frumenty or Spike corne be taken off, there be pulse sowne three times, one after another. But in case the ground be ouer poore and lean, it must be suffered to rest and take repose two yeares in three. Moreover, many husbandmen do hold, that it is not good to sow white corne or Frument vpon any land, but such as lay fallow and rested the yeare before.

Howeuer it be, the principall thing in this part of Agriculture, consisteth in dunging, whereof I haue written already in the former book next to this. This one point only is resolved vpon by all men, that none of our grounds ought to be sowed, vnlesse they be manured and mucked before. And yet herein must we be directed by certain rules peculiar and proper thereunto, as follow. Millet, Panick, Rapes, Turneps, or Navews, ought neuer to be sowed but in a ground that is dunged. If there be no compost laid vpon a ground, sow vpon it Frument or bread-corne, rather than Barley. Likewise in grounds that rest and lie fallow euery other yere, albeit in all mens opinion, they are thought good for to beare Beans, yet notwithstanding Beans loue better wherefoeuer they come to be sowed in a ground but newly mucked. He that mindeth to sow at the fall of the lease, must in the month of September before, spread his dung, turn it in with the plough, and so incorporat it with the soile presently after a shower of rain: euen so also, if a man purpose to sow in the spring, let him in the winter time dispose of his mucke vpon the lands and spread it. The ordinary proportion is, to lay 18 tumbrels or loads thereof vpon euery acre. Throwne abroad it must be also before it be dried, and ere you sow, or els so soone as the seede is in the ground, that it may be harrowed in with the corne. But in case this manner of dunging be neglected, it followeth then before that you do harrow, to strew the short small dung in manner of dust gathered out of Coupes, Mues, and Bartons, where foule are fed; or els to cast Goats tredles vpon the land, as if you would sow seed, and then with rakes and harrowes to mingle it with the soile.

To the end now that we may determine fully as touching this care also, belonging to dung, euery sheep or goat and such small cattell, should by right yeeld ordinarily in dung one load in ten daies: and euery head of bigger beasts ten load; for vnlesse this proportion and quantity of muck be gathered, plain it is, that the stranger or master of husbandry, hath not don his part, but failed in liting of his cattell. Some hold opinion, that the best way of mucking a land is, to fold sheep and such like small cattell thereupon, euen in the broad open field; and to this purpose they inclose or impark them within hurdles. In a word, a ground not dunged at all, groweth to be cold; and again if it be ouermuch dunged, the heart thereof is burned away. And therefore the better and safer way is to muck by little at once and often, rather than to ouerdo it at once. The hotter that a soile is, it stands by good reason, that the lesse compost it requireth.

CHAP. XXIII.

¶ Of good seed-corne. The manner of sowing ground well. How much seed of euery kind of graine an acre will take. The due seasons of Seednesse.

THe best corne or Zea for feede, is of one yeares age, two yeares old is not so good: that of three, is worst of all: for beyond that time, the heart is dead, and such corne wil neuer spurt. And

* or rather (after Columella) 30 daies.

A And verily this that is said of one sort may be verified of all kindes. The corne that setleth to the bottome of the mowgh in a barn toward the floore, is euer to be referred for feed. And that must needs be best, because it is weightiest, for therein lieth the goodnesse: neither is there a better way to discern and distinguish good corn from other. If you see an eare of corn hauing grains in it here and there staring distant asunder, be sure the corn is not good for this purpose, and therefore it must be cast aside. The best graine looketh reddish, and being broken between ones teeth, retaineth still the same colour within: the worse corn for seed is that which sheweth more of the white flower within.

Furthermore, this is certain, that some grounds take more seed, and some lesse. And hereby verily do husbandmen gather their first presage religiously, of a good or bad haruest; for when they see the ground swallow more seed than ordinary, they haue a ceremonie to say & beleue that it is hungry, and hath greedily eaten the seed. When a man is to sow a moist ground, good reason there is to make the quicker dispatch, and to do it betimes, for fear lest rain come to rot it. But contrariwise in dry places it is not amisse to stay the later, and attend till raine follow, lest by lying long in the earth, and not conceiuing for want of moisture, it lose the heart & turn to nothing. Semblably, when a man soweth early, he must bestow the more seed and sow thick, because it is long ere it swel and be ready to chit. But if he be late in his seednes, he should cast it thin into the ground, for thick sowing will choke and kill the seed. Moreover, in this fear of sowing there is a pretty skil and cunning, namely to cary an euen hand, and cast the seed equally thorowout the whole field. The hand (in any case) of the seeds-man must agree with his gate and march: it ought alwaies to go iust with his right foot. Herein also this would not be forgotten, that one is more fortunate and hath a more lucky hand than another: and the seed will prosper better and yeeld more encrease that such a one soweth: an hidden secret surely in Nature, and whereof we can yeeld no sound reason. Ouer and besides, this is to be considered, that corn comming from a cold soile, must not be sowne in a hot ground; nor that which grew in a forward and hasty field, ought to be transferred into lateward lands. Howsoeuer, some there be that haue giuen rule clean contrary: howbeit they haue deceived themselves with al their foolish curiositie.

Now as touching the quantitie of seed that must be giuen, according to the varietie both of ground and grain, these principles following are to be obserued: in a reasonable good ground of a mean temperature, an acre in ordinarie proportion will ask of common wheat Triticum, or of the finewheat Siligo, 5 modij, of the red wheat Far, or of * seed [for so we call a kind of bread corn] ten Modij, of Barly six; of Beans as much as of common wheat, and a fift part or one Modius ouer; of Vetches 12; of Cich pease the greater, Cichlings the lesse, and of pease three; of Lupines ten, of Lentils 3; [as for these, folk would haue them sowed together with dry dung] of Erville six; of Silicia or Feni-greek six; of Phaseols or Kidny beans foure; of Dradge or Balmong for horse prouender, 20; but of Millet and Panick 4 Sextars. Howbeit herein can be set down no iust proportion, for the soile may alter all. And in one word, a fat ground will receiue more, and a lean lesse. Besides, there ariseth a difference another way, in this manner; if it be a massie, fast, chalky, and moist ground, you may bestow in one acre thereof six Modij, either of common wheat or of fine Siligo; but in case it be loose and light, naked, dry, and yet in good heart and free, it will aske but foure. For the leaner that a ground is, vnlesse it be sown scant, and the straw come vp also thinne, the shorter eare will the corne haue, and the same light in the head, and nothing therein. Be the ground rich and fat, ye shall see out of one roote a number of stems to spring; so that although the grain be thin sown, yet will it come vp thick, and beare a faire and full eare. And therefore in an acre of ground you shali not do amisse to keep a meane between foure and six Modij, hauing respect to the nature of the soile. And yet some there be who would haue [of wheat] fine Modij sown at all aduenture, and neither more nor lesse, whatsoever the ground be. To conclude, if the ground be set with trees, or lying on the side of an hill, all is one, as if it were lean, hungry, and out of heart. And hereto may be reduced that notable

F Aphorisme, worthy to be kept and obserued as a diuine Oracle: Take not too much of a land, weare not out all the fatnesse, but leaue it in some heart. Ouer and aboue the rules aforesaid, Accius in his Treatise called Praxidicus, comes in with one more of his own: Sow your ground (saith he) when the Moone is in any of these signes, Aries, Gemini, Leo, Libra, and Aquarius. And Zoroastres hath another Astronomical obseruation by himselfe, That the Sun should be entered

* He meaneth Zea or Spelt.

entred into Scorpio, and past twelue degrees thereof, the Moone being at the same time in G Taurus.

Now followeth the deep question to be discussed and determined, As touching the fit time and season of sowing corn: which I haue put off and deferred to this present place. And this would be handled and considered vpon with exceeding great care and regard, as depending for the most part of Astronomie, and requiring good insight in the course and motion of the Planets, in the order also and influence of the fixed stars: and therefore I purpose to lay abroad the opinions and judgments of antient writers principally in that behalf. To begin therefore with Hesiod, esteemed the prince and chiefe of all those that gaue precepts of Agriculture; hee hath set down one certain time of Seednes, to wit, presently after the fall or occultation of the Star Vergiliae, the Brood-hen: and no maruell, for he wrot that book of his in Bœotia, a countrey in the very heart of Hellas or Greece, respectiue to his own countrymen and that climat: and in very truth that was the time of sowing there, as we haue noted and specified already. The best Authors of name, and who haue written most exactly of this argument, are all agreed vpon this point and conclusion, saying, That as all fowles of the aire and foure footed beasts haue their due season of ingendering; euen so there is a certaine time when as the earth is as it were in the ruit, and hath a lust to be conceived. The Greeks in general termes haue described that season in this wise, namely, When the earth is hot and moist. Virgil giueth a precept to sow the common wheat Triticum, and the red bearded wheat Far, after the retrait or departure aforesaid of the Brood-hen Vergiliae. As for Barly, he would haue it cast into the ground betwene the Æquinox in Autumne, and the winter Sun-set: but Vetches, Kidney-beans, or Lentils, at the setting or going downe of the star Boote. Which being so, it would do well to digest the rising and falling both of these stars and also of others, into their set dayes; to shew (I say) at what fixed time they appear, and when again they are hidden. Some there be who are of opinion, that it is good sowing euen before the occultation of the said star Vergiliae, but in a dry ground only and in hot countries: for so (say they) will the seed swell and mortifie the better; which the naturall humiditie only of the earth is sufficient to putrifie and prepare so, that when the next rain falleth, it will be ready to spurt and chit within a day. Others attend and wait seuen dayes after the retrait of the foresaid Brood-hen, for the rain that commonly falleth about that time. There be again that begin to sow in cold regions immediatly after the Æquinox in Autumne: but in hot countries they be later in their seednes, for fear that the corn would be winter-proud and grow ouermuch before the cold weather come. But all writers accord herein, that it is not good sowing before the winter Solstice, when the daies be at the shortest: the reason is verie pregnant and apparant, for winter seed if it be sown before mid-winter, will spurt and spring at the seuen-nights end; sow after that time, you shall haue it lie in the ground forty daies before it make any shew of comming vp. Many make hast and put their seed into the ground betimes, hauing this prouerbe vually in their mouth, *Well may ouertimely and hasty sowing oftentimes faile, but late sowing shall neuer misse and deceiue the master.* Contrariwise, others there are of this minde, That it were better stay vntill the spring to do it wel and surely, rather than to sow in a bad Autumne, and hasard the losing of all. If there be no remedie therefore but to take the spring season, a man must make choise of the time betwene the midst of Februarie [at what time as the West wind Favonius doth rise and begin to blow] and the Æquinox in March. Some haue no regard at all to the constitution and figure of the heavens in this case, thinking the rising and falling of stars, the course and motions of coelestiall bodies to be friuolous matters and nothing pertinent to this purpose, but content themselves only with obseruing the cardinall seasons of the yeare, and some other times, in a generality. In the spring (say they) sow Linsseed, Ores, and Poppies, and so hold on vnto the festiuall holydaies of Minerva, called Quinquatrus; like as at this day throughout all Lombardie and beyond the Po, they go by no other rule. As for Beans and the fine wheat Siligo, put them into the ground in the moneth of Nouember. Let the winter red wheat Far take his fortune and be interred, from the end of September, vntill the midst or fifteenth day of October. Others goe beyond that day, and continue their seednesse vnto to the Calends or first day of Nouember. Now as these men haue no regard at all to the speculation of Nature, and the course of the starres; so the other before named are giuen too much thereto, and wrapt they are so high among the stars and planets, that their owne eyes be dazeled therewith: and besides, their subtilties and quidities do blind others, considering that the pra-

ctice

A rise of these matters must passe through the hands of rustical peasants, who are so far off from conceiuing Astronomy, & the constellations aboue, that they know not one letter of the book, nor neuer learned their A. B. C. Howbeit, we canot chuse but confesse, that the true reason and knowledge of Agriculture, depends principally vpon the obseruation of the order in heavenly bodies: for Virgil saith very wel, That before all other things, a husbandman should be skillfull in the winds, and haue the foreknowledge and prediction of them: also to haue an insight into the nature and influence of the starres, and in one word, to obserue both the one and the other, as well as the Sailers and mariners at sea. Certes, a hard peece of worke it is, and infinite; and smal hope I haue that euer I shall be able to driue into their heads that are so ignorant & grosse of conceit, this high learning and heavenly diuinitie, as touching the Planets, the fixed starres, together with the reason of their orderly motions and coelestiall powers: howbeit considering the great profit that may arise and grow therupon to mankind, I will cast a profer and giue thee attempt to make ploughmen, Astrologers, or Astronomers at leastwise, if it may be. But first my purpose is, to lay open before their eies certain difficultys (which troubled also some of the antient writers, and those not vnskillfull in this part of Philosophie) as touching the course and order of the Starres: which beeing not onely discouered, but also assoiled and cleared, their minds with better contentment may goe from the contemplation of heauen to the rest of Naturall workes, and see those things by the effects, which they could not possibly foresee by their causes.

C

CHAP. XXV.

The times and seasons of the rising and setting of Starres, digested into order, as well by day as night.

A. Evening and morning.

I N the first place, there offereth it selfe vnto vs one difficultie aboue the rest, so intricate, as hardly is it possible to resolue vpon it, namely, as touching the very daies of the yeare, how many they be, in number; and the reuolution of the Sunne, how and when he returneth againe to the same point: For whereas some do account the solare yeare to be 365 daies iust, others adde thereunto certaine quadrants or foure parts of day and night together, to wit, six houres euery yeare, which beeing put together, make the fourth yeare Bissextile or Leape yeare: so as it is in manner impossible to assigne the certaine daies and houres of the Starres apparition or occultation.ouer and besides, how obscure, how darke and confused all this matter is, appeareth manifestly herin, That the times and seasons of the yeare prefixed by antient writers, fall not out accordingly, and namely, in the obseruation of the winter seasons & tempests by them set downe for one while you shall haue them to preuent and come sooner by many daies than ordinary, which the Greekes call *προχρονισμος*: another while to draw back and come later, which they terme *υστερονισμος*. Yea and for the most part this happeneth, by reason that the influence of the coelestiall starres reacheth sooner or later to the earth, and thereafter sheweth the effects: so as, the common people, when they see the said foule weather past, and all cleare and faire againe, say then and not before, That such a planet or Starre hath performed his course, and is vpon the point of his Tropicke or return againe. Moreouer, considering that all these occurrences depend much vpon those stars which be set & fixed in the firmament, yet shall we haue the Planets play their parts besides, which by their motions and operations, worke no small effects vpon the earth, as we haue shewed before, and namely, causing betwene-whiles stormes of raine and haile out of course: no maruell then, if they trouble our heads and put vs out of our account, interrupting that order of the fixed Stars, vpon which we conceiued and built our hope of the faire season, and our new spring. And herin, not we only that be men faile of our reckoning, but other liuing creatures also be deceiued, which naturally haue much more sense and vnderstanding of these workes of Nature, than we, in as much as their whole life standeth thereupon: for the Summer-birds (as great fore-sight as they haue of such seasons and tempests) are ouer-taken and killed by Winter frosts and cold, comming sooner than they looked for, and before they be gone out of the countrey, as also winter foules miscarrie by the hot weather of summer, continuing longer than it was woont, and holding on still after they be come. Hereupon it is, that Virgil expressly willet vs to learne throughly the skill of the wandring Starres or Planets also, and principally giueth vs warning to marke the course of that cold Planet Saturne.

But

But now to come more particularly to the signs which fore-token the Spring: some there be that goe by the Butterflie, and hold that their brood coming abroad, is an assured token that the Spring is come, for that these creatures so feeble, are not able to abide any cold: howbeit, this was checked that very yere, wherein I wrote this Booke or History of Natures work: for seen it was and marked very well, that 3 flights of them one after another were killed with the cold weather that surprised them thrice, for that they were stirring too early, and came abroad too-soon. Yea, and the very birds who are our guests in warm weather, visited vs five or six daies before Februarie, & made a goodly shew of a timely Spring, putting vs in good hope, that al cold weather was gone: howbeit, there ensued a most bitter after-winter streight vpon it, that nipped and killed them in manner euerie one. Hard and doubtfull therefore is the case, that whereas first and principally we were to fetch our rule from the heauens to guide and direct vs, then afterwards we should be driuen to goe by other signes and argumētts meere conjecturall. But above all, the cause of this incertitude and difficultie, is partly the conuexity of the cope of heauen, and partly the diuerse climats obserued in the globe of the earth, by meanes whereof, one and the same star seemeth to rise at sundrie times in diuerse countres, and appears sooner or later to some than to others: and therefore the cause depending thereupon, is not in all places of like validity, nor sheweth the same effects alwaies at the same times. And yet there is one difficultie more, arising from those Authors who writing of one and the same thing, haue deliuered diuers opinions, according to the sundry climates wherein they were, at what time as they obserued the figure and constitution of the heauens. Now were there of these Astronomers three Sects, to wit, the Chaldeans, the Egyptians, and the Greekes. To which there may be added a fourth, which among vs *Cæsar* the Dictatour first erected: who obseruing the course of the Sun, and taking with him also the aduise of *Sofigenes* (a learned Mathematician and skilfull Astronomer in his time) reduced the yere vnto the said reuolution. Howbeit, in this calculation of his, there was found an error, and short he came of the marke, which he aimed at, by reason that there was no Bissextile or leap yere by him inserted, but after 12 yeres. Now, when it was obserued by this reckoning, that the sun had performed his reuolution sooner than the yere turned about, which before was wont to preuent the course of the Sun, this error was reformed: and after euery fourth yere expired, came about the Bissextile aforesaid, and made al streights. *Sofigenes* also himselfe, albeit he was reputed a more curious and exquisite Mathematician than the rest, yet in three seuerall treatises that he made, retracting or correcting that in one booke that he had set down in another, seemed euermore to write doubtfully, and left the thing in as great ambiguity & vndermined as he found it. As for these writers whose names I haue alleaged & prefixed in the front of this present volume now in hand, they haue likewise deliuered their opinions as touching this point, but hardly shal you find two of them in one & the same mind. Lesse maruell then if the rest haue varied one from another, who may pretend for their excuse the diuers tracts and climates wherein they wrote. As for those who lived in the same region, and yet wrot contrarie, I canot tel what to make of them: howbeit, I care not much to set downe one example of their discord & disagreement. *Hesiodus* the Poet (for vnder his name also there goeth a Treatise of Astrologie) hath put down in writing the matutine setting of the star Vergiliæ (which is the occultation thereof by the raies and beames of the Sunne toward morning) to begin ordinarily vpon the day of the Equinox in Autumne. *Thales* the Milesian saith, That it falleth out vpon the five and twentieth after the said Equinox. *Anaximander* writeth, That it is nine and twenty daies after: and finally, *Eutemon* hath noted the 48 day following the said Equinox, for the retrait or occultation of the forenamed Brood-hen star Vergiliæ. Loe what varietie there is among these deepe clarkes and great Astrologers.

For mine owne part I hold well with *Cæsars* calculation, and wil keep me to his obseruations as neere as I can, for that the same wil fit best with our meridian here in al Italie. Yet neuertheless I will not sticke to set downe the opinions of others, because my desseigne tendeth not to one particular place alone, but I purpose and professe to represent vnto the reader the vniuersall history of Nature, and the whole world. But my meaning is not to rehearse the names of euery Author one by one (for that were a tedious peece of work, and would require a long train of superfluous words) but only to put down the regions of euery climate, and that as succinctly and briefly as I can. Where, by the way I must aduertise the Readers, that they remember wel this one thing, how when for breuities sake I name the land or region Attica, they must with-

H

I

K

L

M

all

A all vnderstand the Islands Cyclades: when I name Macedonie, I comprehend therewith Macedonia and Thracia: vnder Egypt I comprise Phoenice, Cyprus, and Cilicia: vnder Boeotia, the regions of Locris and Phocis: and in one word, alwaies the tracts and Countries adiacent and confining together. Item, In making mention of Hellespontus onely, I take together with it, Chersonesus, and all the continent or main firme land, as far as to the mountaine Athos: in naming Ionia, I reckon also Asia the lesse or Natolia, and the Isles thereto adioyning: vnder the name of Peloponnesus I count Achaia, and other lands in that climat lying to the West. Finally, the Chaldeans shall make demonstration, as in a map, of Assyria and Babylonia. As for Africke or Barbary, Spaine and France, maruell not if I passe them ouer in silence: for there is not a writer in all these Nations, one or other, who hath either obserued or penned downe the time when these fixed stars rise or fall. Howbeit it were no hard matter to come to the knowledge thereof in those climates and countries also, by the meridional lines and conformitie of the Parallele circles, which I digested orderly in the sixt booke of this work. For thereby a man may vnderstand the vniforme agreement in the position of the heauen, not only for whole Climats and countries, but also for euery seuerall city by it selfe, vnder the same meridian or Parallel: following stil the known paralels of these regions which we haue named, and taking with all the elevation of any circle pertaining to euery such land as a man wil seeke, and respectiue to the rising of the stars, according to the equal shadowes throughout all those paralel circles. Moreouer, it ought to be shewed and declared, that ordinarily the times and seasons haue their temperature and influence euery foure yeres together: and those lightly return the same without any great alteration, from yere to yere duly according to the course and recourse of the Sun, during that term: many in eight yeres they sensibly do increase, namely by what time as the Moon is in her hundreth reuolution.

Now all the knowledge of the heauens pertinent to Agriculture, standeth principally vpon three sorts of obseruations, to wit, the rising of the fixed stars, the setting of the same, and the four cardinal points, to wit, of the two Tropicks or Sunsteads, and the double Equinox, which diuide the whole yere into foure quarters and notable seasons. Where note, that the rise and fall of those stars before said is to be considered and taken two waies. For first when the Sun approacheth vnto them with his beams, they be hidden and no more seen: likewise after his departure they shew themselves again: and as the one, me thinks, might haue bin more aptly called an Apparition than a Rising, so we should haue framed our tongue in common speech to haue termed the other Occultation, rather than Setting. Secondly, according as the said stars begin either to shine out or be hidden in the morning before the Sunne be vp, or at euening after the Sun is set, they be said to rise and go downe, and thereupon are named Matutine or Vespertine, Orientall or Occidental, according as the one or the other hapneth vnto them in the twi-light, morning, or euening. Certes, when they are to be seene Matutine or Vespertine, it must be at the least three quarters of an houre either before the Sun is vp, or after he is downe: for within that space there is no looking after them. Moreouer, some stars there be that rise and fall twice: But take this with you, ere I proceed further, that all this speech of mine is to be vnderstood of the fixed stars, which being settled fast in the sky, moue not of themselves: and in nowise of the planets.

E As touching the foure cardinal seasons of the yere, whereby it is diuided into foure quarters: limited they be according to the light more or lesse, and as the daies be longer or shorter: for so soon as the winter Sunstead is past, the daies do lengthen; and by that time that 90 daies and three houres be gon and past, they be iust as long as the night, and this is called the spring Equinox. From which very day, for ninety three days together and twelue houres, namely vnto the summer Sunstead, the daies be longer than the night, and so continue vntill the Autumne Equinox, at what time the daies and nights be equall againe; from which time they shorten and decrease as they grew in length and increased before, for eighty nine daies together, and three houres, vntill the foresaid winter Sunstead, when as the daies be shortest. And here you must note, that in all these additions of houres at this present, I mean those only that be Equinoctiall, which diuide the day and night equally in foure and twenty parts, and not the common houres of any other day artificiall whatsoeuer. Also take this with you, that all these distinctions and diuisions of the foure seasons, begin alwaies in the eight degree of those signes vnder which the Sunne is at those times: as for example, The winter Sunstead or shortest day

* Orius & occidit casus Heliodorus.

* Orius & occidit casus Heliodorus.

of

of the yeare, called in Latine Bruma, falleth out in the eight degree of Capricorn, which lightly is vpon the * 18 day before the Calends of Ianuary. The Spring Equinox, when nights and daies be of a length, in the eight degree of Aries. Semblably, the summer Sunstead, or longest day of the yeare, is alwaies when the Sun is entred eight degrees into Cancer. Last of all, the other Equinox in Autumne, when day and night is equall, lighteth vpon the eight degree of Libra. And certes, feldom or neuer shall you see any of these foure daies without euident shew of some notable change in the weather. Again, these cardinall seasons or quarters of the yeare admit also their sub-diuisions still into some notable and special times, obserued in the * very middle space from the one and the other. For betweene the summer Sunstead and the Equinox in Autumne iust vpon the fife and forty day after the same Sunstead, the reitrait or setting of the star called in Latine Fidicula, i. the Harp, beginneth the Autumne. Likewise, betweene that Equinox and the winter Sunstead or shortest day of the yeare, the Matutine or morning fall of the star Virgilix, vpon the three and fortieth day after the said Equinox, setteth the beginning of the winter. So likewise vpon the fife and fortieth day between mid-winter or the shortest day of the yeare, and the spring Equinox, the blowing of the Western wind Favonius beginneth the Spring. And last of all, vpon the three and fortieth day from the sayd Equinox toward the Summer Sunstead, at what time as the star Virgilix doth rise Matutine, begins the Summer

But to retorne again to our Agriculture, begin I will at the Seednes of Frument corne, that is to say, at the rising or apparition of the starre Vergilix in the morning, without making any mention at all of other pety stars, for to interrupt the train and course of our treatise, & to heap difficulties one vpon another, considering that the fierce and vehemēt star Orion is departed a great way off from vs by that time. I am not ignorant, that many fall to sowing corne long before, and preuent this time, beginning their Seednes within 11 daies after the Equinox in Autumne, namely, at the approach and rising of the star Corona, i. the Crowne; promising themselves assuredly to haue rain vpon it for certain daies together. Xenophon would not haue vs begin to sow before that God giue vs some good signe and token so to do. And Cicero our countryman expounding this saying of Xenophon, taketh the raines in * Nouember to be that signe which God giueth: whereas in very deed the true and vndoubted rule to goe by, is to make no great hast into the field for to sow, before the leaues begin to fall: and this euery man holdeth to be at the very occultation or reitrait of the star Vergilix. Some, as we haue before said, haue obserued it about 3 daies before the Ides of Nouember. And for that the said star is so euident in the heauen, and easiest to be known of all others, called it is by the name of a garment hanging out at a Brokers shop. And therefore by the fall or reitrait thereof, as many men as haue a care and forecalt to preuent the couetous dealing of the merchant-Tailor (as commonly such occupiers lie in the wind for gain) guesse aforehand what winter will follow: for if it be a cloudie season when the star retireth, it threatens a rainy winter, and then these merchants presently raise the price of the clokes which they sel: but if the weather be faire and cleare at the setting or occultation thereof, it sheweth a pinching and hard winter toward, and then they hold other garments also very deare. But this Husbandman of ours, who cannot skill at all to looke vp and to learn the order and position of the heauens, must spy this signe of winter amongst his briars and brambles: he must find (I say) the time of Seednes as he looketh downe vpon the ground, namely, when he sees the leaues fallen and lying vnder his feet. Thus may a man know the temperature of the climat, and the yeare, according as he perceiues the leaues be fallen more at one time than another, sooner also in some places, and later elsewhere. For as the season is forward or late, as the climate also is affected, so are the trees knowne to shed their leaues accordingly. And in very truth, this is the truest signe of all others. And the best thing therein is this, that being generall throughout the whole world, and yet peculiar to each place, it neuer faileth. A man might make a wonder hereat, if he did not see and remember, that vpon the very shortest day in the yeare, even in midwinter when the Sun is entred Capricorn, the herb Penroyal vseth of it selfe to floure, either set in chapters, or otherwise hanging and sticking in the shambles; so willing is Nature to shew vs all her secrets, and to keepe nothing hidden from vs. For loe what signes and marks she hath giuen vs, wherby we might know the time of sowing corn: and verily, this is the only true and infallible direction grounded vpon approoued experience, and the same shewed first by dame Nature: for by this dropping & fall of leaues what doth she els

reach

A reach and counsell vs but to haue our eye vpon the ground, and to cast seed into it, assuring vs of a certain supply of dung and compost, by ouerspreading the ground, and cast seed into it, that soon will turne into muck: what doth she else (I say) but by couering the earth in this manner with leaues, shew how carefull she is to defend it against hard frosts and pinching winds, and in one word, thereby putteth vs in mind to make the more hast and get our seed vnder mould: As for V. arro, he is of the same opinion for beans also, and willet vs to obserue the said rule in sowing them at the fall of the lease. Others are of this mind, that the best sowing thereof is in the full Moone. But for Lentils, we should attend the last quarter toward the change, to wit, from the 25 day to the thirtieth. Also, that Vetches must be sowed at the said age of the Moone: for in so doing we shall preferue such pulse from the naked snail. Howbeit, some others there be that indeed would haue these kindes of Pulse to be sowed at this time of the yeare and age of the Moone for prouender and forrage to be spent out of hand: many if we would keepe the same for feed, then we should take the season of the Spring.

B Besides those rules and tokens aboue specified, there is one more, which Nature vpon an extraordinary prouidence ouer vs, hath presented vnto our eies after a wonderfull manner, which Cicero expresseth in these termes

*Iam vero semper viridis, semperq; gravata
Lentiscus, triplici solita est grandescere fetu:
Ter fruges succdens, tria tempora monstrat arandi.*

C The Mastick tree

All times, you see,

Is clad and richly dight,

With green in cold,

With fruit three-fold,

A faire and goodly sight.

As she therefore;

By Natures lore,

Doth fruit thrice yearely beare:

So thereby we

Know seasons three,

Our land to duly care.

Of which three seasons, one is appropriate for the sowing both of Poppy and also of Linefeed: But since I haue named Poppy, I will tell you what Cato saith as touching the sowing thereof: vpon that land (quoth he) where you mean to sow Poppy, burn your winding rods, the cuttings also and twigs of vines, which remained and were left at the pruning time: when you haue burned them, sow wild Poppy seed in the place; for it is a singular medicine being boiled vp to a syrrup in honey, for to cure the maladies incident to the chawes and throat. As for the garden Poppy, it hath an excellent and effectuall vertue to procure sleep. And thus much concerning Winter corne and the Seednes thereof.

CHAP. XXVI.

A summario or recapitulation of all points of Husbandry: and to what out-works in the field a husbandman should be employed, respectiue to euery moneth of the yeare.

B Vt now to compasse vnder a certain brieue Abridgement or Breviarye, all points of husbandrie together: At the same time before named [to wit, at the falling of the lease] it is good also to lay dung vnto the roots of trees; likewise to mold and bank vines: and one workman is sufficient for one acre. Also, where the nature of the ground will beare it, the husbandman shall not do amisse to disbranch and lop his tree-groues, to prune his vineyards, to hollow the ground of his seminaries and nurse-plots with mattocke and spade, and dresse the mould light; to open his sluices and trenches for water-course, to drie and drain it out of the fields; and finally, to wash his Wine-presses first, and then to shut and lay them vp dry and safe. Item, after the Calends or first day of Nouember, let him set no hens vpon eggs vntill the winter Sunstead be past: when that time is come and gon, set Hens hardly, and let them coue 13 eggs, marie better it were all Summer long to put so many vnder them; for in winter fewer will serue: howbeit neuer vnder nine.

Democritus giueth a guesse what Winter we shall haue, by the very day of the Winter Sunstead: for look what weather is then and for threedayes about it, the like winter (he supposeth) will

E e e

will

will ensue. Semblably, for the Summer he goeth by the other Sunstead or longest day of the year: and yet commonly for a fortnight about the shortest day in the year (to wit, during the time that the fowles Halcyones do lay, couve, and hatch their eggs in the sea) the windes lie, and the weather is more mild and temperat. But as well by these signes as all other whatsoever, we must guesse the influences and effects of the stars, according to the euent, within some latitude of time; and not so precisely to limit and tie them alwaies to certain daies prefixed, as if they were bound to make their appearance peremptorily in court, iust then, and faile not.

Moreover, in mid-winter meddle not at all with vines, touch them not in any hand, but let them alone. What then is the husbandman to do? Mary then (quoth *Hyginus*) after seven daies be once past from the Sunnestead, he is to refine his wines from the lees, and let them settle, yea and to poure them out of one vessel into another, provided withall, that the Moon be a quarter old. Also about that season (to wit, when the Sun is in Capricorn) it is not amisse to plant cherrie trees, and set their stones: then is it good also to giue oxen Mast to feed them; and one Modius or pecke is sufficient to serue a yoke at one refectiō: allow them more at once, you glut them and fill them full of diseases: but at what time soeuer you make them this allowance, vntill you hold on thirty daies together, folke say, they will be scabbed and mangie when the Spring commeth, that you will repent for cutting them so short. As for selling timber trees, this was the proper season which we appointed heretofore. All other winter works for an husbandman to be busied in, would be done in the night for the most part: sit vp he must late, and rise betimes by candle light, and watch hardly about them, for that the nights be so much longer than the daies: let him a Gods name find himself occupied with making Wicker baskets and hampers, winding of hurdles, & twisting of frailes and paniers: let him thwite torch wood taperwise with links and lights: and when he hath by day light made ready and prepared thirtie poles or railles for vines to run on, and sixty stakes or props to support them, hee may in the euening make five poles or perches, and ten forks or supporters; and likewise as many early in the morning before day light.

But now to come to *Casars* reckoning of the times & digestion of the coelestiall signes: these be the notable stars which are significant and do rule that quarter which is between the winter Sunstead and the rising of the Western wind Favonius. Vpon the third day (saith he) before the Calends of Ianuarie, which is the 30 day of December, the Dog-starre goeth downe in the morning: vpon which day in Attica and the whole tract thereto adioyning, the star Aquila, [i. the Eagle] setteth (by report) in the euening, and loseth her light. The euen before the Nones of Ianuarie, i. the fourth day thereof, by *Casars* account [I mean for the meridian of Italy] the Dolphin star riseth in the morning, and the morrow after, the Harp-star Fidicula; vpon which day, in Egypt, the star Sagitta [i. the Arrow] setteth in the euening. Item, from that time to the sixt day before the Ides of Ianuarie [i. the eighth day of that moneth] when as the same Dolphin goeth down or retireth out of sight in the euening, vsually we haue in Italy continual frost and winter weather: as also when the Sun is perceiued to enter into Aquarius, which ordinarily fallerh out sixteen daies before the Calends of Februarie [i. the seuenteenth of Ianuary.] As for the cleare and bright star, called the star Royal, appearing in the brest of the signe Leo, *Tubero* mine Author saith, that eight daies before the Calends of Februarie, to wit, the 25 day of Ianuarie, it goeth out of our sight in the morning: also ouer-night before the Nones of Februarie, [i. the fourth day of the same moneth] the Harp-star Fidicula goeth down and is no more seene. Toward the later end of this quarter, it is good and necessarie to dig and turne vp fresh mould with mattock and spade, against the time that roses or vines shal be set, where soeuer the temperature of the climat will beare it: and for an acre of such worke, sixty labourers in a day are sufficient to doe it well. At which time also old trenches and ditches would be scoured or new made. For morning worke before day the Husbandman must look to his iron tooles, that they be ground, whetted, and sharped; that their steles, helues, or handles, be fitted and set to their heads; that shaken tubs, barrells, and such like vessels, be new cowed, bound with hoops, and calstretted; that their stauess be well scraped and cleansed, or else new set into them. And thus much of this Winter Quarter, as farre as to the coming of the Western wind Favonius.

Now as touching the entrance of the new Spring, which is from the rising of the said winde 20 the Equinox in March; *Casus* sets downe for it the time, which for three daies together is variable

A riable and inconstant weather, to wit, seuenteen daies before the calends of March, which is the thirteenth of Februarie. Also 8 daies before the said Calends, which is the 22 of Februarie, vpon the sight of the * first Swallow; and the morrow after, vpon which day the star Arcturus riseth Vespertine, i. appeareth in the euening. In like manner, *Casus* hath obserued, that the said wind hath begun to blow three daies before the Nones of March, to wit, the fift of March, iust with the rising or apparition of the Crab-star Cancer. Howbeit most writers of Astrologie do assigne the first entry of the Spring and the coming of this wind, to the 8 day before the Ides of March, which is the eight of that moneth, when as the star Vindemiator, i. the Grape-gatherer, beginneth to appeare: at what time also the Northerly starre called the Fish, riseth: vpon the morrow whereof, to wit, the ninth day, the great starre Orion sheweth himselfe in his likenesse. In the region Attica where Athens standeth, it is obserued, that the star Milvus, i. the Kite or Glede, appeareth then in that climat. *Casus* moreover noted, that the star Scorpio rises vpon the * Ides of March, those fatal Ides (I say) that were so vnfortunate vnto himselfe: also, that vpon the 15 Calends of Aprill, which is the 18 of March, the foresaid Milvus, i. the Kite-star, appeareth then in Italie, and three daies after, the Horse-star is hidden toward the morning. This is the frethest, the most busie or stirring interual or time between, that husbandmen haue; and yet therein they be ofteneft decciued, for commonly called they are not to their work the very same day that the wind Favonius should by course blow, but when it begins to be aloft; which is a point, to be considered and obserued with right great regard: for if a man would take heede and marke well, this is that moneth wherein God giueth vs that sure and infallible sign which neuer faileth. Now from what quarter or coast this wind doth blow, and which way it commeth, albeit I haue shewed alreadie in the second booke of this storie, yet will I speake thereof more distinctly and exactly anon; meanwhile, from that day (when soeuer it hapneth) on which that wind beginneth to blow, come it sooner (as namely, when it is a timely and forward spring) or come it later, if it be a long winter (for it is not alwaies the * sixt day iust before the Ides of Februarie) from that time, I say, must the rustical paisants settle to their work, then are they to goe about a world of toilsome labour, then must they plie their businesse and make speed to dispatch those things first that may not be defer'd & put off, then or neuer would their summer three month come be sowne, their vines be pruned in manner abouesaid, their Oliue trees dressed and trimmed accordingly: Apple-tree stocks and such like fruits, are then to be set and grafted; then is the time to be digging and deluing in vineyards, to remoue some yong plants out of their seminaries, and digest them in order as they must grow, and to supply their plots with new seed and impes: Canes and Reeds, Willows and Osiers, Broom also would then some be set, and others cut downe: Elmes, Poplars, and Plane trees, ought then to be planted, as hath been said before: then is the meetest season to cleanse the corne fields, to sarcle and rid the winter corn from weeds, and especially the bearded red wheat Far: in doing whereof, this must be the certain rule to direct the husbandmen, namely, when the roote of the said Far begins to haue foure strings or threads to it. As for Beans, they must not be medled withall in that order, before they haue put out three leaues; and then verily they must be lightly gone ouer, and cleansed rather with a light hooke, than otherwise. When Beanes be bloumed, for 15 daies together they ought not to be touched. As touching Barley, it would not be * sarcl'd or raked, but in a drie ground, and when the weather holds vp. Order the matter so, that by the Equinox in March, all your pruning and binding of Vines be done and finished. If it be a vineyard, foure men are enough to cut and tie an acre of vines; and if they grow to trees, one good workeman will be able to ouercome fifteen trees in one day. This is the very time moreover of gardening and dressing rose-plots or rosiers [whereof I mean to treat apart and seuerally in the booke next following] of drawing vinets also, knors, and fine storie works in gardens: this is the only season to make trenches and ditches: the ground also would now be broken vp for a fallow against the next year, according to the mind and counsell of *Virgil* especially, to the end that the Sunne might thoroughly parch and concoct the clots, and thereby make it more mellow for the Seednes. Howbeit I doe like better of their opinion (as the more thrifte and profitable of the two) who aduise to plough no ground in the mids of the Spring, but that which is of a mean temperature: for if it be rich and fat, presently the weeds will ouergrow and take vp the seams and furrows: againe, say it be poore and leane, the hot weather coming so soon vpon the fallow, will dry it too fast, spend all the moisture, and kill the heart therof, which should maintain the seed

* Whereupon the said wind Favonius, is called Chelidonia and Ornithias.

* 13 of March: for vpon that day was he murdered.

* i. the seuenth of Februarie.

* sarrio.

to be sown therein. *Cato* setteth downe the Husbandmens worke for the Spring time, in these teames. Cast trenches (quoth he) couch young branches, and interre them for seminaries by way of propagation, in case the ground be strong, fat, and moist withal. Lay dung to your Elms, Fig trees, Apple trees, and others of like fruit, to Oliues also doe the like: neither forget to manure and mucke your meadow grounds; but al in a drie Moon and about the change. Such fields as are not well watered, defend them as well as you can from the West wind Fauonius: downe with superfluous weeds and rid them out of the way; but if they be hurtful besides, pluck them vp by the roots. Cleanse Fig trees betweene, where need is: make new seminaries and nource-gardens, and repaire the old. All this would be done before the vine begin to floure. Moreouer, so soone as the Peare tree sheweth blossome, begin to plough leane, light, and sandy grounds, but afterwards you may be bold to goe in hand with the fastest, fastest, and most waterish that be: let these (I say) be last tilled. And to conclude briefly, as touching this time of ploughing, let this be the marke and rule to guide you; namely, to set into your worke and put plough in ground, when you see either the Lentisk tree to shew the hope of her first fruit, or the Pear tree to blossom and haue a white head. There would be also a third tilth or crushing of the ground, obserued by the sea: onyon Squilla, among those hearbes which haue bulbous roots: likewise among floures, by the Daffodill. For as these doe bloume thrice, so they point vnto three times of ploughing. For by their first blossome, they shew the first tilth or breaking vp of the ground, by their middle flourishing, the second fallow or stirring: and by their third, the last crushing. Wherein a man may see the wonderfull chaine (as it were) that linketh this world together, whereby all creatures therein contained, giue light some tokens and signes one to another. And this may be obserued also in the yuie (a thing verily not of the least and last regard) that must not in any case be touched or medled withall, so long as Beanes be in their bloume; for that is the very time and meane to hurt it most and kill it for euer. Now, as some plants there be that serue for signes vnto others, so there be other that carie about with them their own mark, as for ample, the fig-trees, for looke when they put forth in the head a few leaues hollow, and with the edges turning upward in manner of a sawcer or goblet, be sure that is the right season and best time to plant them.

Now is it time to returne from whence we were digressed, namely, to the calculation of the principall times and quarters of the yeres, and namely, to the Spring Equinox, which seemeth to be come and gon alwaies by the 8 day before the Calends of April, to wit, the 25 of March. From which day forward, by *Casars* calculation, the calends of April, to wit, the first day of April, are significant, as whereupon the star Vergiliae, i. the Brood-hen, begins to rise or appear in the morning, howsoeuer in Attica and the parts therabout, the same star seems to set or be hidden in the euening vpon the third day before the Nones of April, i. the third of that moneth: and the morow after, the same star doth the like in Boetia. Howbeit, according to *Casars* Ephemerides for Italie, and the Chaldeans for Assyria and Babylon, the foresaid starre goes downe or retireth out of sight vpon the Nones of April, i. the fifth of April: at what time in Egypt, as well *Orion* as his sword [both stars in heauen so called] begin to be hidden. After *Casars* reckoning, the sign or star Libra setteth in Italy the sixth day before the Ides of April, which is the eight of the same moneth, and signifieth store of raine. The fourteenth day before the Calends of May, which is the eighteenth of April, the * Suculae (a violent and troublesome star causing stormes and tempests raging both on land and sea) goe downe at euening in Egypt, but in Attica two daies before, to wit, the sixteenth of April: and in Italy, by *Casars* booke, the day betwene both; that is to say, the seuenteenth day of the said moneth; the influence whereof is effectually for three daies together: but in Assyria it falleth out twelve daies before the calends of May, i. the nineteenth of April. This is the star or signe in the heauens commonly named Palilicium; because the eleuenth day before the Calends of May, i. the 20 of April, the very birth-day and memorial feast of Rome cities foundation (on which day the weather commonly cleareth vp and is faire again) gaue folk a notable occasion of obseruing the said stars retreat or occultation: howsoeuer the Greekes haue teamed them * Hyades, by reason of the rain and foule weather which ordinarily they bring. And wheras our countrymen haue called them in Latine Suculae, i. porkers or snail swine (according to the apparent Greeke denomination, which they thought to be deriued of *su*, founding in Latine *su*, i. a swine, their supposal was false, and bewraied their great ignorance. Moreouer, *Cesar* noteth the eighth day before the Calends of May,

^{or Hyades,}
which some
say are fixe in
number, as
Hesiodotheth
7, as Proclus.

<sup>the word is in
8. of rain.</sup>

- A May, which is the 24 of Aprill, for the time that the star Hoedi, i. the Kids, do rise in Italy: but the next day after, they are obserued to appeare in Egypt, the morrow following, within Boetia and Attica, the Dog-star is marked to be hidden & gon in the euening, when as the Harp-star is scene in the morning. Now the day after that, which is the 5 day before the Calends of May, i. the 27 of April, in Assyria Oryon is quite hidden, and two daies after, the Dog-star. Also the sixth day before the Nones of May, which is the second of that moneth, *Cesar* obserueth, That in Italy the foresaid stars Suculae, rise matutine and thew in the morning: like as also the rainy Goat-starre Capella, vpon the eighth day before the Ides of May, which also is the eighth day of that month, and the very same day the Egyptians do obserue in their country, that the great Dog-star goeth downe in the euening, and is no more scene. Thus you see how these fixed starres and signes aboue rehearsed do ordinarily keepe their courses, ruling and gouerning this time between, to wit, from the Spring Equinox in March, vnto the sixth day before the Ides of May, which is the ninth of the said moneth. During the first 15 daies of which halfe quarter, the husbandmen must make hast and take in hand that work that he was not able to go through with and dispatch before the Equinox; knowing full well, that vpon neglect of this businesse, arose first, the opprobrious reproches that vine-pruners and cutters doe heare on both sides of their eares, from passengers and waifaring men, by way of counterfeiting the song of that Summer-bird which they call the Cuckow: for it is counted so foule a shame, worthie a checke and rebuke, that the said bird should come and find a pruning hooke or bill in a vine at that time of the yere; that folk therefore stick not to let flie at them bold taunts, & broad biting scofs euen in the first beginning of the spring. And verily as these birds, so their song counterfeited in this sort, seemeth to carrie an ominous and cursed presage with them. See how the least things belonging to Agriculture, are guided and carried by naturall reasons! As for the later end of this foresaid time, it must be employed in the sowing of Panicke and Millet; for it is ordinarie and vsual to sow this kind of graine after that hastie Barley is ripe, and also vpon the very same lands where it grew. Now the signe common to them both, testifying as wel the ripenes of one, as the Seednes of the other, are the glo-birds or glo-worms Cicindela, shining in the euening ouer the corne-fields, for so the rustical paisants and country clowns call certain flies or worms glowing and glittering star-like; and the Greeks name them Lampyrides: wherein we may see the wonderfull bounty and incredible goodnes of Nature, in teaching vs by that silly creature.

CHAP. XXVII.

¶ That Husbandmen should not gaze at starres so much, but rather goe by the seasons of the yere meet for sowing. Also, that they should marke the rising, the setting, and the course of the Sun in some hearbes. And of the rising and setting of other starres.

- Nature contented not her selfe to assemble a troupe of starres together in a knot (I meane the Brood-hen Vergiliae, whereby it is a sign in heauen aboue, conspicuous ynough already, and of great mark) but she would needs giue the Husbandman other starres beneath vpon the earth, as signes to shew him the true seasons and times when and how to go to worke: as if she cried out and spake vnto him after this manner: Why shouldest thou looke vp to the heauens, thou that art to till the ground? Why keepest thou a seeking among the stars for thy country worke? Take thy rest and repose thy wearied lims good man, for the nights be now shorter than they were: to bed therefore, for thou hast but a while to sleep: Behold I scatter and spread here and there among thy very weeds and grasse growing vpon the ground, other especial shining stars, and those I represent vnto thine eies in the euening, and when thou doest vnyoke and giue order thy daies work: and that thou shouldst not either plead ignorance, or neglect the same, I prouoke thee to regard and looke thereat, as a strange wonder. Seest thou not these flies or glo-birds aforesaid couer their bright and glittering light, resembling sparkles of fire, when they keep their wings close together, and carrie fire-light about them euen in the night? More than so, I haue giuen thee certaine hearbs to tell thee what it is a clocke, and how the day goes: and to ease thee more, that thou needst not take the pain to auert thine eies away from the earth where thy worke lies, and cast them so much as vp to the Sun, loe the hearb Heliotropium.

liotropium and the Lupine turn about with him. What standest thou staring still into the sky, G and holdest vp thy nose aloft into the aire? why art thou amused vpon the course of the stars, and searchest into heauen? Hast thou not I pray thee another Brood-hen star, other Vergilia, I say, euen before and vnder thy very feet, I mean these prettie glo-wormes? Surely these come duly at their set days: these keep time iust with those of the heauen, and so long as they appeare and shine aboue, these glo and glitter beneath: as if they were linked to that star by some neere alliance & affinitie: in such sort, as a man may resolute & hold for certain, that engendred they be no otherwise but by the influence thereof, and are the very chickens and brood of the fore-said Hen. And therefore conclude we may, that whatsoever soweth his summer corn, and looks to reap fruit accordingly before these are to be seen, deceiueth himselfe, and loseth all his cost and pains. In this meane time and space between, the prettie Bee commeth abroad, and telleth H vs that Beanes bloume, for it is the Beane blossome that calleth her forth of her hiue.

Wouldst thou know another signe yet, that winter is past and all the cold clean gon? when thou seest the Mulberry tree to bud & put out yong leaues, fear no more frost nor hard weather to doe any harme for that yere. Then (hardly) go to thy worke appropriat for this season: now is it good to plant yong sions and quick-fets of Oliues; now is the time to scrape and cleanse here and there where need is, the old oliue trees; and now would meddows be watered, euen presently after the Equinox. What is else to be done in the field this Spring time? Mary, so soone as the grasse in the meadow is grown to a stein and begins once to spindle, then let forth the water, and draine your meddows. Then do the Vines looke for to be disburgened and rid from their superfluous leaues and needlesse branches. And herein there is a certaine gage let, and a rule to I goe by, namely, when as the said burgeons are shot out foure-fingers in length. Where, note by the way, that the disbranching of an acre in vineyard, is one mans work a day and no more. This is the season to giue corne lands their stirring, that is to say, the second tilth or fallow. As for the farceling or weeding off [Winter] corne, it would be done within twentie daies. For let this Equinoctiall season passe, it is thought that farceling and weeding will hurt not only corne, but vines also. To conclude, this is the very time also to wash sheepe.

And now to come againe to our stars where we left. The morrow after the rising or apparition of the star Vergilia before said. *Casars* reckoneth, that the signe Arcturus loseth his light and is hidden in the morning. Also, that the third day before the Ides of May, to wit, the 13 day of that month, the Harpe star ariseth and begins to shine. Moreouer, twelue daies before the Calends of Iune, which is the 21 day thereof, the Kid-star goeth down in the euening: at what time as in the region of Attica the Dog-star also setteth after the same manner. The next day after (by *Casars* account for the Meridian of Italy) Orions Sword beginneth by little and little to retire and goe out of our sight. The third day before the Nones of Iune, i. the third day of that month (after *Casars* Ephemerides for our climate of Italie, as also according to the Chaldeans calculation for the Meridian of Assyria) the Eagle-star beginneth to rise and appeare in the euening. In which region, Arcturus goeth downe, and we lose the sight thereof in the morning, eight daies before the Ides of Iune, which is the sixt of the moneth: howsoever with vs here in Italie, he setteth two daies later. As also two daies after that, i. the tenth of Iune, the Dolphin star appeareth and giueth light in the euening. But seuenteen daies before the calends of Iuly, which is the fifteenth of Iune, we in Italy see the rising of Orions Sword, which they in Ægypt do obserue foure daies after. And eleuen daies before the said calends, to wit, the one and twentieth day of Iune, the same star (I meane the Sword of Orion) beginneth to goe down and be obscured in Italy, if *Casars* Almanack be true. Now are we come to the eight day before the Calends of Iulie, namely, that four and twentieth day of Iune, the very longest day and shortest night of the whole yere, and the Summer Sunstead. In this season also be vines disburgened and cleansed from their vnprofitable leaues and branches: then required it is, and care would be had, that an old Vineyard should haue once digging, and the new twice. This is the time of sheepe-shearing. Now, would Lupines be turned in with the plough, for to enrich and manure the ground. Now are the lands to be crushed and set vp against the seed time. Now Vetches would stand no longer, but be cut for to make forrage. Beanes also would be now mowed downe: M and thrashed out of the way soone after.

CHAP. XXVIII.

¶ Of Medowes and lay grounds for hay and pasture. The manner how to refresh and repaire a meadow. Of fish-stones and whet-stones: of Siches and Sickles. Also, the time for sowing corne, and the description of those fixed starres that gouerne this season.

THE ordinary season to mow medowes, is about the Calends or beginning of Iune. And verily, albeit these kind of grounds ask least care and toile about them for to be maintained, and stand the Husbandman in as little charges, yet something would be said thereof, and these few rules following obserued. First therefore, a ground would be hained in, left lay, and kept for grasse and hey, which is for soile good and fat, for scituation lying either low and moist, or else hauing water at com. mand from a brooke or riuer neere at hand: but aboue all, if it be possible, it must lie so, that it may haue the benefit of the rain by letting in land-floods into it (running along the lanes and high-waies) for to refresh and water the same. Also it is passing good otherwhiles to plough vp a meadow ground (for the grasse will come and grow afterwards the better) so it be wel harrowed or raked thereupon, and laid euen and leuel. Prouided alwaies that hey-seeds, floures, & al, be sowed vpon it (such as be found in hey lofts and ricks, or els that shed out from the rack into the crib or manger) which would be don before the same ground be harrowed as is aboue said. Howbeit, neither ought a meadow that is laid for hey and pasture, be watered the first yere, ne yet grased with cattell, before the second math; for feare least the beasts pluck vp the grasse quite ere it be well rooted, or kill the heart thereof by steining and trampling it vnder their feet. Moreouer, it is to be noted, that such meadow grounds in time will age (as it were) and decay, in which regard, they ought to be helped and restored to their heat againe, by sowing therein either Beanes, Rapes, Navews, or Miller: and when you haue taken a crop of one of these from thence, the yere following they would be sowne with some Frument or bread-corne: and so the third yere left lay for meadow again. Ouer and besides, this would not be forgotten, that at euery math, so often as the grasse is mowed for hey with the syth, there come one after with an hooke, to cut downe those tufts and manes which the mowiers passed ouer & left standing behinde them: for there is nothing worse for a meadow, than to suffer grasse grow to seed. The best hearbe in a meadow is the Clauer grasse or Trefoile: next vnto it is the common grasse called Gramen, i. Coich or Dogs-tooth: the worst is * Mimmulus. Also the Camocke or Whin, called Rest-harrow, and such like coddled grasse, is not for mowiers, for they cry out vpon such, and curse it. Moreouer, they cannot away with the herbe Equifetis, i. Horse-taile, so called for the resemblance it hath to an hors-taile or mane.

The fit time to mow downe grasse, is when the spike or head thereof beginneth once to shed floures, and to wax stiffe: for in no case must it stand vntil it be dr and withered. Be not too late (quoth *Cato*) in your hey haruest, but down with your medows, before the seed of your grasse be ripe. Some, the day before that they set syth into their medows, water them, if there be a brook at hand to be let in. And indeed the best cutting downe of grasse is presently vpon some good dewes that haue fallen ouernight. * In some parts of Italy the manner is to cut their medowes after corn haruest. Moreouer, in old time it was more costly and painfull to mow (by far) than it is now adaaies: for they vsed no other whetstones, but such as were known & ordinary, as brought out of Candy and from beyond sea; which would not giue an edge to their sythes and make them keen, without they were whetted with oile (as Barbers do their rasors, & grauers their fine chezils and caruing yrons:) and to that purpose the mowier went euer with a horne full of oile, tied fast to his shanke. Since which time there haue bin found in Italy other manner of grindstones, with water, which will bring any yron toole to an edge quickly, as well as a file. But these water grindlestones soone get a swarth and presently become greene.

As touching the very Sythes, there be two sorts of them. For those of Italy be shorter than other, easieto handle and weld, and it were among bushes, briars, and brambles. In France where their fields and medows be large, they go a nearer and shorter way to worke, for they make no more ado, but cut the grasse down at the middle, and let that alone which is short. Our mowiers here in Italy, take but one hand to it, and that is commonly their right, and so cut downe their grasse: thus you shall haue a man ordinarily in one day go ouer an acre and cut it down cleane.

* Somer read
Mimmulus,
i Nummulus, i.e.
Penny-grass.

* Haply he
meant a sea
cond math.

* Which isal-
most three of
our falc lodes.

Also it is one mans work to bind the hay of one acre into bottles : and vsually you shal haue in G
so much ground * 1200 prety ones, of foure pound weight apiece. So soon as the grasse is cut
down and laid in swath, it must be tedded, brought into windrowes, and turned eftswoones with
the Sun : neither ought it to be cocked vp but dry : for otherwise, if this be not carefully looked
vnto, you shall see it reeke and smoke againe by the morning, for the heate that it hath caught
within : but let the Sunne take it besides, you shall be sure to see the cockes kindle and be of a
light fire.

* Some call it
woodcock hey

So soon as this first grasse is down and the hay made, the meadow must presently be watered
again, to the end there may be a second math of rowen hay in * Autumne, which the Latins call
Cordum. In the territorie of Interamna they vse commonly to mow their meadowes 4 times H
a yeare, yea, though they lie high and far from the benefit of water. And in most places of Ita-
lie thrice is ordinarie : and the rowen grasse afterward commeth vp so thicke and high for pa-
sture and forrage, that it yeeldeth as great a benefit as the crops of hay before : mary, to raise
this commoditie and gain those know full well who are drouers of greater cattell, breeders al-
so of yong colts, and principally Chariottiers that keepe choach-horses ; for all these haue the
best means to imploy this grasse for their most behoofe.

To proceed now to the consideration of the heauens. The summer Sunstead falleth out al-
waies [in Italy] to be iust vpon the 24 day of Iune, at what time as the Sunne is entred eight de-
grees within Cancer, as hath bin said before. This is that great point & Tropick of the world :
now is the heauen in most force, and the Sun at the highest of his power and vertue. From the
midwinter or shortest day of the yeare, vnto this present, during the space of fixe moneths the I
daies lengthen : and now the Sunne being passed far into the North, and hauing mounted and
raught to the highest pitch of his intended laborious journey, beginneth to turn againe from
this Tropick of Cancer in the North, and benderth his course toward the other Tropick of Ca-
pricorn in the South, intending by this means for other six months to lengthen the nights and
to shorten the daies proportionably. Which the husbandman no sooner seeth, but hee taketh
his opportunitie, and woteth well, that now is the time wherein he must of necessitie make hast
to gather and inne the fruits of the yeare, each one respectiue in their several seasons : now or
neuer ought he to lay in his provision against the winter : now must he arme and prepare him-
selfe, no remedie, to withstand the rigour of cold and frosty weather : and therefore meet it was,
that dame Nature, our kind Nurse and tender mother, should giue vs warning hereof, and fore- K
shew this alteration of the yeare, by most vndoubted and infallible arguments. Hereupon she
hath presented these marks and signes to the husbandman, & brought them euen to his hand,
commanding sundry trees vpon that very day of the Sunstead to turne their leaues toward the
Sunne, as if she pointed vnto them by the finger, and shewed how that Planet began to retire
from whence he came : so willing she is, not to conceale from him these secrets, that she hath
not set these marks vpon wild and sauage trees far remote, out of the way, (because shee would
not haue him take so much pains as to go into desert forrests, vnpassable welds and mountains,
to seeke for the signes and tokens aforesaid) ne yet vpon such as grow within good townes and
cities, much lesse then those that serue and are in request for arbors and vines onely in Hort-
yards and gardens of pleasure, that he should be faine to leaue his ferme in the country and go L
thither (and yet these trees also testifie of the Sunstead and his returne :) what hath she done
then ? Mary she hath caused the oliue tree, which he seeth euery houre planted at his very foot,
to turne about her leafe : she hath willed the Linden, a tree that hee hath recourse vnto euerie
foot for a thousand vses, to doe the like : she hath enioyned the white Poplar or Aspe also the
femlable, wedded as it is so commonly to Vines. Hast thou not enough yet (quoth she) and
will not all this make thee perfect ? Looke then to the Elme, at the foot whereof thou plantest
thy Vine, and which thou seest continually indowed and enriched therewith, I wil make it also
to turn the leafe when the Sun returns. Thou strippest her of her leaues and branches for thy
cattell to eat and brouse ; thou gettest vp into it for to prune the Vine, How canst thou chuse
but see the leaues turned ? How canst thou be ignorant, but take knowledge of the Solstice M
and Suns return ? Surely that side of the leafe which was from the Sunne but yesterday, is now
clean contrary and looks toward him ; and in one word, all are turned vpside down. Thou occu-
piest the oisier and willow twigs euer and anon, to bind and tie one thing or other ; lowest they
grow of all the rest, and higher thou art than they by the head : neuer looke vp nor cast thine
eye

A eie aloft for the matter : thou shalt see how I wil haue them also, growing euen vnder thy nose,
to turn their leaues about and follow the Sun. Why complainest thou and whinest, saying, I am
a simple countreiman, I am not book learned, I neuer went to Grammer schoole, and I wot not
what : Certes, I cannot do withall if thou be ignorant of the heauens, and canst not skill of the
celestiall signs and course of the stars : it shal not be long of me, but thou maist be an Astrono-
mer and Clarke sufficient. For if all this teaching wil not serue, in case, I say, thine eies wil not
instruct thee enough to learne these signes : one signe more will I present vnto thine eare. Doe
but listen to the growning tune and pitiful mone that the Quoiist and Stocke-doue makes : and
neuer think that the Sunstead is past, before she haue left singing, and that thou seest her couve
and sitting vpon her eggs.

B But now to go on still with our Astrologic and Speculation of heauen as we haue begun : a-
mong those stars that rule this season from the Sunstead before said, vnto the setting or occul-
tation of the * Harp-star, *Caesar* saith, that six daies before the Calends of Iuly, to wit, the 26 of
Iune, Orion riseth to the inhabitants of Italy : how soeuer the star called Orions * girdle, appea-
reth not to the Assyrians before the fourth day of Iuly, vpon which day in Egypt the star Pro-
cyon, i. the fore-runner of the Dog-star Syrius, sheweth in the morning, and commeth in very
hot and fierie : and surely what Latine name this star should haue among the Romanes, I wot
not, vnlesse we would haue it to be Canicula (i.) the lesse Dog-starre, according to the pourtrait
that it seemeth to resemble among those fixed stars in the firmament : and yet is this a signe in
the heauen of great marke and consequence, as anon we will declare more plainly. The third

* *Fidicula*,
* *Zona*.

C day before the Nones of Iuly, i. the fift of the said moneth, after the Chaldeans account in Sy-
ria and Babylon, the star named Corona, i. the Crowne, goeth downe in the morning ; but on the
very same day to the people of Attica, Orion is seene to rise all whole as he is. The euen of the
Ides of Iuly, which is the 14 of that moneth, the same Orion ceaseth to be seene of them that
dwell in Egypt : and sixteen daies before the Calends of August, to wit, the seuenteenth of Iu-
ly, the foresaid star Procyon riseth to them in Assyria. The morrow after, which is the 18 day,
all Writers in manner doe agree vpon the rising of that significant and notorious signe, which
commonly we call the Dog-star, to wit, when as the Sun is entred the first degree of Leo, which
falleth out to be the 23 day after the Summer Sunstead. And in truth both sea and land doe
find and feeble the arrivall or coming of this star, yea, and many a wild beast besides, according

D as we haue shewed already in place conuenient. Neither is this starre lesse worshipped and ado-
red than those renowned Planets which carrie the names of gods and goddeses, and haue Di-
uine honours done vnto them. He it is that inflameth and setteth the Sunne on fire : to him is
imputed the greatest cause of that extreame hot weather during the canicular daies. Two daies
before, which is the fifteenth of Iuly : on which day the *Egle* star goeth downe in the morning,
and then the Etesian winds (called the Auant Curriers) begin, which *Caesar* thought were not
felt nor knowne in Italy vntill eight daies after, namely, the three and twentieth of Iuly : on
which day the *Eagle* star is knowne to set and goe out of sight in the region of Attica and that
tract, in the morning. As for the Roiall star seated in the breast of Leo, *Caesar* affirmeth, That it
goeth downe and is all hidden betimes in the morning, the thirtieth day of Iuly, which is three

E daies before the Calends of August. Now the eight day before the Ides of August, which is the
sixt day of the moneth, the one moiety or halfe of Arcturus goeth downe : but the third day be-
fore the same ides, which is the eleuenth of that moneth, the Harpe star by his occultation or
going downe, beginneth Autumne, according as the same *Caesar* noteth ; but indeed and verily, as
it hath bin found by true demonstration, it is the sixt day before the Ides, to wit, the eight of Au-
gust. This halfe quarter or six weeks space, is that which determineth of vines and vintage, by
the meanes of that star which wee called Canicula, the very ruler indeed ouer Vineyards, and
whereupon dependeth the good or bad season for all our grapes and wine the next yeare. From
hence it is, and not otherwise, that the vines are said to be blasted, & the grapes burnt (as it were)
to a coale. No haile stormes, no tempest of wind or raine is comparable hereunto, nor doth the
like harmeto corn and grapes : this causeth many a time scarcitie, and bringeth extreame dearth
and famine, which neither haile nor tempest doth. As for these tempests, they indamage haply
and hurt some fields here and there : but the blast before said plagueth whole countries, far and
neare. Howbeit, it were no hard matter to deuise how to withstand and remedy this mischiefe,

F but that men haue more pleasure to take occasion for to blame Nature & her workes, vnder pre-
tence

tence and colour of such vntoward blasts, than to seek and find means to do themselves good. It is reported of *Democritus*, the first Philosopher who vnderstood himselfe, and afterwards shewed vnto the world, the great affinity and agreement that was between heauen and earth (which study of his the richest and wealthiest citizens where he liued, seemed to scorne and despise) foreseeing by the course of the stars, to wit, by the rising that would be of the *Virgilæ* or Broodhen (according as I haue shewed already, and wil anon declar more at large) that oliues would faile that yere, and consequently a dearth insue of oile; bought vp all the oile in that tract & country, which as then for the hope of great plenty of Oliues, bare no price: whereat the great merchants of the city (who dreamed of nothing lesse than of a scarcity of oile, considering the oliues made so faire a shew vpon the trees) were astonied and maruelled much, that *Democritus* so learned a Philosopher, & a man who they knew, was wont by his profession to content himself with pouerty, to set his mind vpon nothing so much as a quiet life, and wholly to busie his braine in attaining of knowledge and learning, was now on a sudden become a merchant. In the end, they perceiued what the cause was, & acknowledged his diuine skill in foreseeing & preuenting a dearth, and he for his part shewed plainly, That it was not auarice & desire of lucre that moued him to take this course, but to let the world know, that if he were so disposed, hee could by the means of his learning only, be soon a rich man (as indeed he grew hereby to exceeding wealth) for presently of his own accord he restored again to the former owners, who God wot were displeased with themselves for that they had don, & wished with all their hearts, that they had met with the like bargain, he remitted (I say) all this commodity which he had gotten into his own hands, at their own prices: resting herein, that he had made good prooue, how soone and easily he could be rich when he would. Long time after him, *Sextius* one of our Roman Philosophers, did the like at Athens, & after the same manner: whereby we may see, in what stead learning and literature serueth, if a man will imploy the same to his own benefit. And I care not much verily to giue the countriman a taste thereof, as much as concerns the cause of the Blasting aforesaid, & to intermeddle the same with his rustick affairs, but as plainly and with as great facility & light-sonnesse as possibly I can. Most are of this opinion & haue deliuered in writing, that as wel the blasting in corn called *Ruligo*, as the singding & burning of vines named *Carbunculus*, proceed from certain dewes setting vpon them, which caught a caustick quality from the Acrimony and extraordinary heat of the Sun. This conjecture and reason of theirs, I hold in some part to be false, for the Sun neuer doth harm either to the one or the other in this respect; but looke what K blast fouer it be that singdgeth or burneth corn and vines, it is occasioned by cold only: & if you take good heed and mark how this cometh about, you will say it is cleare & past all peradventure: for first & forme of this is well known, that it neuer hapneth but in the night, or at leastwise before the Sun is risen: so as we may concludewel & truly, that all this dependeth vpon the influence of the moon. For neuer shall a man see any of these hurtful blasts, but either about the change or full of the moone, namely, when she is in her greatest force: for at both these times, as well in the coniunction with the Sun, as in opposition, powerfull she is, and in some sort may be termed Full, as I haue many a time already said. But at the change, look what light she receiued from the Sun, the same she sendeth all vp again to heauen. Great difference therefore there is in the effects of the moone in both these habits, and the same very euident and apparant: for be it in summer, hottestt shee is in the change; but in winter, cold: contrariwise, the moone in Summer being at the full, maketh cold nights, and in winter is warme: the cause whereof is plaine and manifest. Howbeit, *Fabianus* and the Greeke writers, render another reason: for in summer time, the moone being in coniunction with the Sun, and meeting with him when he is in a circle nearest vnto vs, must of necessitie be inflamed with the fire that it receiue from the sunne, so neare vnto her and vs both: whereas contrariwise, during winter, in the time of the change or coniunction, she cannot chuse but be cold, as being remote farre from vs; like as the sunne also, who is retired far South toward the Tropicke of Capricorne. Semblably, at the full in Summer, she is far off from vs, as being opposite vnto the sunne so neere vnto vs: no maruell therefore if shee be cold in regard of our climate: but in winter, at the same time of her opposition as she is nearer vnto vs, taking her course through the summer circle of the sun, so we may conclude, she doth moderate the rigour of winter cold, and consequently that then, ordinarily she is warme. Considering then that the moone being (at the full in summer) so cold, and charged ordinarily as shee is of her owne nature with much dew, what wonder is it if at such a time the

- A the frosts and dewes that fall be exceeding cold and congealed againe, which are the cause of all the said blastings: But aboue all we must remember, that there be 2 sorts of accidents coming from aboue, that mightily do wrong and annoy the fruits of the earth. The one wee call tempests, which comprehend hails, storms of wind and rain, and such like impressions of the air, which whensoever they do light, are termed by the Lawyers, *Vis maior*, i. the greater violence: and these for the most part proceed from some of the horrible and dreadfull starres, as wee haue many times noted, to wit, *Arcturus*, *Orion*, and the *Kids*. Of the second sort of these calamities, be they which happen when the weather is still and quiet without any trouble of windes, in the fairest and clearest nights, and no man euer perceiue them vntill the harme be done: these bee more publick and vniuersall, these differ much from the former, some call them *Mildewes*, others B Hot-Planets; some again term them blasts and singding Carbuncles: but it skills not much what names they haue, for all men confesse that scarcity and dearth is their effect. And forasmuch as no man hitherto hath written of these Blasts, &c. I mean to deliuer mine opinion of them, and first to set downe the cause and reason thereof.

CHAP. XXIX.

¶ Of the Tempests and calamities incident to the fruits of the earth, as well in Winter as Summer: the means also to remedie such accidents causing sterilitie and scarcity.

- C These Blasts, these wicked Planets, that singde and burne the fruits of the earth, besides the influence and power of the moone, proceed from other causes, and twaine especially, and those are not to be found in many coasts and quarters of the heauen: for the star *Virgilæ*, regardeth principally the fruits of the earth, and ouer them is very predominant; as being the only star, which in her rising and apparition begins Summer, in her fall and occultation, sheweth the entrance of winter; by which means for six moneths space, whiles she is in sight, she compriseth haruest and vintage, and generally causeth all fruits to ripen kindly or vnkindly.
- There is besides in the heauen, a certain white circle called the milkway [or *Watling street*] which is not imaginarie as others, but very conspicuous and easie to be seene. By the influence of this circle, as it were out of some vnder, all plants receiue their milke, their humidity and nutriment, and namely, by the means of two notable stars obserued therein; to wit, the *Ægle* in the North-side thereof, and the *Dog Canicula* (whereof we made mention in place conuenient) situate toward the South. This circle then passing through the signes of the *Zodiacke*, *Sagittarius* and *Gemini*, and stretching by the centre of the Sun, cutteth the Equinoctial line twice in two seuerall places: the commissures or ioints of which two signes, are possessed of the one side with the *Ægle* star, and on the other side with the *Dog Canicula* aforesaid. No maruell therefore if all countries habitable and fruitfull, be subiect to the influence of these two starres and feele their effects; because in those parts only of the *Zodiack* wherein they are placed, the centre and middle of the earth, together with the centre also of the Sun, agree and meet just in one and the same point of the Equinoctial. Hereupon it is, that if in the seuerall seasons of these two E stars aboue said (to wit, when the *Ægle* and the *Dog Canicula*, doe either rise or fall, appeare or couch) the aire be pure, cleare, and mild, and thereby the humour genitall distilling from that Milkeway or circle aforesaid downe to the earth, meet with that faire and calme aire, then all plants and fruits of the earth are the better for it, and prosper mightily. Now in case the moone either at change or full, do send downe and sprinkle vpon them a cold congealed dew (in manner aboue said) the humor and nouriture likewise descending from the Milk-circle, is infected therewith and becometh bitter, killing all the fruit vpon which it falleth: much like as if a young babe or infant new borne, should sucke bitter and vnwholsome milke, and thereupon soon after die. Thus you see, how in euery climate whatsoeuer, the correspondence of the moone and the stars aboue said more or lesse, causeth those vntoward Blasts, *Mildewes*, and such like; not in like measure at one time and in euery place. Which is the cause that this kind of iniury and calamitie is not felt at one instant throughout the world, no more than the day is one and the same in all parts of the earth: for the *Ægle* (as I haue said before) ariseth to vs in Italy thirteen daies before the Calends of Ianuarie, i. the 20 of December: now before that day be past (by the ordinarie course of Nature) there can be no assured hope of the fruits of the earth, but that they may

may miscarry: but if it fall out besides, that the moon vpon that day do change, all fruits as well winter fruits as those which be called Hastic, must of necessity take harme and be hurt thereby. Rude and simple, I confesse, were our ancestors in old time, and altogether vnlettered, howbeit as wittie (as shall appeare) in their obseruations and ceremonies, as our Moderns in these daies be resolute, with all their skill they haue, grounded vpon reason and consequence: for according as they feared three seasons about the rest; lest they should do harm vnto the fruits of the earth; so they instituted as many Holy-daies and set feasts; to wit, Rubigalia, Floralia, and Vinalia. As touching Rubigalia, they were ordained first by King *Numa* in the eleuenth yeare of his raigne, which now we celebrate a * seuen-night before May-day, to wit, the 25 of April: the reason is, for that about this time cometh the subiect to the blast. Howbeit, *Varro* following the order obserued in his daies, setteth downe this dangerous time to be, when the Sun is in the tenth degree of Taurus, and occasioned thereby. But indeed, according to the calculi of others, the true reason and cause is this, That about nineteen daies after the Spring Equinox, diuers nations haue obserued foure malignant daies, which reach to the 28 of April: in which time, the Dog-star Canis coucheth (a violent and dangerous star of himselfe by nature) and before which of necessity the other little star Canicula must retire and goe downe. And therefore those ancestors and forefathers of ours, instituted the feast of Floralia, as they were aduised out of the bookes of *Sibylla*, in the 516 yeare after the foundation of Rome citie: who ordained also, that the said feast should be held the fourth day before the Calends of May; to wit, the 28 day before named of Aprill, for this intent, That all Plants might bloome kindly, and shed their blossoms as well. *Varro* setteth downe this day to fall out, when as the Sunne is entered foureteen degrees into Taurus. Therefore in case it be full moone during these foure daies of the Feast Floralia, not onely come, but all other plants whatsoever that shall blossome, are sure to take great harme thereby. As for the former feast called Vinalia, which is kept five daies before; to wit, the * 23 of Aprill, it concerns nothing at all the fruits of the earth, but was appointed onely as a fit time for to tast wines. And yet for all these obseruations before-named, there is none of them pertinent either to Vines or Oliue-trees, for their time of conception beginneth at the rising of the star Vergilia; to wit, six daies before the Ides of May, which is the tenth of that moneth, as we haue before declared. About which time, there be other foure dangerous daies, in which husbandmen in nowise would haue any grosse and filthy stinking dewes to fall, for feare of their Vines and Oliues (for about all, they stand in dread of the starre Arcturus, which goeth downe the morrow after the rising of Vergilia, and commonly brings with it raw and vnkindly rimes) and much lesse that the moone should happen to be in the full at such a time: the fourth day before the Nones of Iune, which is the second of the same moneth, the Eagle starre appeareth the second time in the euening: a iudiciall day is this day, and it will goe hard with oliues and Vines now in their flour, especially if the full moon also light therupon, and giue euidence against them. For mine owne part, I would thinke verily, that the Summer Sunstead ordinarily vpon the 25 of Iune is as dangerous; as also the rising of the great Dog-star which alwaies falleth out to be 23 daies after the said sunstead, if so be that the moon doe change in any of those two daies; for then commeth the harm by extremity of heat, which doth so bake and harden the yong kernels of the grapes and Oliues new knit, that they be tanned as it were into a tough callosity, that they can thrive and grow no more from that day forward. Again, the full of the moone is as hurtfull as it, to vines and Oliues, if it happen the fourth day before the Nones of Iuly; to wit, the fourth day of the said moneth, at what time the lesse Dog-starre Canicula riseth to them in Egypt; or at leastwise the sixteenth day before the Calends of August, which is the seuenteenth of Iuly, when we in Italy discover the rising of the said Canicula. Likewise if the moone chance to be in the full betwene the twentieth and three and twentieth daies of the said Iuly, what time the Eagle star goeth down, the same danger befallerh Vines and Oliues: as touching the second Feast Vinalia, which is obserued & kept thirteene daies before September, to wit, the 20 of August, it is not to be ranged among these, as being of another nature, and instituted at first for other causes: *Varro* would haue this feast to beginne at the departure of the Harpe-star Fidicula, which beginneth to retire in the morning, and which day he setteth downe for the first entry of Autumn: saying moreouer, that this feast was instituted for appeasing the stormes and tempests incident to that season. And now obserued it is, that the said Harp-starre Fidicula setteth six daies before the Ides of August, which is the 8 day of that moneth: Thus much

* S. Markes day
with vs.

* S. Georges day
with vs.

As much as touching the causes of sterilitie and death, occasioned by the constellations, according to sundrie seasons of the yeare, after that calculation which I goe by: But I will not bind euery man thereto, for well I know and cannot denie, but the readers may change and alter the same at their pleasures, according to the diuersitie of the climats, in regard whereof the obseruation also of those dangerous daies may vary from mine account. For this present, it sufficeth my turne that I haue set down the true cause in Nature, from whence proceed those calamities: all the rest besides, I refer to each mans consideration, who for any thing that I haue said, may take their libertie and obserue what they thinke good. Certes this shall be found cleare and doubtlesse in the end, That these vnkind dewes and dangerous blasts are occasioned by one of these 2 causes, to wit, either the full or change of the Moone. And herein verily, I cannot chuse but meditate vpon and admire the wonderful goodnes and bounty of same Nature, first in this That she hath so limited and determined the set course of the stars, that these calamities cannot possibly happen euery yere; neither yet oftentimes in the same yere, but only some few nights, to wit, in the change or full of the Moone: and when they will come, it is easy to foreknow and fore-tell. And to the end that we should not need to feare those dangers euery moneth, shee hath so ordered the matter, and diuided the influence of the Moone by night in such sort, that setting aside two daies in Summer, the changes of the Moone do no harm at all: no more than the full in Winter: neither are these two new Moones to be feared, but in Summer nights, and those shortest of all other, whereby they haue lesse time and leasure to offend the earth: for all the day long they haue not the same force, nor worke the like effects.ouer and besides, for ease a matter she would haue it for to know either the conjunction or opposition of the Moone, that the very Pittmire (the filliest and least creature of all other) by instinct of Nature, is our guide to the one and the other: for in the change she is seen commonly to rest and take her repose, whereas at the full Moone she works and labours both night and day. And that we should not be ignorant of the Dogge-star Sirius his rising, looke what day he sheweth first, the little Nonett or bird, called in Latine Parra, goeth aside, and appeareth not again before he be hidden and gone downe. Contrariwise, the Lorient, Greene-finch, or Canarie bird Vireo, commeth abroad the very day of the Summers Sunstead, and not before, that we should not pretend ignorance of the longest day in the yere, a time wheron dependeth so great a consequence. But be it change or be it full, neither the one nor the other habit of the Moone is dangerous, no not in the very night season, vnlesse it be cleare and calme; that is to say, faire starlight, and all winds laid: for neither in cloudy and close weather, ne yet when the winds are aloft, doe any dewes fall. And at such times also as they vse to come, there is a remedie provided against them: for when thou fearest a blast or Mieldew, lay me altogether ouer the fields and Vineyards (by heaps) Vine-cuttings and such drie sticks, chaffe, straw, and other like mullock, drie weeds and shrubs which haue been plucked out of the ground, and set them all on fire; the very smoake will helpe this matter, and auert the danger from corne and grapes. And as for the fume of chaffe and straw, it is good against stinking fogs and mists, when they are thought to doe harme. Some there be that prescribe to take three Crab-fishes aliue, and to burn them in hortyards among the trees: to preserve and defend them against the stingyng blast called the Carbuncle. Others take the flesh of the fish Silurus, & rost or broile it softly vpon the fire, on the wind side, to the end, that the fume and smoke thereof might be caried and dispersed al ouer the Vineyard, to chase away seorching blast aforesaid. *Varro* a firmeth, That if about the retreat of the Harpe-star Fidicula, which is the beginning of Autumne, a man paint a cluster of grapes, and consecrate it to the gods among the Vines, the stormes and tempests of wind and raine will doe lesse harme to the fruit hanging thereupon. *Archibius* in a booke that he wrote to king *Antiochus*, saith, That if a land-toad be put into a new earthen pot that neuer was occupied before, and the same entered and couered within the ground in the midst of a corn field, the corne shall take no harm that yere by any tempests whatsoever.

As touching the rustical work which should be don in these six weeks space, the Husbandman ought to giue his lands a second fallow, to dig about the roots of trees, & (where the heat of the cuntry doth so require) to moule and banke them again: howbeit, such as be budding and putting forth new shoors, would not be digged, vnlesse the soile be very good and rank. Seminaries or nouree-gardens would now be farclod & cleansed. Adresse himselfe he must, and make all ready against Barley haruest. Now is he to prepare his barn plot and thrashing floore,

FFF

and

and to paue it with a coat of chalk, tempered wel & wrought with oile dregs, by *Catoes* aduise; *G* howsoeuer *Virgil* is more curious in this behalfe. For the most part of Husbandmen, after they haue laid it euen and leuell, they go ouer it again with Oxen dung, tempered to a thin consistence with water, for to bind the said floore: and this is thought to be a sufficient remedy, that the dust shall not rise.

CHAN. XXX.

Of Corneharuest: of common Wheat: of Chaffe: and the order how to keepe corne.

As touching the manner of cutting downe or reaping corne, there be diuers and sundry deuises. In France where the fields be large, they vse to set a iade or an asse vnto the taile of a mightie great wheele barrow or cart made in manner of a Van, and the same set with keen and trenchant teeth sticking out on both sides: now is this carre driuen forward before the said beast vpon two wheeles, into the standing ripe corne (contrary to the manner of other carts that are drawne after) the said teeth or sharp tines fastened to the sides of the wheele barrow or cart as foresaid, catch hold of the corn eares, and cut them off: yet so, as they fall presently into the body of the wheele barrow. In some places the fashion is to cut with a hooke or sycele the straw in the midst: and betweene euery two sheaues they sit down, and then crop off the eares iust at the straw. In other countries they vse to plucke vp the standing corne by the root: and in so doing, perswaded they are that this is a very neer and ready way to saue charges, & may serue for one tilth well enough: but by their leaue, they rob the ground by the means of her kinde and naturall moisture. The reason of this diuersitie is this: in such countries where they vse to thatch their houses with straw, they saue it to the full length, and go as neare as possibly they can: againe, where there is but small store of hay, they make account of their short chaffe for to litter, yea, and fodder their beasts. As for Panicke haulme, it neuer serueth the turne in any place for thatch. And for Millet straw, they burne it ordinarily. Barly straw is kept and saued very carefully for an excellent fodder, that kine and oxen loue very wel. To conclude, in France they haue another way to gather their Panicke and Millet especially; to wit, cutting the same eare by eare vpon a combe with a handle to it [as Barbers vse to clip or poll mens heads.]

Concerning the deuise of thrashing, it is practised sundry waies. In some places they vse to crush the corne out of the eares with heauie and rugged dreies drawne ouer it, as it lieth vpon the barn floore. In others, they set mares to stampe and trample it vnder their feet, and so driue it out: and there be againe who beat and flap it forth with flails or cudgels.

Common wheat, the later that it is reaped, the better it is found of cast: but the sooner that it goeth downe, the fairer is the graine, and more full and weighty. The best rule for the one and the other, is this; to goe downe with it, and lay it along, before the corne be very hard, and when it beginnes once to looke russet, and to haue a browne or reddish blee. And here, remember the old said Saw that may goe well for an Oracle, Better two dayes too soone, than as many too late.

For the inning of the fine wheat *Siligo*, and the common *Triticum*, it is much after one sort, and they would be ordered alike, both in barne, rike, and thrashing floore. The good red bearded wheat *Far*, because it commeth hardly out of the huske, and asketh some painefull thrashing, ought to be laid vp in the garner, huske, and all together, euen in the chaffe; only it would be rid from the main straw, and depouled of the eiles or beard growing to the eare. Chaffe is good chaffe in many countries, and serues in stead of hay. Where now, that the finer and smaller that the chaffe is, and inclining nearer to poudre, the better it is thought to be. And therefore the best simply is that which commeth of Millet: the next in goodnesse, Barley maketh: but the common wheat *Triticum* yeeldeth the worst; vnlesse it be for poore hungry iades and such laboring garrons.

The straw or haulm that remaineth standing as boltings when corne is reaped by the eare or after it be well dried, the manner is to lay vpon some hard, craggie, and stonie ground, then all to beat and belabor it with cudgels, that it may be soft and serue in stead of litter to lie vnder cattell. If chaffe faile for fodder, the very haulme or straw left in the field, ought to be braied and beaten short, to supplie forrage in manner following. Cut it downe so much the sooner, let it be well

A well sprinkled and drenched a long time in brine: and when it is dried againe, make it vp round into certaine bottels or bals, and so giue it to kine and oxen for their fodder. There be that set fire on it, and straw both, in the field whereas it grew. And surely, *Virgil* highly commendeth this for a great point of Husbandry: the chiefe reason herof was, to burn the feed that the weeds shed, and to kill their roots that remaine vpon arable ground. In sum, the diuers fashions and manners of reaping, proceed from this, That in some countries the harvests be greater than in others: and besides, Reapers and Mowers are not to bee had in all places alike, nor so easily hired.

It followeth now by good order, as a matter hereunto annexed, to write of the manner how to lay vp and keep corne for store. Some are very curious and indeed ouer precise in this point, and **B** namely in building of barnes and garners. For they giue order, that in any wise their walls bee raised of bricke, and those three foot in thickenesse. Also, that they be filled top full and closed, vp aloft, that they haue no windows at all, nor any place open to let in or admit wind. Others would haue windowes, but those onely toward the Northeast winde, where the Sunne riseth in Summer, or else into the North: and in any hand the bricke must not be laid with lime, for that it is most hurtfull to corne. For as touching oile dregs or lees, how they would haue it to be vsed, I haue declared already. Contrariwise, in some countries they build their garners of timber and set them aloft in the aire hollow from the ground, bearing vpon piles and posts of wood: & such are deuised of purpose with many ouertures on euery side to receiue wind, insomuch, as from beneath also the bourds and planks be open to take all aire. And yet others there be who **C** mislike altogether these kinde of frames, being of this opinion, That in such solars and lofts reared so high into the aire, the corne will diminish and wither: yea, and if it lie neare to a rooffe of tiles, it will be in danger to catch a fire and burne. There bee that would not haue corne to be turned in the garner, for to breath and take the winde: for that the mite or Weevill that eateth graine, neuer commeth within foure fingers of the bottome of the heap, so that beneath that gage there is no danger, and therefore it needs no such stirring at all. *Columella* saith, That it were good to haue a garner open into the West, for that the winde *Faunius* is kinde for corn: whereat I maruell very much, considering that otherwise hee is carefull to seeke out the driest places. Last of all, there be some that would haue a land-toad tied by one of her hinder or longer legges, and so to hang at the dore and entrie of the garner or barne where corne lieth. For **D** mine owne part, if I should speake what I thinke, I hold, that the chiefe and principall thing for the keeping of corne well, is to know and vse the very fit time and season of laying it vp. For if it bee gathered when it is not fully ripe, and before it haue the due parching from the Sunne, and the firme substance hardened as it ought, likewise if it bee brought vnto the barne or garner hote, it cannot bee auoided, but Vermine will breed therein to doe it much harme.

That some kinde of graine will continue good and sound, yea, and last longer than other, there be many causes. For either it proceedeth from the skinne or huske, when it is manifold, as in Millet; or the fatnesse of the marrow and floure within, which maintaineth and feedeth the graine as the radicall and nutritiue humour, as in *Sesama*, or lastly, of bitternesse, as in *Lupines* and the small bitter *Cichets*. As for the *Frument* or wheat *Triticum*, apt it is most of all other to ingender and breed weeuils and such like wormes, because it soone catcheth a heat, and is quickly enchaufed, by reason of the thicke and fast substance of the owne, and besides inclosed and clad it is within a thicke and grosse skin, which is the bran. Barly hath a finer and slenderer husk: and some Pulse a thinner than it: such therefore are not subiect to the said vermin: howbeit, Beanes be covered with thicke pillings or tunicles, and therefore easie to take an vnnatural heat and putrefie. Some vse a deuise to keepe *Frument* corne a long time, with oile lees, bestowing onely the sprinkle of one Quadrantall, to a thousand Modij thereof. Others bestrew amongst it the powder of Chalke brought either from *Chalcis* or *Caria*, or else lay some Worme-wood among it. There is a kind of earth in *Olynthus* and *Cerynthus* within *Euboea*, which is highly commended in this case, for it will not suffer corne to corrupt. And lightly, **E** what corne soeuer it be that is laid vp in the eare, neuer taketh any harme, keep it as long as your will. Howbeit, the best and most assured way to preferue corne, is in caues or vaults vnder the ground, which in Latine be called *Siri*, as the practise is in *Cappadocia* and *Thracia*. In *Egypt* and *Barbarie*, aboue all things they looke to this, That their garners stand vpon a drie ground:

and how drie soeuer the floore be, yet they lay a course of chaffe vnderneath between it and the corne. Moreouer, they put vp their corne in garners and bins, together with their spike or care, by which deuise they are sure (if no aire come in) that no hurtfull worme or vermine will breed among it. And verily *Varro* saith for certaine, That wheat in that manner laid vp, will last fiftie yeres, and Millet an hundred. He affirmeth moreouer, that beans and other pulse will keep good a long time in oile barrels, if they be calked with ashes. Hee auoucheth moreouer, that beanes were knowne to haue continued from the time wherein king *Pyrrhus* liued, vnto the Pyrats war, which vnder the conduct of *Pompey* the Great was dispatched & brought to an end; which prouision of beanes had bene laied vp 120 yeres before, and kept close in a certaine caue vnder the ground, within the citie of Ambracia. The Cich pease is the onely graine that is subiect to no vermine breeding in it while it lieth in garner or barne. Some there are who take certaine pitchers of earth hauing vineger in them, vpon which beeing well bedded in ashes and done ouer with pitch, they make their heapes of Pulse, and by this meanes they are verily perswaded, that no Meuils, mites, and other wormes will breed therein to doe harme. Others, for to preserue their pulse, put them into salt-fish barrels, but they dawbe the same first with a certaine kind of mortar made of plastre. Last of all, for to keepe Lentils, there be that drench them with the vineger confected with Laserpitium, and when they be dried againe besmeare them ouer with oile. But will you haue indeed one short rule for all? To be sure that no worme or vermine shall breed in your corne, cut it downe and gather it about the change of the moon. Therefore it skil-leth very much to know a mans intention, whether he mean to keep or to sell his corne: for certain it is, that as the moone groweth, so doth corne wax full and great, and therefore filleth the strike a great deale better.

CHAP. XXXI.

Of Vintage: and the particular seasons in Autumne.

According to our partition of the yere into foure quarters, it followeth now by course and order, to treat of the Autumne, which beginneth at the retreat or occultation of the Harp star Fidicula; and so forward to the Equinox in September: from whence I will proceed to the couching or going down of the Brood-hen Vergilia, the very beginning & first entrance of the winter. In which mean spaces and equall distances, both before & after the said Equinox, these stars following are significant, and set out the particular seasons: first, the day before the Ides of August, (i. the twelfth of the moneth) the star called the Horse, appeareth in the Hemisphere to the people of Attica: but at euen-ride the same day, the Dolphin star setteth vnto them in Egypt, and likewise to vs here in Italy, according to *Casars* account. Also eleuen daies before the Calends of September, which is the 22 day of August (by the calculation of *Cesar* and the Chaldeans) the star named in Latine *Vindemiator, i. the Vintager, beginneth to shew in the morning, both to the Assyrians and the Italians; a trustie vaunt-curriour, bringing certain tidings with him, and promising assured hope of a vintage, & that the grapes will be ripe anon: and for a farther token and appearance thereof, marke the grapes then, for now beginne they to change colour. To the people of Assyria, the fift day before the Calends of September, i. the 28 of August, both the star Sagitta seemeth to go downe, and withall the Etesian winds lie, and giue ouer blowing. The Vintager himselfe, to wit, the starre so called, to the inhabitants of Egypt riseth vpon the Nones of September, i. the fifth day of the moneth: vpon which day to the people of Attica, the star Arcturus riseth in the morning; and the Sagitta, i. the Shaft, goeth downe in the euening. To come now to the Ides of September: fife daies before them, that is to say, the ninth day of the moneth (after *Casars* card) the star called Capella, i. the Kid, sheweth it selfe here in Italy toward euening: but the day before the said Ides, i. the twelfth day of the moneth, the one halfe of Arcturus appeareth to rise: and then for fife daies together (his influence is such) hee keepeth such foule work both by sea and land, that both Sailer and Husbandman fee the violence of his arriuall: and this reason is giuen therof, for if (say they) at the fall or occultation of the Dolphin star, there be no showers of raine, none will Arcturus bring with him at his comming. An euident signe there is, that the starre Arcturus will not be long before he arise, and that is this, The departure of the Swallowes; for this is certain, if he chance to surprise any of them, and that they be not gone before out of the country, they are sure to pay for their

rather, *Provin-*
demiator, i. the
forerunner of
the Vintage,
beginneth
for *Vindemia-*
tor followeth
afterward in
September.

A their long tarrying and to die for it. The 16 day before the calends of October, which is the sixteenth day of September, the star called Spica, i. the eare of corne, which the signe Virgo (i. the Virgin) holdeth in her hand, riseth in the morning to them in Egypt; & then the Etesian winds also are quiet & laid in that country. Howbeit after *Casars* calculation, this falleth out vpon the fourteenth day before the Calends of October, i. the 18 of September, to vs in Italy; and by the account of the Chaldeans, a day after to them that dwell in Assyria. Moreouer, the 21 of September (after the supputation of *Cesar*) the Knot of the two fishes, a signe or star so called, goeth downe to our sight in Italy, like as the very Equinoctiall starre it selfe three daies after. After which time, *Philippus*, *Calippus*, *Dositheus*, *Parmeniscus*, *Conon*, *Criton*, *Democritus*, *Eudoxus*, and *Ibn*, agree all in this (and that is maruell to see so many Astrologers to accord) That foure daies before the Calends of October, the star Capella, i. the Kid, riseth in the morning: and the morrow after, the [two] Kids doe the like. The sixth day before the Nones of October, which is the second day of the moneth, in Attica and the regions adioining, the star named the Crowne appeareth betimes in the morning: but in Asia, and to vs Italians (after the reckoning of *Cesar*) the next day following, the star Heniochus goeth downe in the morning. Two daies after that, to wit, the fift of October (according to *Casars* computation) the star named Corona, i. the Crown, beginneth to shine in Italy: the next day after, the stars called the Kids, lose their light in the euening: The eighth day of October, which is eight daies before the Ides thereof, the shining star within the foresaid Corona, sheweth it selfe in Italy by *Casars* booke: but the thirteenth day of the same moneth, the star Virgilia, i. the Brood-hen, sheweth in the euening: and vpon the very Ides, which is the 15 day of the moneth, the Crowne star aforesaid appeareth full & whole. Now six daies before the Calends of November, i. the 27 of October, the stars called *Sucula*, or the raine Hyades, begin to shew in the euening: and the last day of October, which is the Euen of the Calends of November (if *Cesar* say true) Arcturus setteth in Italy, and the said *Sucula*, or the raine Hyades rise the same day together with the Sunne. Foure daies before the Nones of November, i. the second day of the moneth, Arcturus goeth down in the euening: like as the fift day before the Ides, i. the ninth day of November, the star named Orions sword beginneth to retire: and likewise two daies after, the Brood-hen Virgilia is hidden and appeareth no more.

As touching now the country worke that Husbandmen are to employ themselves about during this space of time or halfe quarter thus described, they ought if they did well, to sow Naveves, Turneps, and Radishes, vpon those daies that I haue appointed heretofore: and let them neuer goe by the voice of the rurall fort, who thinke it not good to sow so much as Rapes, after the departure of the Storke: for sold may we be here in Italy, euen after the feast Vulcanalia to put them into the ground; as also our early white corne, together with Panicke. But after the going down of the Harp star, good I hold it to sow Vetches, Phaseols, or Kidney beans, as also the dradge or bollemong for horses, called Pabulum, i. Forage: howbeit, folke say, that this forage would not be sowne but about the new moone. This is the time also to strip greene leaues, and slip tendrons from trees, thereof to make fodder for beasts in winter: and one good daies worke it is for a man to fill foure hampers made of purpose for such brouse. Now if these leaues be gathered and prepared before-hand when the moone is in the wane, they will neuer corrupt and putrifie. Greene must this brouse be in any wise when it is gathered, and not seere or withered.

To come now vnto Vintage: men thought in old time that it was not ready nor the grapes ripe enough, before the Equinox in September: but now adaies I see how they goe to worke euery where sooner, and fall hastily to gather grapes halfe ripe. Therefore it were not amisse to set downe certaine markes and signes to direct the husbandman for this season. The rules therefore to guid him, be these: gather no grapes hot, that is to say, when they be dry, nor vnlesse a good shower of raine come betweene: yet take heed you must, that you pluck them not full of dew, namely while the dew that fell ouer-night, doth stand vpon them; nor before the Sun hath drunke vp the said moisture, and dried them. Set into thy vintage hardly and fall to gathering, when either the vine leaues or greene branches called the Portoirs, doe fall and rest vpon the old wood: or when, after you haue taken one grape from the rest of his fellows standing thicke together in the cluster, you see the void place not to fill vp again, where it appeareth that the grapes and kernels about it, grow no more. Very good it is for grapes, if they be gathered when

the moone is croissant, to wit before the full. At one pressing ordinarily, there should be filled G
twentic measures called Cuicis, Cowles: now is this measure for liquours the greatest of all o-
thers, and by which the rest ought to be proportioned justly. For to presse thus many Cuicis at
once, and to serue twenty acres of vineyard, one wine- presse is sufficient; and likewise to hold
the same, one vessell or keelvat. Some vse but one plank or stocke to presse withall, but better it
is to haue them double: although those that be single be exceeding huge. As touching these
pressing planks, it is not so much their thickeesse and massiue substance that is to be regarded, as
their length; for indeed the longer and larger they bee, the better they doe their deed. In old
time they vsed Ropes, leather thongs, and leauers, and by force of them pulled downe and forced
hard the presse Planks. Within this hundred yeres were the frames deuised which we call Gra-
canica, wherein the maine planks or vpper stocke of the presse, went with a vice in manner of a H
skrew, for the wrinkles of the spindle were fitted and serued in an engine or wind lace in manner
and forme of a star, set fast to the worm or vice of the spindle afore said, and which as it was turned
and wrested, lifted vp or let downe the presse planks or lid, together with the weights of
stones thereupon: and verily this fashion of presses was held to be best and most approoued: how-
beit, it is not 22 yeares since there came vp another deuise and inuention to make small presse-
planks, lesse winding pieces also, and the whole frame shorter: howbeit in the middest thereof
stood vp the spindle of the said skrew or vice. Now when they purposed to squeeze out the
grapes, they laid certain lids or planks thereupon called Tympana, and those they forced with a
wrest from aloft, vsing also the poise and weight of such matters as they heaped vpon the planks
afore said.

Moreover, the custome is to gather apples and such like soft fruit, about this time, with this
observation or direction, namely, To go in hand with this businesse when any are seen to fall of
themselves, as mellow and ripe, and not blowne downe by force of wind and tempest: now is the
season also to presse out the lees or sediment of the grapes: now the time serueth to seeth new
wine to the halfe, and make cuit thereof, with this regard and consideration, that if the moon be
vpon the change, this be done by night; but if in the full, by day-light. As for other daies, it mat-
ters not much, so that the cuit be boiled either before the moone rise, or after she be gon downe.
Moreover, heed is to be taken, that the grapes of yong vines or such as grow vpon low and mar-
rish grounds be not vsed hereabout; and much lesse those that be not fully ripe. In the seum-
ming also and clarifying of the liquor while it boileth, no other thing but leanes are meet for K
that purpose: for if any wood come neare & touch the vessell or lead wherein the liquor is sod-
den, it is thought that the cuit will be smokie and smell of the fire. Furthermore, the ordinarie
time of vintage holdeth forty foure daies, to wit, from the Equinoctiall in September, vnto the
going downe or occultation of the Brood-hen Vergilia: after which time, remember the ora-
cle and common prouerbe, That wine vessels are not to be roined, calked, and trimmed in cold,
for good husbands would do this before-hand in hot weather. Howbeit in these daies I haue
seene those that for want of vessels haue gone in hand to tun vp their wine in the beginning of
* Ianuarie: yea I haue knowne when the vintage hath bene so great, that wines newly pressed
haue bin kept in fish cisterns: and for default of other pipes & tuns, when the wine-cellars haue
bin full already, I haue seen them that would let the old run out into such cisterns, for to make L
roome for the new, and such as a man would say were neither made nor vnmade. And yet this is
not so often practised by occasion of the exceeding store of new wine that lieth on mens hands,
as of a wicked and couetous mind that some carry to gather a deale together for to set vp a Mo-
nopolie, thinking thereby to make a dearth and to raise the price of their wines, to the great de-
riment and hinderance of a common-weale. But a good and honest minded householder wil rest
contented to furnish himselfe with a competent prouision of wine, and lay vp no more than hee
shall spend every yeare: and this is found also by experience the most profitable way for his
purse. As for all other matters concerning wine, because I haue already spoken at large thereof,
I will here lay a straw and make an end. But this would not be forgotten, that so soon as grapes
be gathered, men must high them apace and make hast to get in their Oliues: for presently after
vintage and wine-pressing, they must thinke of drawing their oile, and employ themselves in o-
ther works of this season, which are to be done a little before and after the retreat of the Brood-
hen star Vergilia.

CHAP.

CHAP. XXXII.

The consideration of the Moone and her course, respectiue vnto

the Husbandrie.

Hereunto shall be annexed a discourse as touching the Moone and the Winds, together
with the Prognostication depending thereupon, as much as may be thought necessarie
and pertinent to Agriculture, to the end, that our rusticke Astrology may in all points be
accomplished and perfect. For Virgil also was of this opinion, That some businesse and workes
B of Husbandrie were to be digested and diuided according to the daies of euery Moone in or-
der as they goe, following herein the vanity and ostentation of Democritus. For mine owne part
as I haue hitherto in all my work throughout rested vpon the good & profitable rules of our
ancestors, so in this point also I meane to take their direction, and goe by no other. According
to their ordinances and precepts therefore, this first is to be obserued, That whatsoeuer is to be
cut, gathered, or laid vp, be it wood, fruit, or grain, it ought to be done rather in the wane of the
Moone, than whiles she is croissant toward the full, & lesse danger is it subject vnto. Item, Touch
no mucke, nor lay it vpon thy lands but after the full, when shee is in the wane. Item, Dung thy
ground, whiles the Moone is in conjunction with the Sun, and in the first or last quarter. Guelde
Bores and Steeres, lib Rams and Kids or yong Goats in the old moon. Item, Set Hens to couye
C eggs in the new of the moon. Make thy trenches by night in the full Moone. Likewise, couer the
roots of trees with mould when the Moone is at the full. Item, In moist grounds sow, and set ei-
ther in the very change, or 4 daies before and after. As for the winnowing, vanning, and laying
vp either of corne or pulse, they would haue it done in the old Moon, about the last quarter. As
also, That Pepiniers, Seminaries, or Nource-gardens, be made when the Moone appears aboue
the earth. But grapes ought to be troden & new wine pressed, whiles she is vnder our horizon.
Likewise, timber is to be hewed, and many things else to be don accordingly, whereof we haue
written already in their seuerall places. And albeit the obseruation of the Moone, her age and
change is easie ynough, and nothing more familiar: whereof also I haue written sufficiently in
the second volume of this worke: yet further to instruct the simple countryman who knoweth
D neuer a letter of his book, and to set before his eies the true order and course of her motion and
mutation, let him but obserue and marke thus much, That so often as she is seen Westward af-
ter the Sunne is gone downe, and shineth the forepart of the night onely, she is croissant, and in
her first quarter, and then shall a man discern euidently by the eie the one halfe of her bodie
light: but looke when, as the Sun setteth in the West, she riseth at the same instant queragaint
him in the East, so as they may be both seene at once, but sure she is in the full. Againe when so-
euer she riseth late in the West, and shineth not in the fore-part of the night, but toward the
morning, make account she is in the wane, and sheweth but her halfe part againe. But so long
as she appeareth not at all, and giueth no light, assure your selfe she is in the conjunction with
the Sunne all that while and this in Latine is called Interlunium, [i. the change.] Now at the
E very instant of her conjunction or change, and the first day, vntill she be one day old, she will re-
maine aboue the earth so long as the Sunne is there also with her: the second day she will be in
our hemisphere by night, tenne * twelue parts of an houre, and a quarter of one twelfth part.
Thus in proportion will she rise vpon the fifteenth day after her change, multiplying euery day
the said portion of the houres. When this fifteenth day is come, she wil be all the night whole
aboue the earth, and all day long vnder. Vpon the sixteenth day of her age she will remaine be-
neath our Hemisphere, after the first day, ten parts of twelue, and one quarter of a twelfth part
within night, before she rise and shew her selfe, and so will she keepe daily the foresaid propor-
tion just, in late rising: diminishing still her light by the same degrees, vntill the change. And
looke how much she staieth in the beginning of the night vnder the earth ere shee appeare in
F our Horizon, so long in the next morning wil it be after day-light ere she go downe. Finally, e-
second moneth the Moone hath thirtie daies full out, like as each other moneth betweene the
wanteth one of that number, and hath but nine and twentie. Thus much concerning the course
of the Moone in regard of Husbandrie.

CHAP.

Culeus containeth 20 Amphores, which is 320 Congi or gallons.

* Somereade Nouember.

* Si minutes.

CHAP. XXXIII.

¶ The consideration of the Winds, respectiue to Agriculture.

AS touching the winds, the reason and quartering of them is more intricate, fuller also of scrupulous doubts and difficulties, than was the obseruation of the Moon: notwithstanding that, there is not a day in the yeare goes ouer our head, but we may easily find & mark both South and North. For if a man doe obserue the Sunne rising any day whensoever he will, and vpon the first hour of the same day (to wit at noon) stand so as he haue his left shoulder directly turned against the said Sunne rising, he may be assured, that he hath the South fall vpon his face, or before him, and the North behind his back. Now the line or streight way that runneth in this manner through a field North and South, is called in Latin * Cardo. When a man standeth thus, if he would see his owne shadow, he shall doe well to turn his bodie round about: for otherwise it will be behind him. Chaunging sides therefore, so as he haue the Sun rising or Leuant of that day iust against his right shoulder, and the setting vpon his left, he may know midday or South point as well as before, namely, when his body casts iust before him the shortest shadow, enclining to the one hand no more than to the other. Let there be then either a small furrow rased along iust through the mids of the shadow with a spittle spade, or the point of some hooke; or else a line drawne with a train of ashes, for the length of some twentie foot or thereabout (to make the thing more plaine.) Which done, cut the said line or furrow crosse ouerthwart the middle, to wit, at the tenth foot, if the whole be twentie, and then make a round small circle about it, which may serue in stead of a Nauil, and be so called. That part of the line then which goeth directly forward from the crowne of the head in the foresaid shadow, points out the North wind. Thou therefore that art to lop or prune trees, rake heed thou makest not thy cuts so, as they look into that coast: neither let thine hortiards or vineyards stand open to that wind, vnlesse it be in Affricke, Cyrene, and Ægypt. Againe, so long as the wind sits in that corner beware Ploughman [for now I speake to thee] thou breake vp or eare no ground, nor enter into any such worke in the field as thou art already forbidden by mee to doe. But marke what part of the line shal come from the foresaid circle straight before thy feet regarding the noon-tide or mid-day, assure thy selfe the same telleth thee which is the South wind, called by the Greeks Notus, as we haue declared already. Doth the wind rise and blow from that side? meddle not Husbandman during that time with thy vine. Carpenter, fell no trees then for timber I aduise thee. A wet wind this is and hot, within the climat of Italy. In Affricke verily dry ynough it is, and bringeth faire weather with it, but with al his faire looks, he kindleth fire otherwhiles, and burneth many things. Let hardly the Vine spread her branches, and run into this wind, in al places of Italie: but leaue not the cuts of tree or vine looking that way. He that sers out a plot of ground for Oliues, and planteth them, hath cause to be afraid of this wind, especially for four daies together, about the rising or apparition of the star Vergiliæ or Brood-hen. They also that graffe fowls in the stocke by cleft, or set bud in the scutcheon by way of inoculation, must take heed how they meddle in this wind.

Moreover, it will not be amisse to giue some caueat as touching the very houre of the noon-day, which giues vs knowledge of this wind and this quarter; namely, what is to be don at such a time, and what not? Thou woodman and forrager both, see thou neither cut nor lop trees, see thou gather no greene leaues and tendrils for thy fodder at noon-tide: Thou sheepeheard, thou heardman whatsoever, when thou perceiuest in Summer time by the shadow growing short, that noonestead is at hand, driue thy sheepe and cattell out of the Sunne, into some worm-stall and place of shade. More yet I haue to say to thee, If thou keepe sheepe or other beasts at their pasture in Summer time, lead them or driue them before thee al the morning into the west before mid-day: but after noon turne thy face Eastward with thy flock and thy heard. Otherwise, and at other seasons, as namely, all Winter and in the Spring, thou shouldest doe thy cattaille hurt, to conduct or lead them after this manner out of the warme Sunne into moist places, and where the dew falls. As charie also and heedfull must thou be to driue thy cattell Northward from the Sunne, and there to let them graze: for marke what I say, in so doing, they will not be able to hold open their eies; this wind will make them bleared & bloudshotten; nay, it will driue them into a gurry or flux of the belly, which will soone make an end of them. Howbeit, if thou wouldest

A wouldest haue the beasts conceiue and bring forth femals, force them when they be leaped and couered to stand with their heads in this wind, and thou shalt see the prooffe hereof.

CHAP. XXXIV.

¶ Of the lines and limits that diuide and bound fields.

WHe haue shewed in the next Chapter before, the manner how to draw a line or furrow North and South, and how in the middest thereof there should be a round compasse made manner of a Nauil, which in Latine is called Vmbilicus. Now if you would know likewise the other parts of the heauen, let there run such another line ouerthwart the Nauil or circle iust in the midst: and then shalt thou see, that this line will direct thee to the East & West points, Equinoctial. [Now the way that thus cutteth through any field East & West ought to be called Decumanus in Latine, or the Broad way.] Which done, draw other 2 lines through the centre of the foresaid circle, cutting one another aslant [like S. Andrewes crosse] or the letter X, so as that line which at one end points to the right hand of the North, reach to the left hand of the South at the other. Likewise that which regards the left side of the North at the one end, run directly to the right hand of the South with the other. All these lines must be of an euen length, of equall distance one from another, and passe through the same Circle, which we call the Nauil. Haying thus made the 4 crosse paths or waies in every field once for all, thou maist euer after know how the winds do stand. But if thou list to haue such a deuise to serue thy vse many times after, make a little instrument of wood, but the same as round as can be by the compasse, and therein draw or print 4 lines of an euen length and equal distance, passing as diameters al through the centre, to the circumference of the rundle: and this may serue thee in stead of a quadrant, where & whensoever thou needest. The maner how to make and vse this instrument I am content thus to shew, because I haue to deale with simple ignorant men of dull wit and shallow conceit, who may soon erre and doe amisse. Let vs see then first for the meridian line and the South point of the noon day, for to be perfect therein, because it is euer the same, and changeth not from one end of the yeare to another, whereas the Leuant varieth every day, for that the Sun neuer riseth the morrow morning, from the same point iust that he rose the day before: which I note, lest haply any man should take one certain line for to point out the Sun-rising or the East, and make his quadrant or compasse thereby. Now when thou hast in this wise exactly set out the principall regions or quarters of the heauen, obserue this, that the end or head of the line which is next to the North point Septentrio: on the East the same sheweth the very place where the Sun riseth at the summer Sunstead, to wit, the longest day of the yere; and the wind there seated is called in Latine Aquilo, i. the North-east winde, and in Greek Eurus. Thou knowing this perfectly, set thy trees and plant thy vines full vpon it. But so long as this wind bloweth, plow no lands, set no trees or plants that are to beare fruit, cast no grain nor seed into the ground. For why? this wind pierceth, pincheth, and killeth the heart of any tree root aboue ground, that thou shalt bring to replant. Take warning therefore beforehand, and be aduised: for experience hath taught, that one thing is good for strong and sturdy trees, and another for yong and tender plants. Neither am I ignorant or forgetfull, that the Greekes haue placed in this corner the winds which they name Cæcias: but Aristotle himselfe, a Philosopher of an infinite spirit and high conceit (the man that hath so done) sheweth a reason drawn from the conuexitie or bending cope of the heauen, whereby the Northeast wind or Aquilo bloweth full opposit to the Southwest Africus. Howbeit the husbandman is not afraid of this Northeast wind Aquilo all the yeare long, in those particularities whereof hee is forewarned. For in the midst of summer this wind doth moderat and temper the ardent heat of the stars raining and raging in that time: then changeth hee his name, and [during the Dog-daies] is called Eresias. When thou therefore feelest him blow cold, take heed and be not too bold. But learn this withall, that howsoever this wind may do harm, in some respect, for which thou art forewarned; yet the wind Septentrio that bloweth plumbe North is far more dangerous and mischieuous than he. Against the Northeast wind aforesaid, let both hortiards, tree-rows, groues and vineyards be ranged; in all Natolia, Greece, Spain, Maritime coasts of Italy, Campaine, and Apulia. If thou desirest to breed males keepe thy cattell with their heads into this wind, and in that sort let the females be couered.

When

When thou hast found out in this maner the North-east wind Aquilo, be sure that the wind which bloweth ful against it from the point where the Sun setteth in midwinter when daies be shortest, is the South-west, called in Latin, Africus; and in Greek, Lybs. Obserue this wind wel, for if a beast after she be couered, turn about directly into this wind, she will for certaine conceiue a female. And thus much of the Line in the Quadrant next to the North point on the East side.

The third line from the North point (which we drew first through the latitude of the shadow before said, and which we called Decumana) pointeth out the Equinoctial Sun-rising in March and September, directeth thee also to the East wind vnder it, called in Latine Subsolanus, and in Greek Apeliotes. Where the climat is healthful and temperat, let vineyards be planted and arranged into this wind: let ferm-houses also in the country be so built, as the dores and windowes open into it. This wind loueth well to be dropping, and to distil gentle shoures of rain; howbeit drier it is than the West wind Favonius, which bloweth ouer-against him from the Equinoctial Sun-setting full West, called in * Zephyrus. Vpon this Western wind Oliue rowes should stand, according to *Cato's* mind. This wind is he that beginneth the Spring: this winde openeth the veins and pores of the earth, and with his milde coldnesse is healthfull and wholesome for all plants, for man also and beast. This wind gouerneth this whole season, and prescribeth the time for pruning Vines, for farcling and dressing corne, for planting trees, for graffing fruit, for trimming and ordering Oliues; and to say all in one word, so kind he doth breath, that he cherisheth and fostereth the earth and all things thereupon.

The fourth line in your quadrant or compasse (reckoning from the North point, which also reacheth next to the South point on the East side) noteth the Sun-rising in mid-winter when the day is shortest; and withall the Southeast wind called in Latine Vulturus, and in Greeke Eurus, which as it is a drier wind than the two last named, so is it also warmer. In regard whereof it is good to set Bee-hiues and plant vines tending into this course, I meane in other parts of Italy remote from the sea, and also in Gaule. Then shall you haue to blow full opposit vnto it the wind Corus, directly from the sun-setting in mid-summer when the day is longest: by-west from the North; and this North-west wind the Greeks call Argestes: one of the coldest he is, like as all they be wich blow from any point of the North. No maruell therefore if he be as much dread and feared as the North winde Septentrio, for commonly he bringeth with him haile stormes good store.

As touching the Southeast wind Vulturus, if the coast be cleare where and when he beginneth to rise, it will not belong ere he lie, and commonly hee is down before night, but the East wind indeed continueth most part of the night. But be the wind what he will be, if he blow sensibly hot, you shall haue him hold many daies together. And to conclude, would you know when to haue a North-west wind? marke when the earth drieth suddenly at one instant, it will not be long but he will be with you: contrariwise, when you see the ground moist and wet with a kind secret dew vnseen and vnknown, reckon vpon it that shortly you shall haue a South wind to blow. And thus much for winds.

CHAP. XXXV.

¶ Signes to prognosticate what weather is toward.

HAuing thus set down sufficiently a discourse of the winds, because I would not re-iterate one thing often, what remaineth now, but in good order to passe & proceed to the prognostication and fore-knowledge of the weather? and the rather, for that I see that *Virgil* took great pleasure herein, and stood much vpon this point: for thus he relateth vnto the rude and ignorant men of the country, That oftentimes in the very mids of haruest he hath scene whirle-puffs and contrarie winds encounter and charge one another as it were in battell, doing much harme to corne. Moreouer it is reported, that *Democritus* at what time as his brother *Damastes* was entred well into haruest worke, taking the opportunity (as he thought) of a most hot season, besought him earnestly to let the rest of his corne stand still a while longer, and to make hast to get that into the Barne vnder rouse, which was cut and reaped downe; and this he did without any reason by him made, why and wherefore. And what ensued hereupon? Surely within few houres after, there poured downe a mightie showre of raine, and proued *Democritus*

A to be a wife man and a true prophet. Moreouer, it is a rule commonly giuen and obserued, That neither Reeds would be set & planted but toward rain, nor corn sowed but against a good showre. And therefore since this skill is of such importance, I am content briefly to touch those signes that foreshew what weather will be, and make choise of such which by search and experience are knowne principall and make most for this purpose.

And first begin I will at the Sun, the best prognosticator of all others: When he rises cleare and not fiery red, it is a signe that the day will be faire, but if he shew pale and wan, it presages a cold winter-like haile-storme that very day: but in case he went downe ouer-night cleare and bright, and so rose the next morning, so much surer may you be of faire weather. If the Sunne in rising seeme hollow, he foretellet rain: and when before his rising, the clouds be red, the winds will be aloft that day: but in case there be some blacke clouds intermingled among, you shall haue rainewithall. If the raies and beames of the Sun be red, both when he riseth and when hee setteth, there wil fall good store of raine. Are the clouds red about the Sun as he goes downe? you shall haue a fair day the morrow after. If when the Sun doth rise you see flying clouds dispersed, some into the South, and others Northward (say all be cleer and faire otherwise about him) make reckoning that day of wind and raine both. Marke at his rising or going downe, if his beames be short and as it were drawne in, be sure of a good showre. If at the Suns setting it raine, or that his raies either looke darke and blew, or gather a banke of clouds, surely these be great tokens of tempestuous weather & storms the morow after: when in his rising the beams shine not bright and cleer, although they be not ouer-cast with a cloud, yet they portend rain.

C If before he rise, the clouds gather round together like globes, they threaten sharpe, cold, and winter weather: but in case he driue them before him out of the East so as they retire into the West, we haue a promise thereby of a faire time. If there appeare about the bodie of the Sun, a circle of clouds compassing it round, the nearer they come about him and the lesse light that they leaue him, the more troubled and tempestuous weather wil follow: but in case he be enuironed with a double circle, so much more outragious and terrible wil the tempest be. If peraduenture this happen at his rising, so as the said clouds be red againe which compass the Sun, look for a mighty tempest one time or other of that day. If haply these clouds enclose him not round, but confront and seeme as if they charged vpon him, look from whence they come, from that quarter they portend great wind: and if they encounter him from the South, there will be raine good store and wind both. If as the Sun riseth he be compassed with a circle marke on what side the same breaketh and openeth first, and from thence look for wind without faile: but if the said circle passe and vanish away all at once equally, as well of one part as another, you shall haue faire weather vpon it. If at his rising you see him to cast his beams afar off among the clouds, and the mids between be void therof, it signifieth raine. If he spread his beames before he be vp and appear in our Horizon, look for wind and water both. If about him toward his going down there be seene a white circle, there will be some little tempest and troublesome weather that night ensuing: but in stead thereof if he be ouer-cast with a thicke mist, the tempest will be the greater and more violent. If the Sunne couchant appeare fierie and ardent, there is like to be wind. Finally, if the circle aforesaid be blacke, marke on which side the same breaketh, from thence shall you haue blustering winds. And so an end of the Sunne and his prognostications.

Now by right, the Moone challengeth the next place for her presages of weather to come. First and foremost, the Egyptians obserue most her prime: or the fourth day after the change: for if she appeare then pure, faire, and shining bright, they are verily perswaded that it will be faire weather: if red, they make no other reckoning but of winds: if dim and blackish, they look for no better than a foule and rainie moneth. Mark the tips of her hornes when she is five daies old, if they be blunt, they foreshew raine; if pricking vp-right and sharp pointed withall, they alwaies tell of winds toward: but vpon the fourth day especially, this rule faileth not, for that day telleth truest. Now if that vpper horne of hers only which bendeth Northward, appeare sharpe pointed and stiffe withall, it presageth wind from that coast: if the nether horne alone seeme so, the wind will come from the South: if both stand streight and pricking at the point, the night following will be windie. If the fourth day after her change, she haue a red circle or Halo about her, the same giueth warning of wind and raine. As for *Varro* he (treating of the presages gathered from the Moone) writeth thus: If (quoth he) the new moon when she is just foure daies old,

put her horns direct and straight forth, she presages thereby some great tempest at sea presently to follow, vnlesse it be so that she haue a guirland or circle about her, and the same cleere and pure, for then there is good hope that there will be no foule nor rough weather before the full. If at the full, one halfe of her seeme pure and neat, a signe it is of a faire season; if it be red, the wind will be busie; if enclined to blacke, what else but raine, raine. Doe you see at any time a darke mist or cloud round about the body of the moone? it betokeneth winds from that part where it first breaketh: and in case there be two such cloudie and mistie circles enuironing her, the tempest will be the greater: but how if there be three of them for failing, and those either black, or interrupted, distracted and not vnited? surely then there will be more stormis & more. The new moone whiles she is croissant, if she rise with the vpper tip or horne blackish, telleth beforehand that there will be store of raine after the full, and when she is in the wane: but if the nether tip be so affected, the rain will fall before she be at the full. But what if that blacknesse appeare in the middle of her body betwene; then (saith *Varro*) it will poure of rain in the very full. A full moone hauing about her a round circle, sheweth that there will be wind from that part, where the said circle is most splendant. If her hornes appeare when she riseth, more grosse and thicke than ordinariē, look soon after for a terrible tempest and a stormie weather. If she shew not in our Horizon before the prime or fourth day after the change, and the West wind blow withall, then that moone throughout threatneth cold and winter weather: and if the day after the full she seeme extraordinarily enflamed, she menaceth vnto vs sharp showres and bitter tempests. Finally, in every moon there be eight points and so many daies (according as the lighteth vpon the angles of the Sunne) which most men obserue onely, and take their presages of future weather by, to wit, the third, seuenth, eleuenth, fifteenth, nineteenth, one and twentieth, seuen and twentieth, and the very day of her conjunction or change.

In the third place, a man may know the disposition of the seasons by the fixed starres, and therefore it behooueth to obserue and marke them. They seeme otherwhiles in the sky to flit and run too and fro, and then we shal not be long without great winds, rising from that quarter where such appeared and gaue token.

The starrie skie, if it shew cleare and bright al ouer, and in every part alike, during that particular season [namely, between the occultation of the Harp-star, and the Equinoctiall point] which I proposed and set downe heretofore, it is a fore-token of a faire and drie Autumne, but yet cold.

If the Spring add Summer both, passed not cleare without some raine and wet weather, it will be an occasion that the Autumne following shall be drie, and lesse disposed to wind, howbeit, thick, muddy, and enclined to mists: A faire and drie Autumne, bringeth in alwaies a winde winter.

When all on a sudden the stars lose their brightnesse and looke dim, and that neither vpon a cloud nor a mist in the aire, it signifieth either raine or grieuous tempests.

If the starres make semblance as if they flew vp and down many together, and in their flying seem whitish, they denounce winds from that coast where they thus do shoot. Now if it seeme to the eye, as if they ran and kept one certaine place, those winds will hold and sit long in one corner: but in case they do so in many quarters of the heauen, they betoken variable and inconsistent winds, going and coming, and neuer at rest. [When you see a circle about any of the other fixe planets or wandring stars, you shall haue pouring showres soone after.] Within the signe Cancer, there be two prettie stars which the Mathematicians call *Acelli*, [i. little *Asses*] betwene which there seemeth to be a small cloud taking vp some little roome, and this they name in Latine *Prasopia*, [i. a Crib, Cratch, Bowzey, or Manger:] now if it chaunce that this Racke or Crib appeare not, and yet the aire bee faire and cleare otherwise, a signe it is of cold, foule, and winter weather. Also if one of these two little stars, to wit, that which standeth Northerly, be hidden with a mist, then shall you haue the South wind to rage; but in case the other which is more Southerly, be out of sight, then the Northeast wind will play his part.

As touching the Rainbow, if it appear double as if there were two of them at once, it telleth of raine toward. A Rainbow presently after raine, is a signe of faire weather: but this is not so certaine, neither will it hold long. Also, when a man seeth new circles still about any planets, there will be much raine soone after.

In Summer time, if there chaunce to be more thunder than lightning, it threatneth winds from

from that coast where it thundreth: contrariwise, if it lighten much & thunder little, looke for rain plentie: when you see it lighten, and the skie otherwise cleare & faire, it is a token that rain and thunder will follow thereupon, yea and rigorous cold weather besides: but the cruellest and most bitter impressiions of the aire, ensue vpon such lightnings as come from all the foure quarters of heauen at once: if it lighten from the Northwest only it betokens rain the day following; if from North, it is a signe of wind from thence: if from the South, Northwest, or full West, it happen to lighten in the night & the same be faire, it sheweth wind and rain from out of those coasts: more thunders foretew winds, but if they be heard at noon, they presage rain.

As touching clouds, if you see the rack ride apace in the aire, the weather being faire & drie, looke for wind from that quarter whence those clouds doe come, and if they seeme to gather thick in that place, disappeared they will be and scattered when the Sun approacheth: but more particularly, if this happen from the Northeast, they portend rain; if from the South, storm and tempest: if at the Sun setting the rack seeme to ride from both sides of him into the open aire, they shew of tempests toward: if the clouds be very blacke, flying out of the East, they threaten rain against night: but if they come out of the West, it will surely raine the morrow after, if the clouds be disparted many together out of the East, and flie like fleeces or flocks of wooll, they shew rain for 3 daies after: when clouds flie low, and seeme to settle vpon the tops of the hills, looke shortly for cold weather, contrariwise, if you perceiue those tops of mountaines cleare without moist or cloud, the weather will soone take vp and turne to be faire: when the clouds seeme to be heauily charged and full, and yet looke white withall (which * constitution of the aire is called commonly the white weather) there is an haile-storme at hand: moreover, be the skie neuer so cleare, the least cloud appearing therein, is enough to engender and foretew wind and storme: mists if they come downe and fall from the mountaines, or otherwise descend from heauen and settle vpon the vallies, promise a faire and drie season.

Leauing the stars and clouds aboue, let vs come to our fire that we make and keepe in our houses here beneath, for they are to be raunged in the next place of our prognostication. If the fire then burne in the chimney pale, and keep there with a huzzing noise, we find by experience it foretewes tempest and stormie weather: as also wee may be sure of rain, in case we see a fungious substance or foot gathered about lampes and candle snuffs: if you see the flame either of fire or candle mount winding and wauing as it were, long you shall not be without wind. The like is to be said of fire and candle light, if either they seem to go out of themselves, or to kinde and take fire with much adoe. Also, when we discern in the fire a number of sparkles gathered together and hanging one to another: or if when the pot is taken off from the fire, the coles sticke to the bottome and sides: or when the fire being raked in embres, keepeth a spitting and sparkling from it: also, if the ashes lying vpon the hearth grow together: and last of all, when the liue cole shineth brighter or scorseth more than ordinariē, all these be signes of rain.

Goe we a little lower to the water, for that element also giues signes of the weather: and first of all, if you see the sea within the haven, after the floud is gone, in a low and ebb water to bee calme, and yet heare it keep a rumbling noise within, it foretewes wind: if it doe thus by times and fits one after another, resting still and quiet between whiles, it presages cold weather & rain. Item, if in calme and faire weather the sea strond or water banks refund and make a noise, it is a token of a bitter tempest: so it fares also with the very sea it selfe; for if it be calme, & yet make a roaring, or if the some thereof be seen to scatter to & fro, or the very water to boile & bubble, you may be bold to foretell of tempests: the Puffins also of the sea, [i. fishes named in Latin *Pulmones*] if they appear swimming aboue water, foresignifie cold weather for many daies together: oftentimes the sea being otherwise calme, swells, & by heouing higher than ordinariē, shewes she had wind good store enclosed within her, which soon after will breake out into a tempest.

Let vs come aland againe, and marke the disposition of woods and hills: you shall heare the mountains and Forrests both, keep a founding and rumbling noise, and then they foretell some change of weather, nay you shall mark the leaues of trees to moue, flicker, and play themselves, & yet no wind at all stirring, but be sure then you shall not be long without. The like prediction is to be gathered by the light downe of either poplars or thistles flying too and fro in the aire; also of plumes and feathers floting vpon the water. Goe down lower to the vales & plains: if a man chance to heare a bustling there, he may make account that a tempest will follow. As for the rumbling in the aire, it is an vndoubted signe and token thereof.

The Table to the first Tome

Alica Exceptitia, *Secundaria*, *Crebraria*. ib. k. where and how it is made. ibid. g.
Almonds described. 446. h.
Almond trees having no greene leaues. 473. f. when to be planted. 522. k. how sweet *Almonds* are made bitter. 545. c.

A M

Amethyst, what colour. 259. f.
Amphisbena, a serpent. 268. g.
Amolebium, what it is. 85. c.
Ambre, where ingendred. 86. l.
Ambracia, the haven, left dry land. 39. e.
Amia, a kinde of fish. 243. d.
Ammoniacum, a gum, why so called. 373. c. the kinds thereof. 375. d. the best and the price. ibid. how it is sophisticated. ibid.
Anomis. 365. d.
Anomum, 395. c. the price. ibid. d. sophisticated. ibid.
Anomum, why it cutteth into aromatical ointments. 382. l.
Anomum, why it will not live in Arabia. 478. l.
Anuraea, what it is. 430. l.
Anylm, how it is made. 562. g. why so called. ibid. sundry sorts thereof. ibid.

A N

Anateria. See *Morphos*.
Andrachne an herbe. 399. e.
Androcides his sage counsell to *Alexand. the Great*. 413. b.
Androgini, who they be. 154. m.
Andromeda, where ladie *Andromeda* was exposed to a monster. 110. l.
Angerona, a goddesse. 59. c.
Anthus, a bird neighing like an horse. 293. a.
Antigenes, a famous minstrell. 484. g.
Antichthones. 129. b.
Antiball his fullhood. 195. c.
Ante, transformed into volues. 207. c.
Anthia fishes how they be caught. 268. m. 269. c.
C. Antonius nicknamed *Hybrida*. 231. c.
Ant, their common weale. 338. k. their forecast. ibid. how they live. ibid. their passage wearerth pibble stones. 328. l. they onely burie their dead. 328. a. they lie not in *Sicilia*. ibid. they cast up gold in *India*. 329. a. where, as big as volues. ibid. they deuoure men. 329. b. lone gold well. ibid. they will not touch some kind of liuer. 342. g. burfull to trees. 547. d. gather about fishes. ibid.
Anthropophagi, what they are. 154. b.
Antipodes, whether there be any such. 31. b.

A P

Apates, who they be. 166. b.
Apes must like to mankinde. 231. c. differ from monkeys. ib. crauise to beguile themselves. ibid. play at chess or tables. ibid. see apes fond other their little ones. 231. f.
Apes store up victuals within their cheekes. 207. c.
Apharema what it is. 568. g.
Apicinus a famous glutton. 296. g.
Apis, the *Egyptian* beaue. 226. g. honoured among them. ibid. serueth as an oracle. 399. d.
Aplurce a tree. 263. a.
Apluse, the worst sponges. 21. c.
Apogai, what winds. 243. b.
Apoleiti, what they be. 188. k.
Apothecaries craft who first practised. 265. d.
Apua, a kinde of fish.

Apparition of fixed starres at set times. 587. d.
Applada what it is. 556. f.
Apples beare names of countries. 438. k. *Camerina*, *Graculla*. ibid. *Gemella*, why so called. ib. *Serica*, why so called. ibid. *Melupia*, why so called. ibid.
bastie Apples *Musla*. 438. l. *Melimela*, *Orbiculata*, *Epitrotica*, *Orthomastica*, *Spadonia*, *Melofolia*, *Pannucia*, *Pulmona*. ibid.
all Apples red on the Sun side. 438. m.
Apples *Dacian*. 439. a. winter apples. ibid. f.
Apples de guard. 440. l. how to be kept. ib. g. b.
what Apples will last, and what will not. ibid.
Apple trees bearing fruit twice a yeare. 474. m.
quince Apples. 438. i. *Apples* *Appian*, *Mutian*, *Sellian*, *Manlian*, *Clandian*, *Scantian*, *Septian*, *Quirian*, *Petisan*. ibid. *Apples* what fruit properly. 437. f.
Apples have eternized the name of their first inuents & graffers. 438. i. *Apple trees* dearely reued at *Rome*. 499. d. tendreft of all other trees. 540. k. diseased. ib. how they be made fruitfull. 545. d. apples how kept from rotting. 574. d. apple trees when to be graffed. 518. l.
Apprymon, a kind of *Pomegranat*. 398. b.

A Q

Aquiceti, pine nuts confected. 436. g.
Aquifolia. 458. l.
Aquitania described. 87. d.

A R

Arabia, why called *Happy*. 365. f. 371. d.
Araneus, an imperfection in wines and olives. 540. a.
Aratrar, what point in husbandry. 580. b.
Araxi, or *Oraxi*, springs medicinable. 568. i.
Arbut tree described, and the fruit. 447. d.
Archers & *arrows* haue conquered halfe the world. 482. k.
Candots excellent archers. ibid.
Arcturus the star cause of tempests. 19. e.
Arethusa a strange lake. 137. b.
Argatilis a bird. 288. l.
Argo a ship, of what wood it was made. 399. b.
Architecture, who excelled therein. 175. b.
Arimasians, with one eye in their fore-head. 154. b.
Arinca, a graine all one with *Olyra*. 568. k. it makes sweet bread. ib. hard to be clenfed. ib. what kind of corn. 559. c.
Aristeus mingled honey with wine. 412. b.
Arion mounted upon a dolphins backe. 239. f.
Aristomenes the *Messenian* had a hairy hart. 340. k. slew three hundred *Lacedemonians* alone. ibid.
Aristotle employed by *K. Alexander* the Great about the lining creatures. 200. m.
Armes of men not all of a iust measure. 549. d.
Arnpheae, people, their life and strange manners. 121. a.
Armeniacae. See *Abriacols*.
Armor heard rustling in beaues. 28. g.
Artabite, men wandring like foure-footed beausts. 147. e.
Artenon, a man like to *Antiochus* *K. of Syria*. 161. d.
Arteries from the heart minister vitall blood to all parts. 340. b. how to obserued in their pulse or beating. 345. b.
Articulatio, a disease proper to vines. 540. b.
Artisans excellent. 175. b.
Artolaganus. 566. l.
Artopta, what it is. 567. b.
Artoptius panis. 566. m.
Aruncus, what it is. 229. c.
Asarum

of Plinies Naturall History

A S

Asarum or *Asara-bacca* described. 365. b.
Asera, places where no shadowes be yeelded. 36. b.
Asita, *Arabians*, why so called. 144. m.
Asclepiades recovered one that was carried forth as dead. 175. a.
Ashe tree, where it is alwaies greene. 48. g. as tree described. 465. e. commended by *Homer*. ibid. the wood of the ash in *Ida* like to *Citron*. ibid. ash of two kinds. 465. f. the leanes burfull to what beausts. 466. g. the inice of the leanes medicinable. ib. the shadow skareth serpents. ibid. the leanes drine away serpents. 466. h.
Asia a kinde of *Rie*. 572. l.
Asia, the description thereof. 96. a. great part thereof inhabitable by reason of cold. 120. m.
Asia. See *Orys*.
Aspalathus, a shrub. 376. g. the price. ibid. h.
Asphaltites, lake of *Sodome*. 101. c. no living creature therein. ibid.
Aspe trees turne to be *Poplar*. 543. c.
Aspis the serpent hath her affection, and is a iust reuenger. 309. a. discharge her poison by the teeth. 337. c. the nature of *Aspis*. 208. b.
Aspabinus, the god of *Cinamon* plants. 372. l.
Aspes of fuel burnes, much set by beyond the *Pa*. 507. a. serue to enrich ground. ibid. of the same nature that salt. 546. l.
Asbes of lime-kils encrease oliue trees. 507. e.
Asbes cannot away with cold. 223. b. when they shed teeth. 338. h. their iclonesse and leachery. 212. l. of great price. 223. a. their manner and time of generation. ib. b. the gaine that they bring by breeding. ibid. c. their foies good meat. ibid. e. their other properties. ibid. c.
Ases of *India* with one horne. 351. b.
Ases wild. 20. g.
Assyrian tree. See *Citron* tree.
Asomes, people without a mouth. 156. i.
Astronomers their commendation. 8. m. 9. a. who most excellent. 174. l. their three sects. 586. b.
Astronomie necessarie for agriculture. ibid. a.
Astrologie who first deuised. 189. d.
Astrologers opinion touching the length of mans life. 181. f.
Asturcones, what horses. 222. m.
Asturius Celer, a prodigall spender. 246. k.

A T

Atabalus, an vnluckie wind in *Apulia*.
Aceramum. 575. b.
Atlas hill, 92. g. the strange trees thereon growing. 92. b.
Atlantes people, their strange manners. 96. i. they dreame not in sleep. ibid.
Atlanticke sea sometime the continent. 40. l.
Atomus, what it is. 367. e.

A V

Augurio and *Auspices* by birds, who first inuented. 189. c. honoured in *Rome*. 211. f.
Augustus *Caesar*, whether he was happy. 179. c. his fortunes compared. ibid. he desired *Procleus* to kill him. 179. e. fasted foure daies and foure nights. ibid. hee saw his lineall descent vnto the fourth degree. 162. l. his conduct discovered in any seas. 32. k. superstitious in preferring that his left foot shoo was put on before the right. 41.
Aegypt, people worshipping onely the diuells beneath. 96. i.

Autola burnt quicke. 184. b. he remitted in the funerals fire. ibid.
Auleticus Calamus, a kind of reed. 483. b. c.
Axis, an *Indian* beaust. 206. k.

B A

Babylon territory exceeding fruitfull. 576. i.
Babylon the citie described. 136. b.
Babylonica vestes, what they are. 228. i.
Baccharis. 364. l.
Bacchia, a kind of coalfish. 245. e.
Bacchus, when borne, how. 128. l.
Bacchus first wore a coronet or garland. 456. m.
Backbiters haue venomous tongues. 548. m.
Bactrian, a plentiful country for corne. 581. a.
Bactrian corne exceeding big. 561. i.
Bagous what he is. 387. b.
Bailiffes of husbandry. 555. a.
Bakers when they began in *Rome*. 557. b.
Balaustia. See *Pomegranate* flowers.
Bald-raueni. See *Pluueons*.
Balena what fish. 235. f. 236. l.
Balena and *Prifilis*, greatest fishes in *Indian* ocean. 235. f.
Balls of the cheeks forbidden by law to be scratched. 336. i. the fear of basfulness and modesty. ibid.
Balme trees of three sorts. 376. l.
Balme tree groweth no where but in *Lurie*. 478. k.
Balme trees brought to *Rome*. 376. i. how they are planted and ordered. ibid. k. their description. ibid.
Balme trees sowed by the *Romans* at the destruction of *Ierusalem*. 376. k.
Balme fruit or graine. 377. e.
Balme graine how sophisticated. ibid.
Balme barke. ibid.
Balme liquor most precious. 376. i. *Balme* liquor how sophisticated, and how discerned. 377. e. *Balme* liquor how it is drawne. 376. m. *Balme* liquor which is best. 377. c.
Balsamodes *Cassia*. 373. e.
Bands or *bindings* in husbandry, of what trees and plants they are to be made. 445. b.
Barbata, a kinde of hawk or eagle. 272. k.
Barbers first entertained in *Rome*. 190. m.
Barble fishes. 246. b. their description and nature. ibid. why called in *Latine*, *Mulli*. 246. i.
Barke of trees is their hide. 486. b.
the barke moisture of trees is their blond. 486. g.
Barke of trees how to be used. 541. e.
Barking of trees. 487. d.
Barks of sundry trees, how employed. 461. d.
Barks of trees different. 477. a.
Barley a tender corne. 562. b. how to be cut downe, and at what time. ibid.
Barley how it is eared and iointed. 558. k.
Barley where it groweth twice a yeare. 503. e.
Barley doth degenerate into oats. 574. g.
Barley a most ancient meat. 561. c. condemned. ibid. e.
Barley used in *Physicke*, and to feed cattell. 562. b.
Barley different in care and otherwise. 562. i.
Barnes, how and where to be built. 603. b.
Barraine

The Table to the first Tome

Barraine beasts fountes. 344.k
 Baivaineffe of earth, how it is found. 504.i
 the Bafisike. 196.l. his properties. ibid. his venome. 207.a
 killed by the weazill. ibid.
 Battaille first fought. 189. a. battaille at Sibaris. 397.d. in
 two battailles in one day, both on sea and land. Nume-
 nus defeated the Perfians. 140.b
 a Bat or winged mouse only amongst the foules. bath teeth.
 337.d. Bats bring forth young alive. 301.f. the only bird
 that giueh milke. 302.g
 Bay trees: see Lawrell. Bay leaues purge the gorge of birds.
 211.c.
 B D
 Bdelium. 362.m. sophisticated. 363.a. See Brochos. the
 trial. 363.b. the price. ibid.
 B E
 Beans principall of all pulse. 568.l. beane meale. ibid. beane
 stalkes in Egypt full of prickles. 569.d. beanes how to be
 prepared before they are set or sowne. 575.d. beanes and
 weiches sowne under furrow. 580. g. beanes yeelding
 great encrease. 565.b. beanes forbidden by Pythagoras
 to be eaten. 569. a. the arch Flamin abstateth from
 beanes. wherefore. 569.b. beanes used in porisales. 569.b
 when they are to be set or sowne. ibid. b. kidnie beanes.
 570.l. beanes sowing doth enrich a ground. 569.c. beanes
 growing of their owne accord. ibid.d
 Beares onely haue no marrow at all. 344. m. how they en-
 gender. 302.l. beares haue the tenderest skulls. 332.l.
 beares cure themselves with pissmires. 211.c. beares, their
 manner of generation. 215. f. their young imperfect.
 216.g. they grow exceeding fat. ibid. b. their fat medi-
 cinable. ibid. they fecke to the herbe Wake-robin. ibid. i
 they are subiect to dimnesse of sight. ibid. i. weakie in the
 head. ibid. k. their braine venomous. ibid. hunted in the
 shew-place at Rome. ibid. l
 Beasts accounted for gods. 3. c. beasts of India very bigge.
 155.b. beasts engendred in the uninhabitable places of the
 earth, and the reason. 111. b. beasts that drinke lastly,
 bleed most at their death. 346.b. beasts bring forth young
 according as they are whole hoofed or clouen. 303.a.
 beasts, which bring their young perfect, which imper-
 fect. ibid. beasts will not touch where beares haue brea-
 fed. 356.a. beasts foure-footed commonly rest on their
 right side. 350.k. beasts by whom first killed. 190.k.
 Beech wood highly esteemed. 486.m. a beech grove finely
 kept and consecrate to Diana. 496.g
 Bees: their order and nature. 312.i. when they goe abroad.
 ibid. l. their first worke. ibid. their care of their kinde.
 ibid. their regard of their worke. 313.a. their muni-
 tion. ibid. b. their greatest swarms among olina trees.
 ibid. d. they hurt no fruit. ibid. they wander not from
 their hime aboue sixtie paces. ibid. they send out spies.
 ibid. e. how they watch. ibid. their foresight. 314.g.
 how they lade themselves. ibid. b. their generall offices.
 ibid. bees of two sorts in one hime. ibid. k. they goe with
 the wind. ibid. l. their pollicie against the wind. ibid.
 they punish slothfulness. ibid. their cleane linnesse. ibid.
 their silence towards night. their hatred to the drones.
 315.b. their buildings for their capitaines. ibid. c. how
 they are drinen away. 316. k. bees, when they are
 nourished with sleepe onely. 317. e. they abhor a theefe.
 ibid. their fidelitie to their king. 319. c. bees settled on

Plato his mouth. ibid. d. bees in the campe of General
 Dryfus. ibid. why sometimes they fight. 320.g. bees
 after they haue stung, be no better than drones. ibid. k.
 drone bees are bigger. 315. a. they take up least lod-
 gings. ibid. Of bees worke, therse foundations. 313.b.
 whom they will sting. 320. k. bees are often sicke.
 320. m. bees sorrow for their dead king. 321.a. bees
 performe a solemnitie of exercise. ibid. e. they line not
 aboue seuen yeares. ibid. how they are repaired. 322.g.
 bees will not touch a dead carcasse. ibid. i. bees onely
 make their owne meat. 328.i
 Beetles haue no sting. 326.k. they are remedies for children.
 ibid. they are delighted in roses. 355.e
 Bellerophon his letters in tables. 394.l
 of the Belly. 342.k
 Bellies that be fatter, cause grossenesse of capacitie. ibid. l
 Belus, inuentor of Astronomye. 136.h
 Ben, or Behen. 374.f. a. onely for sweet ointments. ib.
 Benacus a lake in Italy. 248.g
 Beotia riuer. 51.f
 Bergnice haire, a starre. 34.l
 Berries different. 447.f
 Besbicus Island sometimes ioined to Bithinia. 40.i
 B I
 Bills giuen to birds in stead of mouths, and their use.
 336.l.m.
 Biao, a kinde of wine medicinable. 416.i
 Bieuers guild themselves. 212.m. where they breed, their
 nature. 213.a
 Birch tree described, and how it is employed. 408.i
 Bird-gardens. 281.b
 Birdlime how it was made. 497.a
 Birds sing when they ordinarily doe breed. 287.c. birds
 very few haue gawles in the liners. 341.f. birds hatched
 with their talles forward. 272.e. birds hauing neither
 veines nor arteries. 345. c. birds with hooked talons
 prey all. 278.k. birds how they translate their egges
 from place to place hauing no hooked talons. 289. a.
 birds differ one from another in flight and gate. 291.f.
 birds how they drinke. 295.c. birds of diuers feedings.
 ibid. e. birds singing, alter their notes. 285.e. new birds.
 296.k. birds there be none without feet. 351.d. birds
 language how to be understood. 296. l. birds of prey
 least fruitfull. 297.f. birds that lay most. ibid. birds
 how they engender. 298. g. birds how they differ
 in laying and couing. ibid. i. 300. k. birds small be
 fruitfull. 301.d. blackbirds counterfeiting mans speech.
 293.d. blackbirds are gone for a time. 284.g. blacke-
 birds change both how and time. ibid.
 Births strange for number, for defects and superfluitie.
 164.b.i.
 Births of children vncertaine. 158.k
 Birth at seuen months time: also at the eleuenth. ib. A child
 legitimat borne within thirteene months, after the sup-
 posed father deceased. 159.a
 Bisontus or Banfes of Germanie. 199.f
 Bissextile yeare. 585.b
 Bitches differ in their litters. 303.c. bitches engender with
 Tigres. 219. c. with wolues. ib. how long they goe with
 young. 220.b. their whelpes blind. ibid. i.
 Bithye, Women witches, who haue a double sight in their
 etc. 155.a
 Biting

of Plinies Naturall History.

Biting if a mad dog cured by Eglantine. 220.k
 Bitumen comparable at the water of Styx. 47.d
 Bitumen a strange slime. 163.e
 B L
 Bladder where it is placed. 343.f. bladder nuttree. 467.c.
 bladder onely there found, where is lungs and blood.
 343.f. of the bladder in man and beast. 343.f. bladder
 being wounded cannot be cured. 344.g
 Blasted corne. 574.i
 Blasts how they be occasioned. 574.l.m. blasts suddaine
 their names and nature. 24.k
 Blatte flies are nourished in darknesse. 326.m
 Blazing starres. See comets. Volusius Saturnius how bee
 used to bleed. 346.b
 Blossoming time of trees how long it lasteth. 473.b
 Bloud apper. 438.l. bloud rained. See Raine. bloud fat and
 grosse breederth anger and choller. 345.f. of bloud a dis-
 course. ibid. bloud of males blacker than of females. ib.
 bloud containeth a great portion and treasure of life.
 346.g. it is without sence and feeling. ibid. bloud that is
 thinnest, causeth strength in creatures. ibid. bloud that
 is thinnest maketh men wise. ibid. where it is but little
 maketh men fearefull. ib. bloud of bulles soonest congea-
 leth. ib. it is poison to be drunke. ibid. bloud of Asses most
 fatie and grosse. ib. bloud of man thinnest and best. ibid.
 bloud is but little in those that be fast. ib. bloud cast up
 by many at the mouth. ib. bloud quietest encreaseh
 of all parts of the body. ib. bloud changeth with anger
 and furie. ibid.
 in Blooming time raine hurtfull to corne. 574.k
 B O
 Boa, mightie great serpents. 199.e. why so called. ib.
 Bodies of men and women different beside the distinct parts
 of sex. 165.e
 Boats of one entire piece of wood. 490.g
 Bactica, so called of Batis. 51.e
 Banfes of India. 224. k. bred by king Pyrrhus. ibid. l.
 their manner of engendering and breeding. ibid. of fee-
 ding. 224.a. when they are to be drawne and yoked.
 ibid. b. sufficient for sacrifice. ibid. e. knowne to speake.
 ibid.
 Bolides, flaming launces in the skie. 17.b
 Bombyces, reeds or canes. 484.g
 Bombycina, garments of silke. 322.m
 Bombyly, the greater kinde of Bombyces. 322.l
 Bombyx, a flie breeding in Assyria. ibid. their hard nests.
 ibid. how they engender. ibid.
 of Bones. 345.a
 Bonnsu, what manner of beast, and his properties. 200.b
 Bondwoman brought forth a serpent. 157.f
 Bones of Asses legs sound shrill. 345.a. bones in some men
 without marrow. 165.f. bones sometime found in the
 hearts of beasts. 340.i
 Bore, his owne Physitian. 210.m. bore serued whole vnto
 the board. 230.l
 Boreas wind. 23.a
 Borystenes riuer. 154.i
 Bosphori the streights (Thracius and Cimmerius.) 117.f.
 why so called. 115.a. Bosphori, sometime land. 40.l
 Botanisimos, what it is. 577.a
 Bowlters and Raungers. 567.c
 Box tree wood commended in the root most. 1467.c. box tree

serueth for arbores. ibid. of box tree three kinde. ibid. c.
 where it delighteth to grow. ibid. d. the nature of the
 floure and wood. ibid. box tree beareth varietie of
 fruits. 476.g

B R

Brake, see Ferne.
 Braine of a Date tree. 386.m
 Brambles of three sorts. 485.e. with a blacke berry, with
 a reffe, and a red berry. ibid. f. the bramble Idax, which
 is Raspis. ibid.
 Brance, what corne. 559.d
 people Branded with hot yrons. 116.b
 Brasse, where first found. 80.m. brasse-founders the first.
 188.k. brasse forges and furnaces, who denised. ibid. k.
 Brawne of wilde bores in great request. 230.l
 Braines the coldest part of mans body. 332.m. they are
 without bloud or veines. ibid. by feeling they waxe
 hard. 333.a. without fleshe, bloud, filth or ordure. ibid.
 braines, the fort and castle of the senses. ibid. braines
 and eies die first. 340.g. of braines and the braine par.
 332.l.m.
 Bread of sundry sorts, according to the meat eaten there-
 with. 566.l. bread Paribick or water-bread. 567.a
 Breadth of the earth. 48.f
 Breath of Lions stinketh. 255.a. breath of beares pestilenc
 and deadly. ibid. breath of men by what meanes it is in-
 fetted. ibid. b. breath of man shall retorne into the aere.
 ibid. it is corrupted by much drinking of wine. ib. breath
 of Elephants, what vertue it hath. 355.c
 Breeding time in plants. 471.a
 of the Brest in man and beast. 343.e.f
 Breast apples. 438.f
 Bricke and tile who denised. 188.k
 Bricks and tiles raigned. See Raine.
 Brimstone mine. 568.i
 Brims of the cie-lids being wounded, cannot be drawne toge-
 ther. 336.i
 Brittain, an Island renowned. 86.k
 Brocci, who they were. 336.l
 Brochos what it is. 363.a
 Brood-ben starre, Virgilia. 588.b
 setting of brood-hens. 589.f
 Broome, where and when to be set. 523.c
 Bruscut in maple. 467.a
 Bruta, what tree. 371.a
 Brutum a promontory. 51.b
 Bryon (Aromaticum) what it is. 375.d
 Bryon a weed in the sea. 401.e
 B V
 Bubetij, what plaies they are. 550.k
 Bubulcus, surname to the house of Iuny, whereupon. ib. b.
 Bucephalia the citie. 221.a
 Bucephalus King Alexanders horse. 220.l. his description
 and rare qualities. 16.m
 Bucklers of what wood they be made. 590.k
 Buffles borne of eight gallons. 331.f. buffles horne how it is
 used. 332.g
 Building upon land in the country. 544.g
 Bull baiting. 225.a
 Buying and selling who denised. 187.e
 Bulls wild vntameable. 206.i
 Bullas. 437.a
 Bumast

The Table to the first Tome

Bumastigrapes.	405.a	Camelopardalis, what kinde of beasts.	205.d
Bumelia, a kinde of Ash-tree.	465.f	Campaine in Italy a most fruitfull country.	567.e.f
Bunches in wood.	487.l	Canell. See Casia.	
Bura citie.	41.a	Canes. See Reeds.	
Burning and burying of dead-bodies after diuerse sorts.		Canes of India serue betwene ioints, for boats.	482.m
186.l.m.		Canes of diuerse sorts.	483.b
Butter hath the vertue and properties of oyle.	340.k	Canes and reeds how they grow.	ibid.a
Butterfly how it is bred.	329.e	Canarium what sacrifice.	551.b
Butterflies no good signe of the Spring.	586.g	Caucasus.	374.b
Buteo. See Triorches.		Caneias, the workemen that made the stature of Diana at Ephesus.	491.c
Buteo gave the name to the house of Fabij in Rome.	274.k	Canopus the name of a starre, where and in what manner it appeareth, and where not.	34.l
Buzzards good meat.	296.k	Canopus, a goodly starre seen in Taprobane about the pole Antartick.	130.i
Buzzard. See Buteo.		Canterus in a Vineyard, what it is.	528.i.k
B Y		Cantharolethus in Thrace. 327.a. why so called.	ibid.
Byzacium territory of Affricke. 505.e. most fruitfull ground.		Capnumargos, a kinde of red marle.	506.b
Byzia a castle of Thracian kings, hated of Swallowes, and why.	278.l	Capparis, the plant of the fruit capres.	400.i
C A		Caprification to be practised after rains.	546.b
Cadyrys in an Oke, what it is. 400.l. the use and manner thereof.	ibid.	Caprification what it is.	444.k
Cadyrys, what it is.	496.i	Caprisca what it is.	ibid.h
Cadmus, where borne. 108.g. first found out for to write prose.	ibid.	Cappadocians how they tooke their names.	116.b
Cafias wind.	23.a	Caprimulgus, what birds.	292.i
Cacina his practise by Swallowes.	283.a	Carambis promontory.	49.a
Casares and Casones, why so called. 160.i. such commonly fortunate.	ibid.	Carbunculus, burning earth.	503.b
Cesar his breast-plate made of English pearle.	256.k	Carbunculus in corne, what it is.	598.i
Cesar Dictator his liberalitie inuines.	420.h	Cardamomum, foure kinds.	365.e
Cesar rips out of his mothers belly.	160.i	Cardiaca, disesse of the heart.	341.a
C. Caesar his quicknesse of spirit.	168.k	Cardo, what it is.	598.i
Cesar repented him of his clemencie.	ibid.l	Carpinus, what manner of trees.	466.m
Cesar his fidelitie concerning writing.	168.m	Cargimon, what it is.	476.g
Casaris Thronos, a starre.	34.l	Carpheotum.	367.d
Casaria, a citie in Mauritania.	53.d	Caryota dates, why so called, and the wine thereof.	387.d
Caius Hirinus inuented stewes for Lampries in Asia.	267.c.	Caryopon, what drug. 397.e. the worth.	ibid.
Caius Marius first aduanced the Eagle in the Romane ensigne.	273.c	Carob-tree.	390.g
Caine Caligula the Emperour his saying of Surrentine wines.	414.h	Carobs or caracts, what kinde of fruit,	447.b
Caia Cecilia. Looker Tanaquill.	51.b	Carpentry and the tooles, whose inuention.	188.l
Calpe, a Promontory.	ibid.e	Carpophilon.	452.m
Calpe, a mountaine.	259.b	Carsoly territory.	537.f
Calutosa, a kinde of Purples.	316.b	Carthegon, what it is.	476.g
Calydia Island.	375.a	Casia.	372.i
Calcinus Aromaticus.	375.a	Casia, the sweet spice where it groweth. 373.e. the plant described. ibid. Casia the best.	ibid.
Calculation of the yeare by Cesar the Author followeth.	586.l.	Casius a mount of admirable height.	102.g
Calamaries, fishes.	244.b	Caspia, gates so called.	122.g
Calamint first used by Lizards.	210.l	Caspia apart not the streights of Caucasus: they be described.	455.a.b.
Sea-Calfes his qualities.	213.b	Castor and Pollux star, what is to be thought of them. 18.k	ibid.l
Calues chosen for sacrifice.	235.e	wherefore men inuocate them at sea.	ibid.l
Callitriches, a kind of Apes.	225.b	Castoreum what it is.	212.m
Cemalodunum, a towne in Brittain.	36.k	Car of gold worshipped as a god.	546.b
Canmell hath no fore-teeth in the upper iaw.	337.b	Cats how they engender. 302.l. Cats how subtil in hunting.	308.g.
Canmells how they engender.	302.l.	Catacecaumene, a region. 415.f. why so called.	416.g
Canmells their diuerse kinds.	205.b	Caligula his ties stiffe in his bend.	334.k
		Catastra. See Diomedian birds.	
		Cato Censorius commended. 410.l. his precepts touching Vines.	411.a
		Cato perswaded the Senate of Rome to destroy Carthage, by occasion of a figge.	443.a.b.c
		Cato his praise and commendation.	169.f
		Catorchites	

of Plinies Naturall History.

Catorchites, what kinde of Dates.	421.a	Cheese of the best sort made in Dalmatia.	ibid.i
Catoblephus, what kinde of beasts.	206.l	Cheese excellent at Vatesum.	ibid.m
Cati and Cerculi, why so called.	173.b	Cheese of diuers sorts.	349.a
Cause of vomit.	342.l	of Cheese a discourse.	348.l
Cannians naturally subiect to the swelling of the spleene.	331.k	a Cherrie tree bearing armes of a mighty bignesse.	476.m
Cannus presaged ill fortune to M. Crassus.	445.a	Cherrie trees when to be grafted.	523.b
Cauchi, a people without trees, their habitation and country described.	455.a.b	Cherries of a middle kind between berries & grains.	448.g
Canatica, a kinde of Saxiles.	218.i	Cherrie trees brought into Italy. ibid. b. they will not grow in Egypt.	ibid.
C E		Cherries, Apronian, Albian, Cecilian, Italian, Duracin, Plinian, of Portugall, Laurean, Macedonian.	448.b
Cea Island.	41.a	Cherries how they be kept.	ibid.i
Cedar gum.	424.g	Chestnuts rather no be called Mast than nuts.	446.d
Cedars, which be best.	489.a	Chestnuts described. ibid. their kernils ground into meale for bread. ibid. how to be eaten.	ibid.
Cedar oyle.	ibid.	Chestnuts called Sardinian nuts, and why. ibid. named after Sardinia.	ibid.m
Cedar for Masts.	490.g	Chestnuts, Tarentine, Balanitis.	ibid.
Cedars of diuerse kinde.	388.l.m	Chestnuts, Salarian, Corellian, Meteran, Coctina.	447.d
Cedrelate, 389. a. the timber thereof everlasting.	ibid.	Chestnuts which be best.	ibid.
Cedremon, what it is.	434.b.i	Choughs filch mony.	285.c
Celendine revealed by Swallowes.	46.b	Chine-bone. 339. e. the use of it.	ibid.
Celtium, a kinde of Tortoise.	210.l	China, man onely hath.	337.a
Celtie. See Loro-tree.	241.e	Chickens how they be hatched.	298.l
Centigram wheat.	565.b	Children begotten and borne, at what age of the parents.	163.a.b.
Cephus a beast.	205.e	Children not alwaies answerable to their parents in euery respect.	160.k
Cephenes or Serenes, young drone Bees, and how they be fed.	318.i	Children twelve distinct cast away at one slip from a woman.	160.k
Ceratis, a kinde of Comet.	15.e	Children of the Dakes carry the marke of their parents to the fourth generation. 161. a. childre changelings. 158.h	ibid.
Cervus a Mast-tree. 458.m. the mast thereof.	ibid.	Children breed their teeth in the seventh moneth of their age.	164.b
Cerastes what worne. 492. g. worms in figge-trees. 539. c.	331	Children above three at a birth, is monstrous.	157.d
Cerastes serpents. 208. g. Ceraste serpents haue hornes of flesh.	331	a Child returned into the mothers wombe.	158.g
C H		Chimera, a hill in Phoselis, burning both night and day.	47.b.
Cheapnesse of all victuals in Rome. 551. d. the cause thereof.	ibid.f	blacke Choller cause of fury. 341. e. cast up by vomit deadly.	ibid.
Chalcedon, why called the citie of the blind.	114.g	Choromanda, what people.	156.b
Chamadaphne.	452.m	Chilo his sayings counted Oracles. 173.c. how he died and was honoured.	ibid.d
Chamiecraft.	448.b	Chronicles who first denised.	189.f
Chameleons lights are very big.	341.a	Chrysomela, a kinde of Quince.	426.b
Chameleons roll their whole eies.	331.f.	Chydai, certaine Dates.	388.g
Chamelaa.	398.k	C I	
Chamaropes what they be.	387.a	Cich-pease and the nature thereof, how to be sowne.	569.f
Chamemyrsine.	434.b	570.g. sundry kinds of ciches.	370.g
Chani fishes without males.	244.m	Cich-pease how coddled.	ibid.
Characias, a kinde of reed or cane.	483.e	M. T. Cicero the elder his praise.	372.m
Charitoblepharon, a shrub within the sea.	402.k	M. Cicero the younger challenged for a drunkard.	428.g
Charcoale of Oke-wood.	459.c	Ciceruta.	370.g
Charcoale of young tree best.	ibid.	Cicero his commendation.	272.m
Charcoale how it is made.	459.d	Cici. Looker Ricinus.	211.d
Charcoale worst made of the Oke Hatipheos.	ibid.	Cichorie, medicinale to diuerse birds.	211.d
Charpe to drine away haile.	547.f	Cilicia, the description thereof.	104.m
Charmidas his memory.	168.g	Cinnamologus a bird.	288.m
Chasma what it is.	17.h	Cinnamon.	372.f.g
of Chastitie rare examples.	173.f	Cinnamon groweth in Ethiopia. 372. i. exchanged for what commoditie.	372.k
Chats or Catkins upon diuers trees.	459.d	Cinnamon plant described.	ibid.
Chaus a beast.	205.e	Cinnam.	372.f
Chalenophagi hairie all but head.	134.i		
Chelidonie, Islands in Asia.	368.l		
Chelidony, stones in mawes of young birds.	343.b		
Chenelopes. See Birganders.			
Chenerotes.	281.b		
Cheese unknowne to barbarous nations.	348.k		

The Table to the first Tome

Cinnamon the best.	373.a.b	Coggygia a tree, the proprieties of it.	399.c
Cinnamon of two kinds.	ibid.b	Coin stamped with the image of sheepe, kine, and oxen.	550.l
Cinnamon the price.	ibid.	Colaria, a sort of cod-fish.	245.e
Cinnamon root set into the ground in the temple of Augu- stus.	ibid.c	Colon, a gut so called. 343. a. in it is the paine of the col- licke.	ibid.
Cinnamon garland dedicated by Vespasian.	373.d	Colostratia, a disease that commeth of Bee-stings.	348.b
Cinnamon shrub will not prosper in Syria.	478.l	Columbinum Cicer.	570.g
Circos, a kind of Hawke.	274.k	Colour of the king of Bees.	318.i
Circet, Islands (by the retiring of the sea) joyned to the con- tinent.	39.e	Colours in the eye, why they are.	335.b
Circus, the name of a wind.	23.b	Colymbades, what Olines.	432.g
Circumference of the world.	49.e	Comagenum, a precious composition.	381
Citron tree, 359. c. the fruit a counterpoison.	ibid.	Comatas, part of France.	332.i
Citron tree fruitfull. 359. d. it liketh not to be in strange countries.	ibid.	Comarum, what it is.	447.e
pome-Citron kernils good against a stinking breath.	ibid.e	Comets white with silver haire. 15. f. flaggie and like a mane: when such a one appeared, and the continuance of such when they doe appeare.	16.g
Citron tree.	395.c	Comets what they doe fore-token.	ibid.g
Citron tables.	ibid.	Comets newer lightly scene in the West part of the heauen.	16.h
Citron tree beareth not but in Assyria.	478.k	16.h. were worshipped for gods.	ibid.i
Citricke coronets six, given to Manlius Capitolinus.	ibid.	Combat betweene Bulls and Elephants.	195.f
Citricke coronets. 456. b. compared with all others.	ibid.	Combat betweene an Elephant and a Roman.	ibid.e
Citricke coronets fourteen given to Sicius Dentatus. 454. e.	ibid.	Commodities in a ferme, which be most gainefull.	553.e.f
Citricke coronet or garland, whereof it was first made. 457. b.	ibid.d	Commofis, first foundation of Bees worke.	313.g
leaves appertaining to Citricke coronets.	ibid.d	Conception, at what time.	164.h
Citricke coronet at Rome comparable to the best among the Greekes.	ibid.c	signes of Conception. 159. a. of a boy and a girle diffinit.	ibid.d
C L			
Clamato ria, a bird.	277.c	Conception double.	160.l
Clapping of hands reioice Bees.	231.e	Conchylum, a shell-fish.	246.i
of Claves a discourse.	351.c	Conchylia, what fishes.	258.i
Cleopatra her last expense.	257.a	Conger, a fish.	246.b
Q. Cleopatra her rich pearles.	ibid.	Conferration what it was.	550.i
Cleoftratus found out the signes in the Zodiacke.	5.e	Connies kinne every month. 303. d. they admit superfeta- tion.	ibid.
Clerus a bitter thing found in hony combs.	318.l	Connies exceeding fruitfull. 232. h. why they be called in Latine Cyniculi.	ibid.i
Climate pericke yeares.	182.b	Connies haire employed for cloth.	ibid.k
Clodding of lands.	579.e	Connies admit superfetation.	ibid.
Clodius the son of AEsop, his expense and riot in pearles. 257. d.	ibid.	Connies undermine a towne.	212.g
Clogs hanging from Robin trees all but the Larch.	463.	Connies with double liners at Grenada in Spaine.	342.g
Cloth of gold when it was invented.	226.i	Cookes in price.	246.d
Clothes of diuers colours women.	228.i	Conopas, a dwarf.	165.e
Clouds, their shapes.	29.c	Convolvulus, a worme that breedeth in a Vine.	547.b
Cloues a spice.	362.b	how it is remedied.	ibid.
Cluina or Cluina, a bird.	277.c	Cophantus, a hill in Bastriana, burning by night.	47.o
Clepea, a fish, killeth another called Attilus.	243.a	Coracinus, the best fish in Egypt.	246.m
C N			
Cneffon, Cneros.	398.k	Coracini, fishes.	245. b
C O			
Cocks go about with chickens when the hen is dead. 299. e.	ibid.	Corellini his grafting.	520.l
Cocks watchfull and desirous of glory. 279. c. Astronomers.	ibid.	Cordi, what they be.	226.l
ibid. Sentinels. ibid. they lose sovereignty and win it by fight.	ibid.c.d	Corfidus his recovery from death.	184.l
Cockes dreadfull to the Lion.	ibid.e	Cordyle fishes, a kinde of Tunies.	243.c
Cockes of kinde fighters.	ibid.	Cordum, what kinde of hey.	596.g
Cockes beare great sway in Auspices.	279.f	Corke tree. 461. e. the barke thereof. ibid. the use it is put unto.	ibid.
Cockes carried and made capons.	280.b	Cornei, who they be.	166.i
Cocke fighting.	ibid.	Corneill tree, how it beareth. 473. c. the wood how to be employed.	490.h
a Cocke spake.	ibid.	Corneill berries preserved.	449.k
Coccolobus. See Vine Basilica.	412.k	Corne offered to the gods in Numa his time.	546.d
Cocitru, what it was.	335.b	Corne parched for sacrifice.	ibid.e
Cocites, who they were.	245.b	Corne sowing, grinding, and kneading who denised.	187.e
Cod-fish.	245.b	Corne gave names to families in Rome.	550.h

of Plinies Naturall History.

Corne given as a reward to worthy warriors.	ibid.	Crates.	224.g
Corne cheap at Rome.	551.b	Creatures hurtfull to strangers and none else.	ibid.b
Corne divided into two generall heads, Fourmeit and Pulse.	557.c	Creatures without bloud have no livers.	341.a
Corne of all sorts when it commeth after it is sowne.	ibid.e	C. Crispinus Hilarius his traine of children and issue in li- neall descent lining.	162.m
Corne how it beareth head and carieth seed.	558.g	Criobolus healed king Philip his eye. 174. m. his re- ward.	ibid.
Corne spiked what lease it beareth.	ibid.m	Crocodile of the river. 337. a. moneth the upper jaw. ibid.	302.b
Corne spiked bloweth at once.	559.a	Crocodiles male and female sit by turnes.	302.b
Corne differing in ripening.	ibid.a.b	Crocodiles wilde and industrious.	346.l
Corne differing in stalk and care.	ibid.	Crocodiles their description. 208. m. they haunt both land and water.	209.a
Corne how to be threshed and cleansed.	ibid.b.c	Crocute, what kinde of beasts and their nature.	206.g
Corne how it differeth in weight.	ibid.c.d	Cromes, a kinde of fish.	245.k
bread - Corne doth degenerate into Oats.	574.g	Crotalia, what pearles.	256.g
Corne in the field how to be preferred and kept from field- mice.	577.b	Crux, a subtill bird. 276. b. shee feedeth her young being fledge.	ibid.i
Corne how to be sowne respectiue to the soile.	ibid.k	a Crow taught to speake.	294.k
Corne growing upon trees.	577.b	C T	
Corne how to be laid up for store. 603. a. b. what corne will keepe best. ibid. d. c. how corne may be kept sweet and good long. ibid. e. cutting of corne after diuerse sorts.	602.h	Ctesias of Gnidos.	47.b
Coronets Murall. 456. i. Vallare. ibid. Naulle. ibid.	ibid.	Ctesiphon framed Dianes temple at Ephesus.	175.b
Coronets how they came first.	456.l	C V	
Coromanda, a savage sort of people. 156. g. without speech.	ibid.	Cuckow reckoned a Hawke. 275. b. his time of appearance.	ibid.
ibid. toothed like dogs.	ibid.	ibid. killed by his owne kinde.	ibid.
Corus wind.	22.l	Cuckowes lay in other birds nests, and why.	275.c
Coos Island.	323.a	they denoure the young birds of their nourse.	275.d
Cesti, wormes bred in oles. 539. c. they be daintie meat.	ibid.	young Cuckowes fat and delicate meat.	ibid.
ibid.	ibid.	Cuckow checketh the idle husband that is behind hand with his worke.	593.b
Costus a spice. 384. h. the Kindes and price thereof.	ibid.	Cucu, a tree.	390.k
Cottinus, what tree.	468.h	Cuir wine, Melampithium, Psithium.	416.l
Cotton trees. See Gofampine.	395.a	Cuits of sundry sorts.	416.m. 417. a
Cotton trees in Ethiopia.	ibid.	Culeus, the biggest measure of liquor that was among the Romans.	606.g
C R			
Crab-fishes their nature.	252.k.l	Countries, the varietie and diuerse disposition thereof. 36.m	36.m
Crab-apples.	438.m	Carites towne.	40.m
Crab-trees bearing twice a yeare.	474.m	Curtius, a noble knight of Rome.	443.f
Crabs onely four-footed among fishes.	351.l	Cusculum, what it is.	461.a
Cræsus his somes vntimely speech. 353. e. it was prodigi- ous.	ibid.	Cutting of corne after diuerse sorts.	602.b
Cranes how they flie.	281.c	Cuttle fish. 256. g. their nature.	350.g
Cranes tamed, very plaisfull.	ibid.f	C Y	
Cranes a daintie dish.	282.g	Cybia, quarters of Pesaurides.	243.d
Grapula what it is.	464.k	Cyce, certaine Dates.	388.g
Crapula, what mixture it is, and what effects it worketh.	424.h	Cyclopes, monsters of men.	154.g
Craffus Agellatus was neuer knowne to laugh all his life time.	166.b	Cybramus, what bird.	283.a
Cressenium, a kinde of Maple.	466.m	Cyneas his merrie scoffe at a Vine that bare hard mines.	168.g
Crater Nymphai, a hollow burning furnace, and vnfur- nate to the Apollonians.	47.d	Cyne trees.	363.f
Craterus Monoceros, a most excellent Hunter, or Hawker.	294.k	Cynobatos.	401.a
Creatures that lie hidden in the earth, at times haue no blond at all.	346.h	Cynofura, what kinde of addleeg ge.	301.e
Creatures are not all hairie that bring forth quicke young.	ibid.m	Cyonoides, water-serpens.	243.b
Creatures none of them haue an odde foot.	351.e	Cynoccephali, a kinde of Apes or Monkeys.	232.g
Creatures which onely be round.	ibid.	Cypresse tree will not be dunged nor watered.	544.a
Creatures whole hawfed, their legs grow not in length. ibid. f.	ibid.	it is worse for good Physicke.	ibid.
what creatures will not live nor breed within some coun- tries.	ibid.	Cypresse trees beare ordinarily thrice a yeare.	475.a

The Table to the first Tombe.

Cyprinus oyle. 376 g. 382 b
Cyprus, an Egyptian tree. 375 f
Cyprus Island, 48 k. joined sometimes to Syria. 401
the compass and length thereof. 110 m
Cyrene, the description thereof, 94 k. famous, and why. *ibid.*
Cytisus highly commended for feeding sheep and other cat-
sell. 400 l. m. it encreaseth nurses milke. 401. a. b. c
how it is to be planted and ordered. *ibid.*

D A

DAbulawhat they be. 386 g
Dailyl, certaine grapes. 405 f. why so called. *ibid.*
Daffodill flowereth thrice, and sheweth three seasons of plom-
ing. 592 b
Daphnoeides Isocinnamon. 374 g
Daphnoeides. 453 a
Daphnitis. 452 m
Date trees their sundrie kinds. 384 m. 385 b
Dates how they be imploied. *ibid.*
Of a date tree and other plants prospering under it, a won-
der incredible. 581 d
Date trees described. 385 c. d
Distingnished by seeds evidently. *ibid.*
Dacke Dates. See Choughs.
Dates how they are to be set. 385 e
Damanerus turned into a Wolfe. 207 d
Date in Egypt. 374 l
Dates conceine by the presence of the male. 386 g. h
Date trees corne of slips and branches, as well as of ker-
nells. *ibid.*
Date trees spring of their owne leaves. 508 m
Dates gualded. 386 l
Date tree growing in the Capitoll of Rome. 143 e
Dates of 49 sorts. 387 b
Dates Royall. 161 d
Dates of Iurio best. 387 e
Dates of sundry sorts. 388 b
Dates serve to franke Swine. *ibid.*
Damascene prunes. *ibid.*
Date tree leaves serve for cordage. 470 l. how to be pulled
and ordered. 470 l
Date trees like not in a strange country. 478 k
Date tree of great antiquitie. 495 e
Dathiatum what it is. 367 d
Dates how they come to be unequall, and not of certaine
length. 13 f
Daylight in the night. 18 g
Daylight upon earth, the reason thereof. 35 c
Day where it is longest and where shortest. 36. s
continual day for six months. *ibid.* how daies are ob-
served. 36 l
Day for six months together, where. 84 i
the kindnesse of a Daughter to her mother. 174 b
Daughters of Agrippa deliuered of two tyrants. 160 g
Daphnis a bondslane how highly praised. 175 e
Dando a Scelauonian, liued five hundred yeares. 181 a
Dailyle fishes. 209 f
Daughters of Marcus Curiatius, why they were called
Sedigitæ. 349 c
Dancing whose inuention. 189 e

Death suddaine. 185 c. d. &c.
Dead supposed reuoner. 184. b
Deale. See Firre.
Deaw when it appeareth. 29 b
Signes of Death in sicknesse. 183 e
Dead bodies weigh more than quicke. 156 e
Deafe naturally be dumbe. 306 g
Decumanus lines, what it is. 609 b
Deere, where they haue foure kidneys apeece. 343 d
Decapolis, why so called. 701 e
Defrutum, what it is. 416 l
Delos Island. 40 g
Delos Island famous, and why so called. 81 b. the diuerse
names thereof. 161 d
Demetrius spared to burn Rhodes for the loue of a picture. 175 d
Demetrius foreseeing by the stars a dearth of oile, bought
vp all aforehand. 598 g. hee fained two gods, Punis-
ment and Benefit. 3 d
Demetrius in hot weather fore-saw a shewre of raine and
foretold it. 610 m
Deuteria what wines. 417 e

D I

Dials, where first inuented. 191 b. not serving for all
places. 35 d
Dialota, a kinde of Purples. 29 b
Dianus Murrie. 369 b
Dianæes temple at Ephesus, foure hundred yeares in buil-
ding. 491 b. of what timber it was built. 161 d
her image of wood. 491 c. by what means it endured so
long. *ibid.*
Dianæes temple at Saguntum. *ibid.*
Dibapha, what Purple diges. 260 i
Dianæes temple in Aulis. 491 e
Dia Palmata, what they be. 383 c
Dicaearchus his commission. 31 d
Digestion of meat worse in Summer than in Winter. 355 f
Digestion in scope of what effect. 356 g
Diademe first inuented. 187 e
Diuination by beasts who denieth. 189 d
Dinocharæ, a renowned Architect. 99 b
Diomedian birds described, and why so called. 294 m
295 a. b.
Dibapha, what dies. 260 i
Dioscurias, a famous citie of the Colchians. 117 c. d
by whom founded. *ibid.*
Diunors, or men of a propheticall spirit. 173 d
Dionysius being deposed from his kingdome, the sea-water
grew to be fresh. 44 i
Dionysiodorus a Geometrician. 49 c. and his Epistle found
in his sepulchre, and the contents thereof. *ibid.*
Diomedes his lake. 94 g
Diomedes his horses. 78 b
Diribitorium. 489 d
Discord betwene beasts. 308 b
Diuersitie of childrens resemblance of their parents. *ibid.*
Diuision of fishes. 247 d
Difference betwene brains and marrow of the bones. 333 a
Difference of eie-sight in men. 334 l
Diuersitie of moutbes in creatures. 336 l
Diuersitie of teeth in creatures. 337 a
Dica-

of Plinies Naturall History.

Diseases strange incident to men and women. 182.l. as
 strangely cured. 183.a. who lived long without disease.
ibid. b.
 Diseases of sundry sorts. *ibid.* c.d
 Diseases that haunt trees. 538.m
 Distances in planting how to be observed. 514.l
 D O
 Dogs shining beames in the skie. 17.b
 Dogs loving and faithfull to their masters. 218.l
 Dogs rejoyce a king to his crowne againe. 218.m. their af-
 fection to their master. 219.a
 Dogs employed in wars. 218.m. their rare properties. 219.c
 one Dog ouercometh a Lion and an Elephant. 220.g.b
 Dogs mad. 220.i. how they be preserved from madnesse. *ib.*
 A Dog speaketh. 220.k
 Dogs come into Hercules temple in the beast-market at
 Rome. 285.d
 Dogs will not live in the Isle of Sygaros. 141.e
 Dog-starre his power. 19.f
 Dog-starre powerfull on the sea. 245.c
 Dog-starre of great effect and precious. 597.d. highly ho-
 noured. *ibid.*
 Dolphins their nature. 238.b.i
 Dolphin swiftest of all fishes and creatures. 238.m. swifter
 than an arrow out of a bow. *ibid.* sort themselves like
 man and wife. 238.i
 Dolphins louingly affect men and musicke. *ibid.* l. they loue
 mankind, diuerse examples thereof. 238.m
 Dolphins know the name Simo. *ib.* they helpe fishers to catch
 fish. 240.i. they haue a certaine commonwealth. *ibid.* l
 Dolphins haue no eares. 333.c
 Dolphins enemies to Crocodiles. 209.c
 Dormice kept tame. 233.b. they sleepe all winter. *ibid.* c
 kinde to their fires. *ibid.*
 Doricke tune. 14.l
 Doue Doves chaff. 290.g. hen-Doues meeke. *ibid.* b. the
 cocke ialous. *ibid.* kinde to their pigeons. *ibid.* i. how they
 drinke. *ibid.*
 Doue Doves line long. 290.k. their tune. *ibid.*
 Doue winks with both their eie-lids. 336.i
 Doue Doves glorious. 290.m. taken in their pride by the
 faultcon. 291.b. they loue the Kestrell or Stanell, and
 wherefore. *ibid.* doues employed as posts and courriers
 betweene. *ib.* c. how they be kept to their owne doue-cote.
ibid. doues and pigeons of great price. 291.d
 Doues how often they sit and lay in a yeare. 298.i. house-
 doues hatch a cocke and a hen pigeon. 300.k. hen-doues
 tread one another for want of a cocke. *ibid.* l
 Dowax, a kind of reed. 485.c.k
 Dought how it is made. 560
 D R
 Sea-Dracgon. 249.d
 Dragons in vines what they be. 536.b
 Dragons fight with elephants and their subtiltie. 198.k
 where they breed. 199.c. Dragons procure appetite to
 meat with the iuice of wild lettuce. 271.a
 Some men neuer Dream. 309.c
 diminution by Dreames who first practised. 189.d
 Dreames common to all creatures that bring forth their
 young quicke. *ibid.*
 Drepanis the sea-swallow seldom seen. 351.d
 Drinke may be forborne altogether. 166.g

Ebene wood maketh a sweet perfume.	ibid.	order their teeth. <i>ibid.</i> what use they make of them. <i>ibid.</i>	
Ebrus river.	503.d	they know wherefore they are hunted. 193.e. their clemencie to man. 193.f. their feare of mans footing. 194.g	
E C		Elephant how he uttereth his voice. 353.e. their manner of march. 194.i. their passage over rivers. <i>ibid.</i>	
Echeta, a kinde of grasshoppers.	325.e	Elephants bashfull and shamefull. <i>ibid.</i> k.l	
Echinometra fishes.	253.b	Elephants two of K. Antiochus. <i>ibid.</i>	
Echineus a fish. 248.m. it staith the flux of women.	ib.a	Elephants, their time of generation. 194.l. their affection in love. 194.l.m. 195.a. both to their owne and also to mankind. <i>ibid.</i> their memorie. 195.a. their insfice. <i>ibid.</i>	
Echini, orchins of the sea.	253.a	when they were first scene in Italy. 196.b. baited in the cirque of Rome. 195.c	
Echo, and the reason thereof.	21.d	Elephants fight in the cirque of Rome. <i>ibid.</i> o	
Eclipse of the Sun and Moone. 7.d. why they are not eclipsed at set times.	ibid.	an Elephant of wonderfull courage. 196.g. their industrie. <i>ibid.</i> moone people to pittie. <i>ibid.</i> b. Elephants fight. <i>ibid.</i> k	
Eclipse, who were the first findes out thereof.	8.l	Elephants gentle to weaker beasts. <i>ibid.</i> k	
Eclipses much feared, and of whom.	9.a	Elephants harmelesse, unprouoked. <i>ib.</i> their manner of fight. <i>ibid.</i> l. 197.d	
Eclipse of the Moone thought to be by enchantment, and to be helped by dissonant ringing of basons.	ibid.	Elephants how they be taken. 196.l. 197.a. b	
Eclipses, in what time they have their returne to the former points.	9.g	Elephants mad in time of rust. 197.c. how they serue in warre. <i>ibid.</i> d	
Eclipse of the Sun when it happeneth.	9.g	Elephants affrighted at the grunting of swine. <i>ibid.</i>	
Eclipse of the Moone alwaies in the full.	ibid.	Elephants how long they goe with young. 197.e.	
Eclipses how often, in what space, and the first finder out thereof.	9.d	Elephants in India bigger than African. 197.e. 198.k	
Eclipse longer than ordinary when Caesar Dictator was murdered.	17.e	they lowe waters. 191.i. can abide no cold. <i>ibid.</i> their food. 198.g. their trunk and the use thereof. <i>ibid.</i> they cannot abide a mouse. <i>ibid.</i> they take harme by swallowing a horse-leech. <i>ib.</i> b. their skin. <i>ib.</i> it serueth to kill flies. <i>ibid.</i>	
E G		Elephants teeth of great price. <i>ib.</i> and the use of them. <i>ibid.</i>	
Egs diuerse in colour.	298.g	Elephants trunk vsed for meat. 198.i. where they breed. <i>ib.</i> k	
Egs of birds of two colours within the shell.	ibid.	their policie, and the reason thereof in nature. 199.a	
Egs of fishes of one colour.	ibid.	Elder tree good for pipes. 485.e. the berries for what use. 486.g. their stakes best to prop vines. 526.g	
Egs of birds, serpents, and fishes, how they differ.	ibid.	Elegia. 483.g	
Egs best for an hen to sit upon.	299.a	Elme seed when to be gathered. 512.g. how to be sown. <i>ib.</i>	
Egs hatched without a bird. 299.c. ouer by a kind heat. <i>ib.</i>	299.b	Elmes of diuerse kindes. 467.e. f	
Egs how they be married vnder an hen.	ibid.	Elme a tinia not good for vines. 535.a	
Wind-Egs called Hypenemia. 300.l. how they be engendred. 301.e. wind-Egs Zephyria. <i>ibid.</i>	ibid.	Elmes husbands to vines. 512.b	
Egs drawne through a ring.	ibid.	Elops, a fish. 245.e	
Egs how they be best kept.	ibid.	Elpis taketh a bone from betweene a Lions teeth. 203.d	
Egnat. Mecennius killed his wife for drinking wine. 418.k	334.d	Elleborine. 398.i. the leaues medicinable. <i>ibid.</i>	
of Eye plucking out, vomit followeth.		E M	
E L		Emperour Nero drawne by monstrous beasts. 352.o	
Elaterium what it is.	369.a	Embroidered workes, whose deuise. 228.i	
Elate.	379.e	Emerita, a place in Portugall. 261.b	
Electrum a kinde of metall.	260.l	Emplastration, what manner of grafting. 519.d. e	
Elements three, Water, Aire, and Fire, haue neither sauour nor taste.	449.b	E N	
Elonchi, what pearles.	255.f	Endimion, when that fable first sprang up of being in love with the Moone. 7.a	
Eloomeli, what it is.	435.a	what beasts engender backward. 302.k	
Elephants cure themselves by the wild oliue.	211.c	Engines of battery whose invention. 189.b. c	
Elephants bring forth but one at once.	303.d	English oysters best of all others. 267.a	
Elephants tooth. See Tuorie.		Enhamon, a soueraigne salue. 370.l	
Elephants haue broad tongues.	339.a	Enuious persons are venomous. 543.m	
Elephants haue foure bellies or paunches.	343.b	E O	
Elephants most industrious and witty.	346.l	Eone a tree, 399.b	
how they bend their hams.	350.g	E P	
Elephants capacite, vertue, religion, desire of glory. 192.i		Ephemerides, who first deuised. 188.g	
The biggest of land beasts. <i>ibid.</i> they adore the new Moone. 192.k. subiect to sickness. 197.f. their docilitie. 192.l		Epirus description. 72.k	
193.b. they plough the ground. <i>ibid.</i> they draw in a chariot. <i>ibid.</i> their manner of dauncing. <i>ibid.</i> their feats of activitie and nimbleesse. 193.a. an Elephant geeth up and downe ropes. 193.b. writing Greeke characters. <i>ibid.</i> embarked and their manner of landing. 193.c. their armes called hornes or teeth. <i>ibid.</i> they hide their teeth. <i>ibid.</i>		Epimenides his sleepe. 184.i	
Elephants young how they be knowne. 193.d. how they		Ephesus a famous citie of Asia. 109.b	
		Epilepsie.	

Epilepsie, whence it is. 335.a
Epiglottis, a little tongue at the root of the other. 339.b
it is in no creature that layeth eggs. *ibid.* use of it. *ibid.*
it is two fold. *ibid.*
Emys, what it is. 585.d
Epipactis. 398.i. the leaves medicinable. *ibid.*
Ephefus, sometime it was so neere the sea that it did beat
upon the temple of Diana. 39.a
Epopos hill. 40.h
Epidanrus Island. 40.k

E R

Eratosthenes measured the globe of the earth, by what
light and direction. 44.g
Eratosthenes a most cunning cleark. 49.b. 36.h
Eratosthenes a writer his great praise. 49.b
Erythrae, Sandaracha Cerinthus, food of bees. 313.b
Erythrae effected of spring dew. *ibid.*
Erythrae. See Robin-redbreast. 1
Eric am, a kinde of wild bong. 317.d
Ernle not chargeable in sowing. 572.i
Exulte medicinable by the testimony of Augustus Caesar.
572.k. when to be sown. *ibid.*
Error in numbering of yeares. 181.a
Erysimum, what kinde of corne. 565.b
Erythini, fishes alsoe either female. 244.m
Erythrae, myrrhe. 369.d
Erythrepton. See Aspalathus.
Erythrocoma, Pomegranats. 398.g. b

E S

Esculetum, a grone neere Rome. 462.g
Esculus the mast thereof. 458.m
Esculus runneth as deep into the ground as it riseth aboue
the ground. 477.o
Essent, people throughout the world most wonderfull. 101.d
carnall lust they know not. *ibid.* keepe company onely
with date trees. *ibid.* continued many thousand yeares
without generation. *ibid.*

E T

Etesia, the name of winds. 23.d
Etesia winds. 97.f. 473.k

E V

Eumecos. 376.l
Eunimium, a tree. 399.b
Evrosas river flowing ouer Peneus river like aile, not min-
gled therewith. 76.l
Europe the measure thereof. 89.d
Euphorbia beaerh the wonderfull vertue thereof. 92.i
Euphrates a famous river, the description thereof. 103.d
Euphalon. 453.a
Europe not the third part of the earth. 31.a. but the one
halfe. *ibid.*
Euthristos. 376.l
Eutycha, a woman of Tralleis deliuered in her life time of
thirrie birrbs. 157.c. carried to her funerall by twentie
of her children. *ibid.*
Euthimines his finnes growth. 165.c
Euthimus a wrestler honored as a god. 180.k

E X

Exaetum what fish. 247.b. 488.i
Experience best prooffe. 502.k
Exceedments of mans body best dang for ground. 507.c
Exalunat parles of commendation. 255.f

E Y

Eyebrowes of man like the eomes of a house. 333.d
Eyebrowes the seats of pride. *ibid.*
what liuing creatures haue no Eyes. 333.f
one Eye in some Herons. 334.g
Eyes of sundry colours. 334.g. b. e
ballor apple of the Eye different from the other parts. *ibid.*
Eyes, how the affection and disposition of the mind. 334.k. l
membranes of the Eye. 335.a. b
opticke nerues of the Eyes whether they reach to the braine
or somacke. *ibid.*
Eyes why they be closed crementiously in the dead. *ibid.*
Eyes yeeld forth teares. 334.k
Eyes sometime why they see not, and be well. 335.a
Eye sight how it is placed. *ibid.*
Eyelids, their vse. 336.g. why they shed their haire. *ibid.*
Eyrooth of a wolfe on the right side worketh wonder. 337.f
of Eye sight quicke, wonderfull examples. 167.b

F A

F Abarin. 569.a
Fabaria certaine Islands. 596.d
Face proper onely to mankind. 383.d
Faciun what it is. 433.d
Fall of lease a good rule for husbandmen to direct them in
seedes. 588.i
Falcon helpeth the owle in fight. 277.f
Following each other yeare. 481.b
Fagutalis, Iupiter at Rome. 461.f
Farrago. 572.e
Farrage corne or dredge. 573.a
Farina, whereof it is deriued. 564.g
Fabius a Senator of Rome strangled with a haire. 159.e
Fauonius the Westerne wind, why so called. 471.d. why cal-
led Chelidonius. 23.c. why named Oriothus. *ibid.* highly
commended. 569.a
Fairies seen oftentimes in the deserts of Affricke. 157.c
they vanisb away like illusions. *ibid.*

F E

Fecall Fornacalia instituted by Numa. 549.e
Fecatum what it is. 417.f
L. Sylla called Felix, yet unhappy. 177.e
Felicite diuersly vnderstood. 276.h
Feeling a sense common to all creatures. 306.l
Femals may certainly turne to be males. 158.f
Femals haue smaller voices than males, except kind. 353.e
Female firrs taller than the male. 563.b. s
Fenigreeke to be sowne negligently. 552.b
Ferrets naturally hunt conies. 232.b
Ferals, two kinds. 399.d. root of Ferula dangerous. 399.f
Ferula maketh excellent fine matches. 400.h
a Ferme house how to be purchased and chafen. 553.b. c. d
Ferne or brake how to be killed. 556.m
Fesant bastards. 288.e
Fesants of Colchis daintie birds. 296.g
Fesant will die of lycie. 329.d
Fevera, a chappell dedicated to her. 3.e

F I

Figtree beare fruit contrary to other trees, and why. 474.k
Figtrees beare twice a yeare: wild figtrees beare thrice a
yeare. *ibid.*
H h b z
Figtrees

The Table to the first Tome

Figures milke or sap serueth for vendes.	486.g	Fire glasses opposite to the sun-beames sooner inflame than	47.f
Figs Luvian. 442.i. Pompeian. ibid.		Fire the highest element.	2.l
Spickled figs. ibid. Herculanian. 442.i. Albicorate. ibid.		Fires about the body of men.	48.b
Arabian. ibid. Porphyrie. 442.k. Popular. ibid. Chetido-		Firmament seen to chinke and open.	17.g
nian.	ibid.	Fishes feed on land. 235.c. diuided according to their sun-	
Figs both early and lateward. 442.k. Figs Dyracina. ibid.		dry shapes.	247.d
Chalcidian figs beare three times in one yeare. ibid. Ta-		Fishes of all sorts breath after a manner.	237.c
rentine figs called Oina or Oenades.	ibid.	Fishes both heare and sleepe.	ib. & 306.b. 309.b
Figs as big as pears.	442.g	Fishes changing colour.	249.d
Figs of Ida described.	ibid.	Fishes which be blindest.	249.c
Figtree Alexandrina. ib. Figtrees of Hyrcania.	442.b	Fishes esteemed diuersly in sundry places.	246.m
Figs: Chalcidian. 442.b. Chian. ib. Lydian. ib. Mammillane		Fishes are not all alike couered.	242.h
or tent figs. ib. Callistrubian. ib. African. 442.i. Alex-		Fishes some milke in cold, others in heat.	245.b
andrine or delicat. ib. Rhodian. ib. Tyburtine.	ibid.	a Fish leapeth out of the water at Casars feet.	244.l
Figdares when to be planted.	442.l	Fishes how and where they like and fine best.	245.a
Figs African, Saguntino, Tolian.	ibid.	Fishes of what kinde they be all spawners & multipliers. ib.	
winer figs.	ibid.	Fishes haue sense.	261.d
Figs fall from the tree, if it thunder at the feast Vulcan-		Fishes of all creatures haue the big gett heads.	332.g
lia.	546.k	Fishes their eyes shine by night.	335.c
Figs of Mæsia ripen when other blossome, by what denise.		Fishing time which is best.	244.m
442.m.		Fishes that be soft haue no bones.	345.a
a Fig the occasion of Carthage ouerthrow.	443.b.g	Fishes female commonly bigger than male.	244.l
Figtree Nania in Rome.	443.d	Fishes doe smell.	306.b
Figtrees Riminalis.	ibid.	Fishes presage things to come.	244.l
Figtree in the Forum at Rome.	ibid.	Fistlike nuts, and their nature.	388.l
Figtree before the temple of Saturne in Rome.	443.l		
Figs ripen altogether on the tree.	444.b	F L	
wild Figtrees.	ibid.		
Figs ripen the sooner by the meanes of wild figtrees. ib. h. k.		the Flap Epiglossis.	339.c
Figs of the Isle Ebrus is the best.	444.l	Flies drowned will reuine kept in ashes.	330.l
Figs how they be put up and kept.	ibid.	Flies engendered of dust.	329.a
Figs good victuals.	ibid. m.	Flies enter not into Hercules temple in the best-markes at	
Figs: Coctana, Carica, Cannia.	ibid.	Rome.	285.d
Figtree made fruitfull by the sea onto Squilla. 514.g. it is		Flies breed in the fire at Cyprus.	330.i
drier in the midst than at the head.	517.c	Floore for threshing how to be tempered.	602.d
Figtree how it is made to beare olives.	524.g	Floralia a festiual holiday.	600.g
Figtree of all other ageeth the soonest.	526.m	Flacci why so called.	333.b
Figtree groweth best by the water side.	544.i	Flockeworke.	277.c
Figs how they are ripened by capriciation.	545.c	F Q	
Figs how they are made smooth and pleasant.	547.b		
a Figtree of India. 360.k. the description thereof.	ibid.	Forehead betweth the nature of man or woman.	333.e
setteth it selfe.	ibid.	Food of sundry creatures.	307.d
Egyptian figtree. See Sycamore.		Fowles distinguished generally by their feet.	276.g
Syrian figtree.	389.e.f	Fowles why they pecke at the eyes of a man.	335.c
Fields in Ethiopia about the hill Hesperis shine and glit-		Fortune a goddesse, her vniuersall power. 4.k. her mutabili-	
terlike starres.	47.d	ty. 177.m. variable fortunes of diuerse persons.	177.b
Filberds called Abellina, whereupon.	446.b	to bad-Fortune at temple.	3.c
Filberds: Calua, Præstina, Thasian, Albanian, Taren-		Fowles that haue crooked talons be long legged.	351.d
tine, Molluscæ.	ibid. i	Foliatum oiment.	382.k
Fines passed under the name of sheep & oxen at Rome. 550.k		Fountaines of wonderfull and strange naturos.	45.a.b
Firrs taller than any rosin tree.	465	Fountaine from under the sea yeelding fresh water.	110.l
Firrs topped dis. topped line.	476.i	Forreits in Germany.	455.c
Firrtrees how employed and how to be chosen.	488.l.m	Foxes very quick of bearing. 222.g. how they engender.	262.g
Firre mass for shipping.	489.f	302.m. sea-Foxes.	120.l
Firre is good for planks.	547.a	Strange Fowles in the Island Area.	
Firre how it will not purrife in water.	492.i	F R	
Firre wood highly commended in carpentry and ioyner's			
work.	493.a.b	France not subiect to earthquakes, and why.	38.b
Fire bird. Look Incendiaria.		Fraud of Toranius a merchants slauie-seller.	162.g
Fire in the hill Chimera flamed with water and quenched		Frogs force inhabitants to abandon a citie.	212.b
with earth.	47.c	Frogs Rubeta.	213.a
Fire the meruilles thereof.	46.m	Frogs how they make their noise.	338.l
		Frankincense male what it is.	367.d
		Frankincense best how it is knowne.	368.i
		Frument what it is, and of how many kinds.	557.c.d
		Frankin-	

of Plinies Naturall History

Frankincense only in Arabia.	366.g	Geese liner is excellent meat as is it ordered. 280.i. who de-	
Frankincense tree described.	ibid. k	vised the same dish.	ibid.
Frankincense gathered. 367. a. the manner thereof.	ibid. b	Geese traiailed asoft from Terwin and Turney in France	
Frankincense pareth much toke. 368.b. high price of Rome.		to Rome. 280.m. their feathers and downe.	ibid. a
ibid. i.		Geese how they sit and hatch.	301.b.
Frize mantles.	227.f	Geese exceed vs in smelling.	305.f
Fronditus passed ouer the riuer Valturnus in spight of		Geese where they build, and how they breed.	274.g
Annibal.	499.c	Geometritian who was excellent.	175.a
Frost how it is engendered.	29.b	Generation of mankind, the reason thereof.	162.i. k
Fruits how to be preserued.	440.m. 441.a.b	Gef. clubron a famous case.	154.k
Fruits grow after diuerse sorts. 450.g. b. in what regard		G H	
they be set by.	ibid. i	Ghost of Aretius in forme of a rauen.	184.i
Frument or spike-corne.	582.b	Ghost abandoning the bodie at times.	ibid. h
Frumentie corne.	559.d	G I	
Frumentie bastard.	568.i	Giants in times past.	165. a. b
F V		Giadineffe in the braine ten daies after the women hath	
Fullers craft who found out.	188.i	had company with the man, sheweth conception.	159.a
C. Furius Cresinus a notable good husbandman, accuscd		Gilt head a fish.	245.b
and acquit.	556.g. h	Ginney or Turkie hens.	296.g
Fur long how many paces.	14.l	G L	
Furnaceus panis, what it was.	566.m	Glandules or kernels in swine.	339.b
Furrowes direct.	579.e	Glanis a fish, her nature.	262.g
Furrowes ouerwart.	ibid. l	Glaucæ lound of a goose.	280.k
Fufius Salinus his strength.	166.l.m	Glaucus a sea-fish.	245.b
Fusterna in trees what it is.	488.f	Gledes. See Kites.	
F Y		Glew made of an oxe hide sodden. 347.c. what woods will	
Fyre striking out of a flint, who denised.	188.m	not be glewed. 493.c. the best glew is made of bulls	
G A		hides.	347.c.
Gabalum.	314.b	Glo-birds or Glo-wormes, what they betoken.	593.c
Gabara.	165.b	Glottis what bird.	283.a
Gades.	48.i	Glo-wormes, why they be called Lamprides. 326.l when	
Gagates. See Actites.		they first appeare.	ibid.
Gall in serpents is their venome.	337.c	Clynon a kinde of Maple.	466.l
Gall hangs at the liner. 341.c. it is not in all creatures. ib.		G N	
Gall of a Deere where it lieth.	341.d	Gnats.	310.l
Gall infecteth the body with the yellow jaundise.	ibid. e	Gnat hath all the fine senses. ibid. i. thirstie of mans blond.	
Gall of seals good for many purposes.	342.g	ibid.	
Gallanum a gum. 518.i. the best how it is knowne.	ibid.	Gnat-snappers what kinde of birds. 286.m. when they be	
the vertue and the price.	ibid.	called Ficedula. 287.a. when they be called Melancory-	
Galguli what birds, and how they build.	288.l	phi.	ibid.
Gallia the description thereof.	87.a	Gnefos the royall Eagle.	272.g
Gall-nuts of the oke Hemeris best for curriours.	460.g	Gnomon, what.	35.c
Gall-nuts appropriate to mast trees.	ibid.	G O	
Gall-nuts, which be best.	ibid.	God, what he is.	3.d
Gall-nuts breake forth all in a night.	ibid.	Gods thought to be many, and how this foolish opinion first	
Gamale, a territory in Phœnicia.	40.m	sprang. 3.d. To asigne any forme to God is mans weak-	
Games publique who first ordained.	189.f	nesse. 3.i. Plagues accounted as Gods.	ibid.
Games soleme: Olympia, Isthmia, Pythia, Nemea.	457.a	Gods more in heauen, than men in earth, if they should be	
Ganders and geese how they do engender.	301.b	so many as men do feigne.	3.e
Ganges the description thereof.	126.b	men haue accounted beasts, and other filthy things to bee	
Ganges a riuer.	48.k. 156.i	Gods.	3.e
Ganza what geese.	281.m	Gods that they be married, vaine it were to beleene.	3.e
G E		God feigned yong and old, winged and lame.	3.f
Geese bashfull and modest.	279.a	Gods, in them are feigned adulteries, hatred, and wars.	ib.
wild-Geese in what manner they flie.	282.k	Gods worne upon fingers in rings.	4.b
Geese watchfull. 280.i. Ianed the Capitoll. ibid. provided		Gods cannot do all things, as to die.	5.a
for with the first state of Rome.	ibid.	Gods not innumerable.	3.d
Geese giuen to loue mankind.	280.k	Gods, Democritus maketh two onely.	ibid.
Geese seeme to haue understanding.	ibid.	a God canonized here vpon earth.	180.i
		Gold, what people hath it.	128.b
		Gold mines who discovered.	188.k
		Gold melting, trying, and fining, whose denise.	ibid.
		Gold.	154.k

The Table to the first Tome

Goats, their manner of breeding. 229. a. both male and female. *ibid.* how they helpe their eye-sight. 229. b. their wit. *ibid.* male goats which be best. *ibid.* female goats how to be choſen. *ibid.*
Goats euer in an ague. 229. d. their hatred in ſtead of wooł vſed in cloath. *ibid.* they barke and kill trees. *ibid.* the goats beard. *ibid.* how they breathe. 229. d. they ſee by night. *ibid.* they kill oliue trees by licking them onely. *ibid.* e.
Goats wilde of ſundry kinds. 231. c
Goats not ſacrificed to Minerva. 229. e
Goſlings ſtung with a nettie die vpon it. 301. b. greedie feeding the bone of goſlings. *ibid.*
Goſſampine trees bearing cotton. 363. e. f
Goggle eyes dim-ſighted. 334. b

G R

Gray eyes in the darke ſee better than others. 334. b
Grates how they eſcape the hunter. 218. g
Graines in fruit different. 447. e
Graine. See corne.
Graine of three ſorts eſteemed by the Greekes: Dracontias, Strangeas, Selmuſium. 360. g
Grafting how it is. 517. a
Grafts ought to be taken from the top of the tree. *ibid.* e
Grafts how to be taken from boughes that beare well. *ibid.*
how they are to be ſet. *ib.* how they are to be thwighted. *ibid.* not to be ſharpened in the wind. 518. b. they are to be ſet before the moone is in the full. *ibid.*
Grafting in ſcutcheon. 519. e. f. 520. g. b. Rules to be obſerued in grafting. 521. c
Grafts of cherrie trees how to be vſed. 518. d
Grafts of vines how to be vſed. 519. b
Grafts of wild trees will not grow in the tame. 519. e
Grafting more pleaſfull than ſowing of ſeeds. 522. g
Grafts of oliues when they are to be ſet in dry places. 522. g
Grafts of oliues how they are to be vſed in Barbary. *ibid.* b
Grammarians who excellent. 174. l
Grapes how they are preferred from pullain. 420. k
Grapes that looſe the belly. 423. a. grapes that bind the belly. *ibid.*
Grapes Echoledes, why ſo called. *ibid.*
Grapes de-guard. 440. i
Grape bunches how to be gathered for guard. *ibid.* m
Grapes of diuerſe ſorts. 45. e
Grapes how preferred. 406. g
Grapes dried in furnaces. *ib.* grapes ſodden in mine muſt. *ib.*
Grapes hanging all winter on the vine till new come. 406. b
Greeke grapes of Corinth. 407. c
Grapes Varians, and why ſo called. 408. g
Grapes Inuention might be called the ſober grapes. *ibid.* i
Grapes of the free towne Pompey. 499. d
Grapes Tiurtime. *ibid.*
olive Grapes. *ibid.*
Grapes Vinaciola. 409. k
Grapes Capciades. *ibid.*
Grapes Bucconiatas. *ibid.*
Grapes Tarrapia. *ibid.*
Grapes Pharia. *ibid.*
Grapes Prusiſine. *ibid.*
Grapes ſreptos. *ibid.*
Grapes Thafia. *ibid.*
Grapes Mariotides. *ibid.* grapes Lagea. *ibid.*

Grapes Bimamma. 410. g
Grapes of Spaine. *ibid.*
Grapes Eſtaria. *ibid.*
Grapes Bumſti. *ib.* Ounce grapes. 410. b
Grapes Aegiptian. *ibid.*
Grapes Rhodian. *ibid.*
Market grapes. *ibid.*
Grapes Cinerea. *ibid.*
Grapes Scirpula. 416. m
Grapes Egyptian. Thafia, Aethalos, Pence. 415. f
Grashoppers how they liue. 325. d. their ſundry kinds. *ibid.* d. e. they be dim-ſighted. 326. g. they may be reduced into three kinds. *ibid.* they be meat to ſome nations. *ibid.* when they ſlie. *ibid.* they be not enery where. *ibid.* they haue wings onely without mouth. *ib.* f. where they be muſe. *ibid.*
of Greace. 344. k
Greekes full of lies and vanities. 207. d
Griffons defend golden mines. 154. b. what birds. 296. k
Grind ſtones and whet ſtones for fiſhes. 595. c
Griffles broken will not cloſe together. 345. b. more of griffles. *ibid.*
Grounds ouergrowne with buſhes how to be clenſed. 505. b
Ground how to be trenched. 559. a. b
to choſe ground, rules inſallible. 505. b
Grounds which are principall. 504. k
Ground muſt be bettered by ſowing ſome graine in it. 508. b
Ground burned by cich-peaſe. *ibid.*
the Growth of man or woman. 345. b

G V

Guarlands giuen to victors in the foure great games. 457. a
a Guild inſtituted by Romulus ouer corn fields. ſeege. 549. c
Guarlands of corne-eares firſt knowne at Rom. 438. l
Guelded apples. 338. b
Gueldings caſt not their teeth. 287. f
Sea-gulls where they breed. 391. e. d
Gums of diuers ſorts. 424. g
Gum Arabicke. *ibid.*
Gum of Iurie. *ibid.*
Gum Colophonian. *ibid.*
Gum Spagus. *ibid.*
Gum Cyprian. *ibid.*
Gut Longaon how it maketh creatures inſatiable. 343. b
of the Guts. 342. k. l. m. 343. a. b

G Y

Gymnoſophiſtes, certaine Philoſophers of India. 155. a
they can looke againſt the Sun. *ibid.*
Gymnetes, people liuing about a hundred years. 147. a
Gynacocrasmeni, people why ſo called. 118. b

H A

H Adroſſheron. 364. k
H Adrobolon what it is. 263. m
Haddocke, a kinde of coad-fiſh. 243. c
Haile how it is engendred. 29. b
Halcyones the name of birds in their hatching. 287. e
Haliantes. 8. l
Haliactos, what kinde of eagle. 272. g. ſhee trauiſeth her young ones to looke againſt the Sun. *ibid.* i
Haſe our time ſpent in ſleepe. 183. a
Halcyon

of Plinies Natural History.

Halcion daies. 287. d
Halcions of diuerſe kinds. *ibid.*
Halcions when they breed. *ibid.*
Halciphlos, a kinde of Oke. 450. d. unfortunate. *ibid.*
Hammoniaccum. See Ammoniaccum.
Hanno baniſhed for taming a Lion. 203. b
Hanno his booke and commiſſion to ſurvey the compaſſe of Africke. 91. b
Hanno his navigation. 33. a
Hangings of exceeding great price. 228. k
Happie is no man in this life. 176. b
who was deemed moſt happie by the Oracle. 180. b
Hares admit ſuperfecundation. 303. d
Hare ſtarre Fiducala. 588. g
Harrowing how it is performed. 579. f
Hares ſleepe open eyed. 335. a
Hard and ſtiffe harted folkes are accounted brutiſh. 340. i
Hardiſhewes if they go ouer a cart-trail, ſtreight die. 244. g
Hares in ſome places haue two liues. 341. c
being then tranſported they loſe one of them. *ibid.*
Hare will neuer be fat. 344. k
Hares admit ſuperfecundation or double conception. 232. k
Hare the hairieſt creature. 347. a
Hares how their age is knowne. 232. i. both male and female. *ibid.*
the ſea-hare a venomous fiſh. 191. b. 264. i
Hares very fruitful. 232. k
Hares haue very good ſea to make cloth. *ibid.*
Harmonie of Planets. 14. k
Harts ſhewed the uſe of the hearbe Diſtammus. 210. k
Harts and Hinds are cured by the Artiſchoke. 211. c
Harts. See Stags. 214. g. b
Haſtic apples. See Apples Muſtea.
Haſelluns. See Filbards.
Hautins. See Straw.
Hawkes, 272. f. their kinds. 274. k. where they breed on the ground. *ibid.* l
Hawkes and men catch birds together. 274. m
and part the prey equally. *ibid.*
of Haire. 332. i. k
Haires and ſtones engender in mens bladders. 344. g
Haires out of a thicke ſkin are groſſe and hard. 347. a
they grow long vpon Horſes and Lions. *ibid.*
ſwallowing downe of an Haire the death of Fabius a Roman Senatour. 159. e
Haires of Corniſh long on their cheekes. *ibid.*
Hairie men more lecherous than others. *ibid.*
Haires come not ſometime without the helpe of art. 347. b
Haire of the head in men groweth moſt. *ib.* it groweth not at the ear end but from the root. *ibid.*
Haire groweth vpon dead bodies. 34. b
Haire beaſts, except the aſſe and the ſheepe, are troubled with lice. 329. b
Haire white. 332. b
HE
Heads adorned with creſts, tufts, and combes. 331. a
Heads cut from the bodies licked vpon their owne blond. 242. b
Heart in man and beaſt how it is ſituate and made. alſo to what uſe it ſeruieth. 340. g. b
Heart of fiſhes pointeth vpon to the mouth. *ibid.*

Heart firſt formed in the mothers wombe. 340. a. it diſturbeth. *ibid.* b. it pointeth like a lining creature by it ſelfe. *ibid.* b. the treaſure of life. *ibid.* the ſeat of the mind and ſoule. 340. b
Heart cannot abide paine. *ibid.* paine of it bringeth preſent death. *ibid.*
Hearts, they that haue little, are valiant. *ibid.*
Heart of a man how much it groweth yearly. 340. f. how long it groweth. *ibid.* when and how much it decreaſeth. *ibid.*
Hearts of ſome men all hairie. 340. i
Hearts hairie ſhew ſtrange and valorous men. *ibid.*
Heauen full of portraits. 180. b
Heauen and World all one. 1. c
Heauen in the motion thereof an harmonie. 2. b
Heauen called Cælum, and why. *ibid.*
Heauen diuided into ſixteen parts by the Tuſcans. 7. a
See more in World.
Hebre river. 53. b
Hecuba her tombe and name thereof. 79. a
Hedgehogs how they engender. 302. l
Hedysmata. 381. d
Helix of three ſorts. 481. a
Helix, a kinde of Tule. 480. k
Hellenes, whence they tooke their name. 76. b
the three names Homer gaue vnto them. *ibid.*
Helen, a Meteor ſo called. 181. l
Heliotropium turning alwaies with the Sunne. 20. b
Helleſpontias, the name of a wind. 23. b. the time of it. *ibid.*
Helleſpont, ſometime a land. 40. l
Helix, a kinde of Willow or Oyſter. 485. i
Heliotropium the hearbe, a direction vnto the Husbandman. 593. f
Hemeris, a kinde of Oke. 459. b
Heneti, from whence the Venetians. 175. b
houſe-Hens ſeeme religious. 292. m
Hens or Pullets great layers. 298. i
Hens bring vp Ducklings. 299. e
Hens which be kindly. 300. g
grig-Hens. *ibid.* b
Hens and Pullets firſt crammed. 297. a
Hens fat how they are knowne. *ibid.* b
Hepheſty, mountaines in Lycia. 47. c
Hepſema, what it is. 416. l
Hercules pillars. 48. i
Hercules his altar. 96. l
Hermosimus Clazomenius his ghoſt. 184. i
Hercules his ſphere, the planer Mars ſo called. 6. g
Hercules Ruſſicellus, who ſo called. 166. l
Hercynia forreſt. 455. e. the wonderfull trees that are there growing. 455. f
Marcus Herennius a Counſellor ſtruck with lightning in a cleare day. 253. f
Hermaphrodites. See Androgini.
Hermiones. See Menuever.
Heroum, what it is. 273. f
Herophilus, a renowned interpreter of Phyſicke. 345. b
Herons of three ſorts. 301. l. they engender with great paine. *ibid.* and lay with as much. *ibid.*
Heſperius, a mountain in Aethyopia. 47. c
Hexametre verſe, who firſt deuſed. 189. c

The Table to the first Tome

H I	Horologies how devised.	191.b.c.d
Hiera an Island of <i>Ætolia</i> , neere <i>Italy</i> . And the burning thereof.	Horses wild.	200.g
Hiera Island.	River-Horse his description and properties.	209.f
Hierapolis citie.	invented Phlebotomie or blood-letting.	210.i
Himantipus, what kind of birds	Horse of <i>Cæsar</i> Dictator.	221.a
Himilco his navigation.	Horse entombed by <i>Augustus</i> <i>Cæsar</i> .	ibid.
Hinds, their nature and manner of breeding.	Horses entombed at <i>Agrigentum</i> .	221.a
Hinds and stags how they engender.	a Horse loued by <i>Semiramis</i> .	ibid.
Hinuti, what they be.	a Horse reuenge his masters death.	221.b
Hinu, what it is.	Horse furniture and harness who first inuented.	189.c
Hippas, a river in <i>Pontus</i> , it bringeth downe bladders,	Horses loath to couer their dams.	ibid.
330.l. wherein it enclosed the flie <i>Hemerobion</i> .	Horse fight, who first deuised.	189.c
Hipparchus his <i>Ephemerides</i> what they contained.	Horses of seruice vsed to daunce to Musicke.	221.c
his intention concerning the Eclipse of the Sunne and Moone.	their kind affections to their masters. ib. their docilitie.	ibid.
Hipparchus his opinion of the stars, his praise, and opinion of the soule. 16.e. he findeth out a new starre rising in his time.	ibid. their perceiuaunce. ibid. d. desiring of praise. ibid. e. their age. 222. b. their breeding.	ibid.
Hipparchus.	Horses where they be worth a talent of gold.	148.b
Hippae, a kinde of crabfish.	Horses subiect to many diseases.	222.m
Hippeus, a kinde of Comet.	Horses age how it is knowne after their shedding of teeth.	358.i.
Hippocrates honoured like <i>Hercules</i> . 17. h. he foretold of a pestilence.	Horses and men alone haue teeth of one lenell.	337.a
Hippocentaur borne in <i>Thessalie</i> .	Horses teeth wax white by age. 338. b. their age knowne by their teeth.	ibid.
Hippomanes, what it is.	a Horse where he is worth a talent of gold.	148.b
Hippophastr, good to purge the body for the falling sicknesse.	Horses, where they are thought to haue no gall.	341.d
Hippoglossian.	Hordearij, who they be.	561.c
Hippi, a sort of Lobsters.	Horminum, a kinde of graine.	565.b
Hiria, certain families, wherein they be all witches. 155. c.	Hortensius wept for the death of a Lamprey.	261.d
Hispalis, a Colonie.	Hornets are not uniforme. 322. b. they die when Winter is come.	ibid. c
Hines of <i>Lanterne</i> hornes.	Hornes of a Hart kept as monuments in <i>India</i> .	324.a
drinking of Hines. 317. b. what must be left for the Bees.	Hornes of <i>Atleon</i> and <i>Cippas</i> fabulous things.	331.b
ibid.	Hounds. See dogs.	263.c
H O	Hound-fishes their nature.	554
Holmes, three at <i>Tiber</i> very old.	a House in the country how to be seated.	554
a Holme tree of a wonderfull age.	Houfelecke medicinable for all maladies incident to corne.	565.e.
a Holme tree of a monstrous bignesse.	Houfes of what beasts will heale being cut.	351.a
a Mast-Holme tree of two sorts.	of Houfes a discourse.	ibid.
Holothuria, fishes of the nature of plants.	H V	
Holydaies unto <i>Vulcan</i> .	Huholes or Houps gon so soon as they haue hatched.	284.i
Homers <i>Ilias</i> couched within a nut-shell.	a filthy bird.	287.a
thicke Hony nothing commendable.	all Husbandry censured by the Censors.	550.i
thin Hony will not thicken.	to be a good Husbandman, a credit.	ibid.
Hony engendresh in the aire. 317. b. when it is engendered.	Husbandrie in old time, by whom it was performed.	551.f
ibid. of what mater. ibid. how it is corrupted. ibid.	by whom in later daies.	552. b
it is diuers, according to the tokens of good hony. ibid.	Husbandrie, a Prince-like profession and studie.	ibid. i
regions.	Husbandry studied by what kings.	552.i
a Honey-combe eight foot long.	Husbandry professed of what warriors.	ibid.
Honey-combes best about Sunne-lead in Summer.	bookes of Husbandrie written by <i>Mago</i> , saved by the Senate of <i>Rome</i> , and translated into <i>Latine</i> by <i>D. Syllenus</i> .	552.k
Honey when it is most gathered.	Husbandmens outworkes after the fall of the leafe.	589.e
Honey in some sort hurtfull for Bees	the Husbandrie in <i>Egypt</i> about sowing and reaping of corne.	577. d
Hondearia, a kind of Plums.	Husbandmens worke in Winter Interuall, what they be.	590. g. b.
Honey apples. See apples <i>Melimela</i> .	590. g. b. their workes in the Interuall of the Spring, what they be. 591. e. their workes in the Spring according to <i>Cato</i> .	ibid.
Honey who made first.	<i>M. Varro</i> , a writer of Husbandry.	553. b
Hornes of great bignesse.	Husbandry workes presently upon the Spring <i>Æquinox</i> .	593. b.
How they stand, and to what vse they are put.		
what beasts haue hornes.		
Hornes of sundry shapes.		
Hornets, whether they haue stings or no.		

of Plinies Naturall History.

Husbandry workes in the Summer Solstice.	594	Infants borne before the seneth month, neuer live. 158. k
Husking of corne.	565. c	knowne oftentimes to want the passages of nostrils and eares. 336. l
Husbandry after the Summer Solstice.	594. i	Infants toothlesse, not to be burned in a funerall fire. 164. l
Husbandrie at the entring of Autumn.	605. d	Infants how they lie in the mothers wombe. 304. i. they sleepe much and dreame, how they be formed there. how they come forward afterwards. 164. h
H Y		Inoculation. See Graffing in <i>Scitcheon</i> .
Hyades, what starres, and why so called.	562. d	Inning of corne after sundry sorts. 602. l
Hyane change their seils.	212. i	Insects how winged. 326. i. how they be offensive. ibid.
Hyades, starres called otherwise <i>Sacula</i> .	19. e	Insects do breath and sleepe. 311. c. none haue teeth. 327. a
Hybandia Island.	40. k	having legs, go not directly. ibid. how engendered. 329. d
Hybrida, what they be.	232. e	what they be & why so called. 310. i. they haue no bones. 345. a. they haue no taile save onely scorpions. 327. a
Hyle, a great writer of <i>Auguria</i> by the nature of birds.	277. c.	Inuents of sundry things. 187. c. & deinceps.
Hypelate.	496. c	I O
Hyphear, what it is.	476. g	Ionian characters first used generally. 190. k
Hyphear, 496. c. the properties it hath.	ibid.	Jordan river, the praise thereof. 100. m. & c.
Hyperborei, people so called: blessed, liuing long.	84. i	Louis Barba, a plant good for arbores in gardens. 468. k
strange reports of them.	ibid.	I R
I A		Ireland the description thereof. 86. k
Iacke Daw. See Chough.		Irio, what kinde of graine. 565. b
I B		I S
Ibis inuented the clyster.	210. k	Isidorus, a writer. 48. i
Ibis destroy serpents. 284. m. where they be blacke, where white.	287. b	Isidos, <i>Plocamos</i> . 401. i
I C		Isis, the Planes <i>Venus</i> . 6. i
Ichneumon, a kinde of Waspe.	322. b	Isocinnamum. 374. g
Ichneumon, the nature of it. 208. k. his combat with <i>Aspis</i> .	209. a	Islands that newly appeare out of the sea, and the reason thereof. 39. f
ibid. he killeth the Crocodile.	145. a	when Islands haue sprung up. 40. g
Ichthyophagi, people that feed of fish, and swim naturally in the sea.	145. a	what Islands haue ioined to the maine. 40. k
I D		Islands in the <i>Gaultes</i> Ocean. 86. i
Ides of March fatall to <i>Cæsar</i> .	591. b	Islands in the Ocean. 88. k
Idoll of the Meremaid where honoured. 103. b. the names thereof.	ibid.	I T
I L		in Italy lightnings be common, and why. 25. d
Ilex. See more in Holme.		I V
the Mast of <i>Ilax</i> .	458. m. 100. i	Iuba, a king memorable for learning. 92. i
Ilium and all the tract thereabout sometime main sea. 39. e		Iugurum. See <i>Acce</i> .
I M		Indicall court of <i>Capitol</i> masters, who first inuented. 189. a
Imania, a mountain.	154. b	In iubes, what fruit. 437. f
Imagines famous.	175. d	Inucus <i>Odonatus</i> . See <i>Squinnath</i> .
Imperfections incident to corne sowne.	574. g. b. i	Imipers. 489. a
I N		Iuno the Planet <i>Venus</i> . 6. i
Incendiaria, a bird, vnder 277. b. the reason of the name.		Iuno <i>Lacinia</i> . 48. g
ibid.		Impiter Planet his colour. 13. c. to him lightnings are attributed. 14. g
Inense. See <i>Frankincense</i> .		Impiter <i>Lycas</i> , and his chappell. 75. b
India full of strange and miraculous things.	155. d	Impiter <i>Olympius</i> , and his chappell. 74. i. famous for the games there used. ibid.
India, by whom discovered. 152. b. the force of that nation.	ibid.	Impiter <i>Castiopeus</i> his temple. 79. d
ibid. the long continuance of their kingdome.	125. c	Julius <i>Cæsar</i> Dictator his singular parts. 168. k
fixtie rivers therein.	361. b	Iurie renowned for Date trees. 384. m. the description thereof. 100. l. how diuided into ten gouernements. ibid.
Indian trees unnamed.	126. k	Iurie unwilling to grow in <i>Asia</i> . 480. h. employed in salernities to <i>Bacchus</i> . ibid. i. an enemy to other plants. 480. i
ahundred & twentie nations of India lacking twain.	126. k	male and female. ibid. k. both male and female of three sorts. 480. k
the nation of Indians, described beyond <i>Nilus</i> .	155. d	Iurie, <i>Nysa</i> , <i>Bacchica</i> . ibid. l
India bringeth forth all things bigger than other.	155. d	Iurie <i>Erythranos</i> . 480. l
the reason thereof.	ibid.	Iurie <i>Chrysocarpus</i> . ibid.
Indians subiect to no diseases. 155. c. engender with beasts.	157. a.	Iurie wood of a wonderfull propertie to trie wines delaid with water. 481. e. Iurie garland the first. 456. m
Indian sea fishes bigger than others.	235. b. c	<i>Kernis</i>
Indus the river. 106. l. receiuing into it fixtie other rivers.	127. c	
ibid. more of this river.		

The Table to the first Tome

K E

K Ermits in fruit different. 447.e
of the Kell in man and beast. 343.c
K I
of Kidnies. 343.d.e
Kidnies are in all foure footed beasts that bring their young quick. 343.d
Kindnesse naturall examples thereof. 174.g
Kings fifters. See Halciones.
Kine and Bulls how they engender. 302.m
King of Taprobane how he is chosen. 130.m. he may be depofed, condemned, and put to death, the manner of his execution. 131.a.b
King of bees described. 318.m. exempt from labour. 318.m
Kinning in an egge, what it is. 298.h
in Bawfes, Kine haue bigger voices than Bulls. 353.e
Kites reckoned among Hawkes. 275.e. their nature. 275.f
they taught the use of the Helme in the ship. 275.f
are troubled with the gout. 418.k
Kifling of women by kinsfolke upon what occasion. 418.k
K N
Knees being wounded in their hollowes, bring present death. 350.i
of Knees a discourse. 489.b
Knives in timber. 489.b

L A

L aburnum, what manner of tree. 468.k
Labeones who they were. 336.l
Laborie in Campane, a most fruitful tract. 567.f
Labrusca, bastard wild Vines. 538.g
Lactie, the best Casia or Canell. 373.e
Lacties placed next to the bag of the stomacke. 342.l
Lacydes accompanied with a Goose. 280.k
Ladanum the best. 370.k. the price thereof. 370.g
Ladanum how it is gathered. 370.g
Ladanum of two kinds. 370.g
Lestrigones, monsters of men. 154.g
Laertes, a king mucked ground with his own hands. 507.b
Lagopus, a bird why so called. 296.h
Lalifones, what they be. 224.i
Lama what tree. 369.e
Lambes named Cordi. 226.f
Lambes how to be chosen. 226.f
Lampades, flaming torches in the skie. 17.b
Lampadius, a kinde of Camel. 15.f
Lampido, the only woman knowne to haue been daughter to a king, a kings wife, and mother to a king. 176.l
Lampries in France how they are marked. 248.i
Lamprey, a fish. 245.b
Lampries of fresh water. 246.g
sea Lampries their nature. 248.b
Lampyrides what they are. 593.c
Lanata, what apples. 438.g. why so called. 245.e
Lanati, a sort of Pike. 245.e
Land in the country made distinction of states at Rome. 550.m

Land worth fortie denary, the short cubit. 581.d
Land Mediterranean fittest for fruits. 501.c
Land how much assigned by king Romulus to his subjects. 549.d
Land of whom to be bought. 553.e
little Land well tilled. 553.m
Lands may be overmuch tended. 555.b
Lanists of Lacedaemon his swiftnesse. 167.a
Lanterne, a sea fish. 249.d
Laodicea a cisse, the description thereof. 107.a
Larch tree. 462.l. the timber and the liquid rosin thereof. 465.b
ibid. how it is drawne. 465.b
Larch tree female. 487.b
Larch tree of great length. 489.d
Lares, a temple to them: neere to which an altar erected to Orbona. See Orbona.
Large space between the stomacke and the paunch, is cause of more hunger. 342.l
Laves who first inuented. 187.e
Lawrea, the leafe of Lawrell. 454.g
Lawrell tree not smitten with lightning. 27.e
Lawrell groves, why called Triumphales. 454.g
Lawrell a medicine for the Romans. 211.d
the mad Lawrell. 495.d
Lawrell tree how it was employed at Rome. 452.i
Lawrell, Delphicke, Cyprian, Musiacae. 452.k
Delphicke Lawrell described. 452.k
Cyprian Lawrell described. 452.k
Lawrell Tinnus or wild Lawrell. 452.k
Lawrell Augusta or Imperiall. 452.l
Lawrell Baccaba. 452.l
Lawrell Triumphall. 452.l
Lawrell Taxa. 452.l
Lawrell Spadonia. 452.m
Lawrell Alexandrina. 452.m
Lawrell Idea. 453.b
Lawrell, token of peace. 453.b
Lawrell much honoured at Rome, and why. 453.c
Lawrell fairest upon Parnassus. 453.c
Lawrell not smitten with the lightning. 453.d
a Lawrell Chaplet used by Tiberius Caesar against lightning. 453.d
Lawrell why used in triumph. 453.d
Lawrcola, 453.a. described. 232.h
Lawrices, young Rabbits or Lenerets. 232.h
Lawrus, the only tree in Latine that giveth name unto a man. 454.g
who laughed the day that he was borne. 164.m
Lax, a fish. 243.a
L E
Lead, who first found out. 188.l
League who first deuised. 189.i
Leape year. 66
Learned wits honoured. 171.f
Leanes of Aspen tree neuer hang still. 514.f
Leanes that alter their shape & form upon the trees. 470.b
Leanes of some trees turne about with the Sunne in the Tropicke of Cancer. 407.i
Leanes of the trees how they be framed aboue and beneath. 470.k
Leanes of trees distinguished by their bignesse, forme, and substance. 470.l.m
Leanes

of Plinies Naturall History.

Leanes distinguished by other qualities, and their order. 471.a.
Leanes of trees, good fodder. 471.b
what Leanes are apt to shed, and which are not. 469.d
a Philosophicall discourse touching the cause of shedding or holding Leanes. 469.e.f
Leanes of what trees hold their colour. 470.g
Lectos, a promontory in Trou. 471.f
Ledon. 370.i
Lemnos Island. 378.g. their manner. 370.i
Length of the legs and necke, answerable for the proportion in all creatures. 339.e
Lentill where and when to be sowne. 569.e
Lentills of two kinds. 569.e
Lenti and Lenes in Latine whence deriued. 448.k
Lentis berries preferred. 550.b
Lentils, why so called. 550.b
Leocornus, what kind of beast. 206.b. and what of nature. 212
Leocornus rebuked Alexander the Great for burning too much Frankincense. 367.f
Leontophonus, what beast. 217.e. and why so called. 367.f
Leopards how they lie in wait. 308.g
Leptorhagus, what grapes. 495.m
Lepo or Mole, a kinde of fish. 249.c
Letters or characters who inuented. 187.f
Lewaines. 566.h.i. the nature thereof. 334.g
Leuci, kinde of Herons with one eye. 398.b
Leucocomum, a kinde of Pomegranats. 398.b
Leucogon, a place. 568.h. it yeeldeth chalte to make white frumetic, and a great renenue yearly. 340.i
Leucosia Island sometimes ioined to the promontory of Syrenus. 340.i
L I
Libanus mount, the description thereof. 102.i
Liciniani, why so called. 163.a
Licinius Stolo condemned by vertue of his owne law. 551.d
of mans Life, the tearme uncertaine. 180.l
Life short, a benefite. 183.b
Licorne. See Monoceros.
Lignum, a fault in Cytron wood. 396.h
Lightnings attributed to Iupiter. 14.g. the reason thereof. 396.h
ibid. presages of future things. 396.h
Lightnings, seldome in Summer or Winter, and the reason. 25.c. in what lands they fall not. 396.h
and wonders thereof. 25.e. diuerse obseruations touching them 26.g. raised by coniuuration. 396.h
of lightning. 396.h. it is scene before the thunderclap is heard, and why. 396.h. what things are not stricken with lightnings. 27.e
Ligites, the seat of the bycatch. 341.a. strong grow and full of pipes. 341.a
Limosa, what fishes. 243.c
Lime at the root of Cberrie-trees hastens their fruit. 546.k
Limning. See Painting.
Linden trees differ in sex. 466.i. their fruit no beast will touch. 466.i
the Linden tree yeeldeth fine panicles for cordage. 466.i
the timber will not be worme-eaten. 466.i
Linnen fine cloth whence. 80.l
Linner very docible. 293.a
Likewis of children to parents, grandfire, or others. 160.m

161.a.b. the reason in Nature. 181.c
Likewis of one man to another diuerse examples. 161.d
& deinceps.
Lions of the right kinde how they be knowne. 200.i.k
Lions bones will strike fire. 344.m
Lions how they will walke. 350.k
Lionesse lecherous. 200.k
Lionesses engender with Pardes. 200.k
Lion tealous of the Lionesse. 200.k
Lionesse, how oft shee beareth young. 200.l. and the manner thereof. 201.b
of Lions two kinds. 201.b. their nature and properties. 201.c
Lions long lived. 201.c
Lions crucified. 201.c. and why. 201.d
Lions gentle to those that submit themselves. 201.d
Lions spare women and babes. 201.d
Lions entreated with faire language. 201.e. their disposition knowne by their tailed. 201.f. their generositie and magnanimitie. 202.g. whereat they be affrighted. 202.i
their diseases and remedies. 202.i
Lions first shewed at Rome in the cirque. 202.k. how they be taken. 202.m
Lions yoked and put to draw at Rome. 202.m
a Lions thankfulness. 203.d
Lions die with tasting Leontophonus. 203.d. or drenched with the urine. 217.f
of Lips. 336.i
Liquor falling from heauen. 316.m. how good. 336.i
Lizards their nature. 218.k
Lisimachus strangled a Lion. 202.m
Liver lish on the right side. 341.b
Livers found in sacrifice without the head or fibres. 341.b
seene with twaine. 341.b. what they foreshewed. 341.b
Livers in sacrifice found inward, to the number of six. 341.b
Liver found cut, presageth ill hap. 341.d
Liver receiveth blood from the heart. 341.d
Liver of Mice and Rats groweth at midwinter. 342.g
bath so many fibres as the Moone is daies old. 342.h
Livers continued in salt a hundred yeares. 342.h
who Lined a long time. 180.l
Linia Augusta made trial by an egge whether shee were with a boy or a girl. 209.d
Linia Drusilla Augusta presented with a bay branch in a Hens bill falling into her lap. 453.e
Lizards tender skinned and foure-footed. 336.b
Lizards how they engender. 302.m. they deliner their eggs at their mouth. 305.a
L O
Lobe, the stalkes of Miller. 558.i
Lobsters want blond. 252.i. they cast their coats in Spring. 270.g
ibid. diet for woe. 270.g
Lobsters their nature. 252.f
Locry, a free state with the description of their country. 73.c
Locupletes (i. Rich men) why so called. 550.i
Locusts how they utter their voice. 333.a
Locusts and Grasshoppers haue no eyes. 334.g
Locusts lay eggs in Autumn. 327.b. their young creep on their wings. 327.c. the mother of them dieth at the bringing forth of her young. 327.c. they can kill serpents. 327.d
Locusts in India three foot long. 327.d. they are caried away with wind. 327.d. they lie many daies without rest. 327.d. foresee

The Table to the first Tome

foresee a famine. *ib. e.* darken the sunne with their flight
ibid. burne come with their blast. *ibid.*
 Lollia Paulina how shee was adorned with pearles. 256.k
 the price of them. *ibid.*
 Lomentum. 568.m
 Lora, what it is. 417.e
 Loreum, a place. 454.g
 Lota tree Capillata, and why so called. 495.a
 Lote trees of long continuance. 494.m. 495.a
 Lotophagi, people. 397.b
 Lots taken for a god. 4.k
 Lotus tree in Assyria. 397.a. the description thereof. *ibid.*
 the fruit. *ibid. b.* it serveth for meat and drinke. 397.c
 Lotus the hearbe. *ibid.*
 Lotus tree wood. *ibid.*
 Lotus of Egypt. 397.c.d. the strange nature of the head
 and flower. *ibid. e.* the root feedeth hogs. *ibid. f.*
 Lotus tree why it is regarded much at Rome. 476.k. the
 description thereof and the uses. *ibid.*
 of the Louisa disease, Pherocides died. 184.g

L V

Luceia acted on the stage a hundred yeares. 181.c
 Lucernum, a towne of the Latines. 53.d
 Lucerna, a shining fish. 249.d
 Lucifer, why so called. 6.i
 Lucina, the name of Diana, and whereupon. 494.m
 Lucini, men so called. 335.e. why so called. *ibid.*
 Lucius Martius. 48.b
 Lucius Cossinius turned from a woman to a man on the ve-
 ry marriage day. 158.h
 Lucius Sylla unworthily named Felix. 177.d
 Lucius Metellus onely suffered to ride in his coach unto the
 Senat. 138.b. thought most happie. *ibid. g.*
 Lucius Apronius his sonne how far he was. 334.l
 Lucius Opimius and Quintus Fabius, when they were
 Consul, an arch seen about the Sunne. 17.e
 Lucius Portius and Marcus Acilius when they were Con-
 suls, a round circle about the Sunne. *ibid.*
 Lucullus resisted by the muddie slime Maltha at Samosa-
 tis. 46.m
 Lungs are but in few fishes. 335.e
 Lungs that are little cause the body to be swift. 341.a
 Lupi, a sort of spiders. 323.d. they spin not. *ibid.*
 Lupine a direction to the husbandman. 594.g
 Lupine meat medicinal. 272.g
 Lupines not easily mowed downe. 571.c
 sympathie betwixt Lupines and the Sunne. *ibid. d.* wonder-
 fully affectionat to the earth. *ibid. e.*
 Lupines sow themselves. *ibid.*
 Lupines sowing is as good as soile or compost. 571.f. 572.g
 Lupines steeped mens meat. *ibid.*
 Lupines how to be kept. *ibid.*
 Lupines profitable to be set in ground. 508.g
 Luca, bones what they be. 51.f
 Lustraria, whence it hath the name. 88.i
 Lustraria, the description thereof. 246.b
 Luterius, a kinde of Barble. 259.a
 Lutense, a kinde of Pelagic purple. *ibid.*

L X

Lyncurium what it is. 217.f
 Lycus river. 268.b
 Lycare what it is. 579.f

Lestrigones, monsters of men.
 Lycion, what composition it is.

154.g.
 362.b

M A

Macrobij, and other people lining long. 156.l.m
 Macedonia the description thereof. 77.a
 Macer. 362. the medicinable vertue of the rind. *ibid.*
 Machlis, what manner of beast. 200.g
 Macius Island sometime joined to Euboea. 4.i
 Macrinus Ustus how he used to bleed. 346.g
 Maander river where it now runneth by goodly meadows,
 in times past was all sea. 39.e. the description thereof.
 108.b
 Menander how he loved his studie. 172.m
 Magnesie, the description thereof. 36.m
 Magnesia Island. 40.k
 Magna, what it is. 383.c
 Maid child in Rome became a boy. 158.b
 Males in all beasts stronger than females. 352.k. some are
 excepted. *ibid.*
 Males have more teeth than females. 338.g
 Maladies and death consumes blond. 346.i
 Maldacon. See Brochos.
 Malacha. See Brochos.
 Malenus a mountain. 36.g
 Maladies of trees what it is. 541.c
 Malis bonis what it meaneth. 555.d
 Malobathron, a plant. 378.l. the description thereof. *ibid.*
 and the kinds. *ibid. m.*
 Malobathrum the leafe. 379.a
 Malt made stronger drinke in old time. 428.b.i
 Malt, a kinde of mud so called. 46.m
 Maltha, a kinde of mud in a pond of the citie Samosatis.
ibid. the strange nature of it. *ibid.*
 Man how long he groweth. 345.b
 Mans brest onely broad and square. 343.e
 Man onely bleedeth at the nose. 346.g
 Man onely two footed. 349.b
 Man onely hath a cannell bone, and shoulders. *ibid.*
 Man onely hath palmes on his hands. 350.l
 Man in Egypt hath foure eies. 354.b
 Man for his proportion hath most braine. 352.b. hath more
 braines than woman. *ibid.*
 Man his braines onely panteth and breatheth. 333.a. they
 are not sciled before he speaketh. *ibid.*
 Man onely wanteth power to shake his eares. 333.b
 Man onely hath face and visage. 333.d. his forehead de-
 clareth his natyve. *ibid.*
 Man onely borne without teeth. 337.e
 Man, than whom nothing more proud and wretched. 4.m
 Man, the best gift he hath bestowed upon him, that he can
 rid himselfe by death out of his miseries. 5.a
 Mans flesh sacrificed and eaten. 154.g
 Man to man a god. 4.g
 Man compared with other creatures. 192.i
 Man hath no certaine time to abide in the wombe. 258.k
 Mankind more inordinate than other creatures in the all
 of generation. 302.m
 the Mami-foot fish Ozana. 250.m
 Manilius wrot of the Phoenix in Arabia, dedicated unto
 the

of Plinies Naturall History.

the Sunne. 272.b. the age of this bird and manner of
 dying. *ibid.* hence the young Phoenix is bred. 271.c
 Mandri people women bring forth children at seven yeares
 of age. 157.a
 Manlius Capitolinus, first that was rewarded with a mu-
 rall crown. 170.k. his deeds and rewards. *ib.* his praise. *ib.*
 Manna, what it is. 376.b
 Manna Tauris. 367.e
 Mantichora, what kinde of beast. 206.k. resembleth mans
 language. 222.l
 Maples of many kindes. 456.k. the wood commended for
 fine graine, and scructh in curious workmanship. 466.l
 Maquerels. 243.e
 Cu. Martius first devised to cut out arbors at Rome. 359.b
 Marcellus Egrinus brought plain trees into Italie. 358.m
 Mareolis Lybia bordering upon Egypt described. 95.d
 Mares of the nature of Hermophrodites. 352.i. scene they
 were at Rome. *ibid.*
 a Mare in sole wan the prize in the Olympian race. 304.g
 Mares better than stallions in war service in Scythia. 222.l
 Mares conceive by the wind. *ibid.*
 Mares how they be brought to admit Asses to coner them.
 303.e
 Mares with sole labour as well as before. 303.f. they steale
 their sowing many times. 304.g
 Margarides, Dates. 387.b
 Margo, a kinde of Limestone. 505.d
 Mario a fish of pleasant tast. 243.b
 Marioram oyle the best. 382.g
 C. Marius commended by Sylla Felix for building a man-
 nor house in the countrie. 554.i
 Marmosets where bred. 106.g
 Marmotanes their nature. 226.m
 Maiorina, what Olines. 432.g
 of Marrow. 344.l.m
 Marrow neuer found but in hollow bones. 344.l
 Marrow of the Vine tree and nature thereof. 326.i
 Marrow of the backe descendeth from the braine. *ibid.*
 Marrow of a mans backe proneth a snake. 305.b
 Marsians endued with a vertue against serpents. 154.l
 Mars his nature and motion. 6.g
 Mars his comets least of all others can be observed. 12.m
 his colour. 13.c
 Mars his motion and light. 10.b
 Marsyas hung himselfe in a Plane tree. 495.d
 Marsyas descended from ladie Circes sonne. 154.l
 Maria, the name of a ladie, which was stricken with
 lightning, being great with child, her child killed, and
 shee without harme. 25.f
 Martines, enemies to Bees. 292.i
 Martines called Apodes. *ibid.*
 Martines or Martiners. See Swallows.
 Martinus Musician scone with Apollo. 107.b
 Martinus in an Oration of his, his head was on a flaming
 fire. 48.b
 Mastix, what it is. 379.d
 Mast trees honoured especially by the Romanes. 456.g
 Mast, a great reuenewes in some countries. *ibid.* ground
 for bread. *ibid.* served up to the table for delicates.
ibid.
 Mast of different kindes. 456.b
 beech Mast sweetest of all others. 458.i

beech Mast described. *ibid. k.*
 Mast of sundry trees. *ibid. l.*
 Mast differ sundrie waies. 459.a
 Mast which is best for feeding cattell. 459.e.f
 Mast of a ship of maine bignesse. 489.e
 Mast tree how it groweth. 525.f
 Masticke tree sheweth thres reasons of plowing ground.
 599.b
 Masticke the rosin of the Lentiske tree. 424.g
 Masticke gum. 369.c. the best. *ibid. f.* issueth of the Len-
 tiske tree. 370.g
 of the Matrice. 344.g.b
 Matrimacians their presumptuousnesse. 15.b
 Matutine rising or setting of fixed starres. 587.d
 Matifes change thei colour. 285.f
 Mauritania, the description thereof. 90.i

M E

Measure of the sea. 149.d
 Measure of the parts of the world. *ibid. e.*
 Medow grounds how to be chosen and ordered. 595.b. when
 to be mowed. *ibid.*
 Medea burnt her husbands concubine by force of Nephtha.
 47.a
 Medowes called Prata or Parata. 553.f
 Media, the description thereof. 122.i
 Medica described. 573.b. how and where to be sowed. *ib. c. d.*
 a singular forage. *ibid.*
 Medicines not applied in due season, be mischiefs. 546.g
 Melampus taught to vnderstand birds language. 296.l
 Melitai, dogs, whence so called. 71.f
 Meleandrya. 243.d
 Mellaria, a towne. 512.d
 Members of mens bodies of miraculous effects. 168.b
 Memorie lost by sundry occasions. 155.
 Memorie rare examples. 167.f. reduced into art. 168.g
 Members genitall of a bonie substance. 352.b. in what
 creatures. *ib.* are medicinable for the disease of the stone. *ib.*
 Memmonides, birds. 284.k
 Memphis, sometime nere the sea. 36.e
 Men slaine for sacrifice. 154.g
 Men conversing generally with beasts. 154.b. their deformi-
 tie and swiftnesse. *ibid.*
 Men headed like dogs, their manners. 155.e
 Men aboute five cubits tall, their strong constitution of bo-
 die. *ibid.*
 Men without noses and mouthes in Egypt. 146.l
 Men that know not the use of fire in Egypt. *ibid.*
 Men that goe ever naked. 177.b
 Men eight cubits high, called Olaby. 147.b
 Men headed like dogs, called Cynmolgi. *ibid. e.*
 Men in Ethiopia which live onely on wild locusts. 147.f
 Men and women greatest footed for their proportion. 150.c
 Men surnamed of trees. 499.c
 Men made to husband and the earth. 516.g
 Men weigh heavier than women. 165.e
 Men have been slaine and yet not bled. *ibid.*
 Men canonized, wherefore. 54.g. their strange shapes. 155.f
 Menoba, a river. 52.i
 Mentor plucked a spill out of a lions foot. 203.b
 Mercurie, so named to expresse his nature. 4.g
 Mercurie his nature and motion. 6.k. of some called A-
 pollo. *ibid.*
 I i i
 Mercurie

The Table to the first Tome

<i>Mercurie his Stations. 10. i. wherefore his Starre differs not from the Sunne about three and twentie degrees.</i>	12. b	<i>Misello of three Kindes.</i>	496. g
<i>Mercurie his colour.</i>	13. c	<i>Misello how it groweth and whereupon it commeth.</i>	ibid. k
<i>Meremades. 236. b. no fabulous things.</i>	ibid.	<i>Misello for what it is thought good.</i>	497. d
<i>Meremen, or Seamen.</i>	ibid. i	<i>Mines of brasse who first digged.</i>	188. i
<i>Meroe, an Island.</i>	36. g	<i>Mists when they are seene.</i>	29. b
<i>Merops a bird.</i>	289. b	<i>a kinde of Mist like unto a pillar, and so called.</i>	23. a
<i>Mese wind.</i>	23. a	<i>Milo his strength.</i>	166. m
<i>Metospheron.</i>	364. k	<i>Militarie orders and discipline who first devised.</i>	189. c
<i>Messalina, the Emperesse of unsatiable lusts.</i>	302. i	M O	
<i>L. Messalinus Cotta devised a dish of meat made of Geese feet and Cockes combes.</i>	280. l	<i>Modenna, a territorie.</i>	39. d
<i>L. Metellus his rare praises.</i>	177. f	<i>Mola, a Moone-calf.</i>	163. c
<i>Metellus Macedonicus highly commended. 178. i. his unhappie fortune.</i>	ibid. k. l	<i>a Monster embalmed and preserved in hony.</i>	158. g
<i>Metacridas, what birds.</i>	284. k	<i>Molluscum, what it is.</i>	467. a
<i>Motopia, what trees.</i>	375. d	<i>Monstrous birch.</i>	157. f
M I		<i>Monarchie, who first erected.</i>	189. a
<i>Mice and Rats indocible.</i>	295. b	<i>Mona an Island.</i>	36. k
<i>Mice presage the fall of an house.</i>	211. e	<i>Monkie.</i>	206. b
<i>Mice forced a people to void out of an Island.</i>	121. b	<i>Monoceros, what kinde of beasts.</i>	212. b
<i>Mice great theenes.</i>	123. a	<i>Monosceli, what kinde of men.</i>	156. g
<i>Mice presage shining things to one. 232. m. they gnaw iron and Steele.</i>	ibid.	<i>Moon her nature, motion, and effect. 6. l. the diuerse motions hereof obserued first by Endimion, who therefore is said to be in loue with her. 7. a. eclipse thereof in the night only, and why. 7. d. See further in Eclipse.</i>	14. i
<i>Mice engender more in a drought.</i>	305. a	<i>Moone lesse than the other Planets, and the reason thereof. 9. f. what difference there is betwene the earth and the Moone.</i>	14. i
<i>Mice of Egypt prickly and goe on their hinder feet. 305. a</i>	ibid.	<i>Moon how many furlongs from the cloudy region to her. 14. m</i>	163. c
<i>Mice most fruitful. 304. l. they engender by licking.</i>	ibid.	<i>Moone in the midst between the earth and the Sun. 15. b</i>	163. c
<i>young Mice found with young in the bellie of the old dam.</i>	304. l	<i>Moone-calf, what it is.</i>	163. c
<i>Mice forced the inhabitants of Troas to abandon the region.</i>	ibid. m	<i>Moon to be obserued in cutting hair of head & beard. 488. i</i>	487. a
<i>Mice and rats ominous in some cases.</i>	233. f	<i>Moone to be obserued in falling timber.</i>	487. a
<i>field-Mice sleepe all Winter.</i>	ibid. c	<i>Moones three appeared. 18. g. by her power grow the bodies of sisters Muskies. 20. i. foresheweth wind and weather.</i>	611. e
<i>against Mice, Rats, and Dormice to be serued up to the table, an Act made.</i>	ibid.	<i>Moone with all power it hath ouer things on earth, and in the sea. 44. c. creatures that haue no blood, doe most of all feele her power. ibid. a Planet feminine, and of her nature. 44. k. nourished by the fresh water. ibid. how to be knowne croissant, in the wane, full, and changes. 607. d</i>	607. d
<i>of the Midriff.</i>	342. b	<i>to be obserued in some points of husbandrie.</i>	607. b
<i>Miel-dewes remedied in corne.</i>	576. g	<i>Moone-calues how engendered.</i>	304. a
<i>Miletus, the head citie of Ionia. 108. g. the diuerse names thereof in former times. ibid. it brought forth that noble Citizen Cadmus.</i>	ibid.	<i>Moramars, what.</i>	85. c
<i>Millet how it groweth in the head and beareth fruit. 558. b</i>	ibid.	<i>Morphnos, a kinde of Eagle.</i>	271. e
<i>it maketh diuerse Kindes of bread.</i>	ibid.	<i>Mosses sweet.</i>	375. e
<i>Milke rained. See Raine.</i>	ibid. i	<i>Mouldwarpes undermine a towne.</i>	212. b
<i>Indisb Millet of greatest increase.</i>	ibid. i	<i>Mouldwarpes passe us in the sense of hearing.</i>	306. g
<i>Milke of a woman before shee haue gone seuen moneths, is not good.</i>	548. g	<i>Mould blacke and red not alwaies best.</i>	502. k
<i>Millet where it is much used.</i>	555. f	M V	
<i>Milke used in sacrifice.</i>	418. b	<i>Mucke when best to be spread.</i>	508. i
<i>of Milke a discourse.</i>	348. b	<i>Muckhis how made and where. ib. how kept fr^o snakes. ib.</i>	297. c
<i>Milke of a woman how it is most pleasant.</i>	ibid.	<i>Muing of Fowler who first devised.</i>	474. g
<i>Millet how to be ordered for presenting maladies incident thereto.</i>	575. d	<i>Mulberry tree lasteth long and why.</i>	ibid.
<i>Milke that commeth first from a Cow, is called Beestings, it will be as hard as a pumish stone.</i>	ibid.	<i>Mulberries described. 447. c. it is of three colours.</i>	447. d
<i>Milke of shee Asse when it is not good.</i>	ibid.	<i>Mulberries of the bramble.</i>	447. d
<i>Milke of Cammels most thin.</i>	348. i	<i>Mulberry trees the wisest of all others. 472. l. how to be cut for the liquor thereof. 486. b. they giue signe that cold weather is gone.</i>	494. b
<i>Milke-way what circle.</i>	599. c	<i>Mules how engendered. 223. f. which be so called properly. 224. b. bearing foies, prodigious. ibid. in Cappadocia they engender and beare.</i>	ibid.
<i>Milke of Asse most thicke. ib. at whiteth womans skin. ibid.</i>	ibid.	<i>Mullet their nature.</i>	245. a
<i>Milke of all sorts will thicken by the fire.</i>	ibid.		a Mule
<i>Minutius Augurinus honoured with a statue.</i>	551. c		
<i>Misello a wonder in Nature.</i>	496. b		
<i>Misello upon the Oke.</i>	460. m		

of Plinies Naturall History.

<i>a Male eighteen years old.</i>	224. i	<i>Nabis, a kind e of beast.</i>	205. i
<i>Mulvian Quinces.</i>	436. b	<i>Naxos. See Rape.</i>	
<i>Mures Marini, what they be.</i>	247. b	<i>Navigation, who devised.</i>	190. g
<i>Murex, what fish.</i>	249. a	<i>Navigations upon the sea. 32. k. by whom the parts thereof were failed and discovered.</i>	ibid.
<i>Munkies and Marmosetes adore the new Moone.</i>	231. e	<i>Naphtus a fish, how it swimmeth.</i>	252. b
<i>Muscadell grapes and wines. See Apiana.</i>		<i>Nautilos or Pompilos, a fish, and wonder of Nature.</i>	150. l
<i>Musicke who first inuented.</i>	189. d	<i>Nayles grow in dead men.</i>	550. g
<i>Musical instrument.</i>	ibid.	<i>Nayles are the extremities of the fingers.</i>	345. e
<i>Mulbromes.</i>	460. l	<i>Nayles in creatures except the Elephant.</i>	ibid.
<i>Musica, what Quinces.</i>	436. b	N E	
M Y		<i>Nea Island.</i>	40. g
<i>Myagirus, the god of the Egyptians.</i>	285. a	<i>Necke how it is composed.</i>	339. a
<i>Myrobolamus. See Ben.</i>		<i>Neckes of all beasts may turne about.</i>	ibid.
<i>Myrobolamos Petrea.</i>	374. k	<i>Needle fishes Belone.</i>	266. b
<i>Myrtilles of sundry Kindes.</i>	451. d	<i>Needle worke whose indention.</i>	228. i
<i>Myrtil Hexastica. ibid. why so called.</i>	ibid.	<i>Nemesis her place behind the right eare.</i>	250. k
<i>Myrtle tree lasteth long.</i>	494. l	<i>Neptune his chappell famous for the games there used euery five years.</i>	74. m
<i>Myrtles of three principall Kindes.</i>	451. c	<i>Nereides. See Mermaids.</i>	
<i>Myrtle berries used in stead of Pepper.</i>	450. l	<i>Nerion. See Oleander.</i>	
<i>Myrtle growing in the place where Rome standeth. ibid. m</i>	451. b	<i>Nero how he took out the blew and blacke markes in his face, after beating.</i>	400. b
<i>Myrtle Plebeia and patricia at Rome.</i>	ibid. c	<i>Nero borne with his feet forward.</i>	160. b
<i>Myrtle Coniugula.</i>	398. m	<i>Nero, how much Incense he wasted at the funerall of Poppea.</i>	371. e
<i>Myrice.</i>	419. a	<i>Neas wonderfull made by birds.</i>	288. l
<i>Myrrhina, what wine.</i>	369. b	<i>sea-Nettle, a fish.</i>	262. i
<i>Myrrhe Atramitike.</i>	ibid.	N I	
<i>Myrrhe Asfaritis.</i>	ibid.	<i>Nicas, borne of his mother a faire woman, resembled his Grand-father a blacke Ethiopian.</i>	161. b
<i>Myrrhe Dufartus.</i>	ibid.	<i>Nicias ouer fearefull of the Moone Eclipse.</i>	9. m
<i>Myrrhe trees where they grow. 368. k. their description. ib. l</i>	369. b	<i>Nicolas Dates.</i>	287. e
<i>Myrrhe of sundry sorts.</i>	369. b	<i>Nightingales contend who shall sing best and longest. 586. e</i>	586. e
<i>Myrtle berries of diuerse Kindes. ibid. d. how counterfeited. ib.</i>	451. c	<i>Nightingale a wonderfull bird for singing. 286. g. presaged singular skill in Musicke to Stesichorus.</i>	ibid. i
<i>Myrtle leaues in powder very good.</i>	451. d	<i>Nightingales deauer than men. 286. k. a white Nightingale.</i>	ibid.
<i>Myrtle wine, how made.</i>	ibid. e	<i>Nightingales singing counterfeited by men. 286. l. not tongued like other birds.</i>	ibid. m
<i>Myrtle oyle, the vse thereof.</i>	452. g	<i>Nightingale parle Greeke and Latine.</i>	293. e
<i>Myrtle coronets used in triumph.</i>	ibid.	<i>Niger river and nature thereof.</i>	96. b
<i>Myrtle rods and rings to what vse.</i>		<i>Nigræ, people whose king hath but one eie, and that is placed in his forehead.</i>	147. e
N A		<i>Nilus the ploughman of Egypt. 577. b. his manner of rising.</i>	ibid. c
<i>Nacre, a kinde of fish.</i>	261. c	<i>Nilus river described. 97. b. hidden for twenty daies in winter. ibid. surnamed Asipus, and why. 97. d. the diuerse names thereof. ib. when he riseth & when he falleth. 98. b</i>	98. b
<i>Naxos Pollio, a giant.</i>	165. b	<i>the ordinary height of his rising is sixeene cubits. ib. the greatest eigheteene cubits, in the time of Claudius. ibid. i</i>	ibid. i
<i>Names of Vine sprigs or jets.</i>	526. k	<i>the least that euer was, against the death of Pompey and the reason.</i>	ibid.
<i>of Nayles a discourse.</i>	349. f	<i>Nilus water helpeth generation and conception.</i>	157. d
<i>Naphtus, the strange nature thereof, and affinitie it hath with fire.</i>	47. a	N O	
<i>Naphtus, what it is.</i>	ibid.	<i>of the Nose and nostrils. 336. k. man onely hath his nose bearing forth.</i>	ibid
<i>Nard leafe of three sorts.</i>	364. k	O B	
<i>Nard the best.</i>	ibid. l	<i>O Belike in the Vatican.</i>	489. e
<i>Nard Celticke.</i>	ibid. m	<i>Oblunio. See Memorie.</i>	
<i>Nard Rusticke.</i>	ibid.	<i>I i i 2</i>	
<i>Narcissinum ointment.</i>	381. d		
<i>Nardum oyle.</i>	382. k		
<i>Nardus sophisticated, and true, how distinguished.</i>	364. k		
<i>root, spike, and leafe.</i>	ibid.		
<i>Natius Natus the Augur.</i>	443. d		
<i>Nathecna Island.</i>	40. k		
<i>Nature onely accounted of diuine power.</i>	5. b		
<i>Nature of wild trees mitigated by translating them.</i>	510. l		
<i>Natures secrets not to be attained unto.</i>	ibid. i		
<i>Nature or ground diuerse.</i>	506. l		
<i>Nauell, the place where veins do meet.</i>	345. e		

The Table to the first Tome

O C		
Ocella, who they be properly.	335.e	
Occhi trees.	362.m	
Occultation of fixed starres.	587.d	
Ocymum, a kinde of prouander.	573.b	
O D		
Odoraria, Myrrhe.	369.d	
O E		
Oenanthe, a bird.	287.a	
Oenanthe, the grape of the wild vine.	379.d	
Oesophum.	370.b	
Oestrus, a bad kinde of Bee.	318.b	
O I		
Oysters haue hearing.	306.g	
Oyster bread.	566.g	
Oysters employed in wicker ware	486.a	
Ointment or oyle of Cinnamon.	382.k	
Ointments odoriferous, whose inuention.	380.k	
Ointment of Marioram.	ibid.	
Ointment of Saffron.	381.b	
Ointment odoriferous how they be kept and tried.	383.c	
to what use they serue. ibid.e. they may be spared. ibid.	384.i	
O K		
Okes of great age.	495.c	
Okes of sundry kindes.	459.a	
Oke droppings are hurtfull.	51.b	
Oke Mast. See Acornes.		
an Oke in Calabria alwayes greene.	466.c	
Okes fruitfull.	460.l	
ibid.	ibid.	
Oke Robur beareth Catkins.	461.a	
Oke albes.	461.a	
mightie Okes sailing upright in the sea.	455.d	
Oke Quercus beareth berries like bull heads.	463.i. it beareth bals, pills, callofties.	ibid.
O L		
Olalagones, names of Frogs.	338.l	
Oleander, what kinde of plant.	469.a. poyson to certaine beests. ibid. counterpoison to man.	ibid.
Oleastrum a kinde of Box tree.	467.c	
Oleum lousd by a Goose.	280.k	
Old oyle of Olives, the use thereof.	435.e	
Old forme of Spanne changed.	53.b	
an Olive tree made barraine by the licking of a Goat.	542.h.	
Olive burnt unto the very stryppes, hath reuined againe.	ibid.	
Olive garden in the Marrucine territory, crosseeth the highway.	544.g. it exchangeth her place with a plot of corne.	ibid.
Olive trees require greatest distance.	515.b	
Olives to be graffed in Autumne.	521.e. not to be set in a holme, whereout an Oke hath bene stocked.	522.h.
Olive plot how long it hath prospered. ibid. when they are to be cherished. ibid. in their blouming they are most hurt by violent raine.	540.m	
Olive chaplets.	432.l	
Olive branches.	ibid.	
Olives how to be planted and ordered, according to Cato.	432.m.	
Olive Hort-yards where to be made.	433.a	
Olives how to be gathered, prepared, and dressed.	433.b	
Olives how to be kept after Catoes precepts.	ibid.	
Olives, what fire they require in pressing.	ibid.c	
Olive trees hurt by the licking of Goats.	435.d	
Olive in the Forum of Rome.	444.g	
Olive trees weither in Italy, Spaine, or Affricke, during the reigne of the kings of Rome.	429.e	
of Olives, the opinion of Hesiodus, where they lone to grow.	ibid.d	
of Olives three kindes according to Virgill.	429.e	
Olive trees require pruning and other dressing.	ibid.	
Olives when to be gathered.	ibid.	
Olives which are best.	430.l	
Olive dregs or lees.	ibid.	
Olives blacke, what they signifie.	431.a	
Olives when they need watering.	ibid.	
Olives to be gathered by hand, or shaken gently, and not to be beaten downe.	ibid.b.c	
Olives of diuerser kindes to be gathered at sundry times. ibid.	ibid.	
Olives royall.	ibid.	
Olives when to be pressed after gathering.	ibid.c	
Olives the greatest, not moist oleum.	432.g	
Olives of Italy fullest of oile.	ibid.	
Olives outlandish kept to be eaten.	432.g	
Olives of Decapole no bigger than Capers.	ibid.	
Olives confested or condue.	ibid.	
Olive trees of India.	361.o	
Olives how they are made pleasant to tast.	432.h	
ibid.	ibid.	
Olives purple.	ibid.	
Olives pleasant of themselves.	ibid.	
Olives proud.	ibid.	
Olive trees of long continuance.	449.b	
Olive wild of great antiquitie.	495.e	
Olive trees line ordinarily two hundred yeares.	446.c	
Olyra, what kinde of corne.	559.d	
O M		
Omphacium, what it is.	430.l	
O N		
Onces where they breed.	206.g	
Onesicratu, Alexander his captaine and writer.	36.b	
Onocrotali, what birds.	295.e	
O P		
Opheostaphyle.	400.i	
Ophiogenes, people, their strange nature. 154.l. they cure the sting of serpents.	ibid.	
Opinions diuerser concerning the generation of Bees. 318.g		
Opinion of the learned concerning nature of marrow. 339.e		
Opinions concerning the damage of cattell.	507.e	
Lu. Opimius and Q. Fabius, when they were Consuls, an arch scene about the Sunne.	17.e	
Opimian wines.	419.d	
Opobalsamum. 377.a. how it was sold.	ibid.b	
Opopanax.	378.l	
Opiet, a tree whereunto a Vine is wedded.	535.b	
- O R		
Oracles or sage sentences of Cato and others concerning Husbandry.	555.b	
Orbona, an alter erected to her.	3.e	
Oracles Islands.	86.l	
Orchus, what Olives. 429.e. why they are so called.	433.b	
Orestes his body.	165.a	
Orge, a strange fontaine.	58.i	
Oricum		

of Plinies Naturall History

Oicum Island.	40.k	
Order of them digesting which chew not the cud.	343.a	
Oxigan found by the stork to be medicinable.	210.m	
Oxior or Oxu.	165.a	
Orites, people of India. 157.b. eat fish onely, rest in against the Sunne.	ibid.	
Oripelargus. See Perenopteris.		
Oryx, a beast with one horne in the midst of his forehead.	331.d	
Oryx, a wilde Goat.	231.d	
Oryx, a Goat that drinketh not. 307.f. a remedie against thirst.	ibid.	
Oryx a wilde beast in Egypt, standeth full against the dog starre when it ariseth.	19.f	
Orobanch.	575.a	
Orpheus his descent.	78.g	
Orphe, a fish.	245.b	
Oryzomeira, what bird it is.	283.a	
O S		
Ofines, what birds they be.	278.l	
Ofrey or Orfey, what kinde of foule.	272.k	
Ofrey or Oftria.	398.m	
Ofey, a towne.	52.b	
Ofegy, a towne.	ibid.g	
Ofiffagi, a kinde of Agle.	272.k	
Ofinoba, a citie.	51.d	
Ofippo, a towne.	52.i	
Ofriches naturally bald.	332.k	
Ofriches the biggest foules that bee. 270.l. their description. ibid. their swiftnesse on foot. ibid. their egges and feathers. ibid. m. their foolishnesse. ibid.l.		
O T		
Ota, why so called.	283.c	
Ota used for bread.	574.b	
Ota, what kinde of birds.	281.c	
Ota and like. Olives onely haue feathers like eares.	33.d	
O W		
Omles their wit when they fight with other birds.	277.f	
Omles depart for a time.	284.g	
O X		
Oxen of the Troglodites hang their hornes downwards.	331.d.	
Oxen at two yeares age change their teeth.	338.i	
Oxen how to be complected in yoke, and how they labour at the plough. 579.a. how much they plough in a day, according to the ground.	ibid.b	
Oxe gall dedicated to Nature.	342.g	
Oxen how highly honoured in old time.	388.l	
Oxycedrus.	438.l	
Oxyrinum.	438.l	
O Y		
Oyle, who chew frant of Olives.	189.a	
Oyle of wild Olives.	433.c	
Oyle of Chamelae.	ibid.	
Oyle of Cicor Ricinus, ibid. how it is made. 434.g. the use thereof.	ibid.	
Oyle of Amundbuter.	434.g	
Oyle of blacke Myrtle berries.	ibid.b	
Oyle of garden Myrtle.	ibid.	
Oyle of Cyprus and Cipresses.	434.g	
Oyle of Benitica Caprium, of Chestnuts, Sejan seed.		
Rice.		
Oyle Melinum.	382.b	
Oyle of Oenanthe.	434.i	
Oyle of silbes.	ibid.	
Oyle of Plane berries.	ibid.	
Oyle of Quinces.	382.g.b	
Oyle de Bau.	382.g	
Oyle of Myrtes.	ibid.	
Oyle of Quinces. See Melinum.		
Oyle of Lillies.	382.b	
Oyle of Fenigreeke.	ibid.	
Oyle of Myrrhe.	382.m	
Oyle, an acceptable liquor to be used outwardly.	428.i	
Oyle, the uses thereof.	432.k	
Oyle Licinianum.	430.i	
Oyle abused by the Greekes.	ibid.	
Oyle de Bays how it is made.	434.g	
Oyle Olive, the price at Rome.	429.c	
Oyle Olive of greene Olives. ibid.f. worse for age. and why. ibid. it hath three degrees in goodness and no more.	432.i	
Oyle of Graine Gnidian.	434.i	
Oyle Glencinum.	ibid.k	
Oyles of Adalabau.	ibid.	
Oyles of sweet Calamum, Baulme, Iris, or Fleure de Lys, Cardamomum or graines of Paradise, Melilot, French Nard, Panax, Maiorā, Elecampane, Cinnamon root. ib.		
Oyle Rosar.	434.g	
Oyle of Squinanth, of Henbane, of Lupines, of Daffodill.	ibid.	
Oyle of Radish seed. 434.l. the root of Gramen.	ibid.	
Oyle Cortinon.	ibid.	
Oyle Cnecinum or Cnidium.	434.i	
Oyle of Lillies. ibid. Selgeticum. ibid. of Patch.	ibid.	
Oyle liquor will turne into lees.	430.m	
Oyle contrary to venome of Scorpions.	335.g	
Oyle lees or dregs, wherefore it is good.	435.e	
Oyle killeth Insects.	335.g	
Oyle of Saffron.	504.m	
O Z		
Ozanitis, what it is.	364.i	
P A		
Pactolus, a famous river. 107.e. the names thereof.	ibid.	
Padians, a people governed by women.	128.b	
Pati, families in Rome. 335.e. why so called.	ibid.	
Pazon, an Eunuch how he was sold.	175.f	
Pazy, fishes.	245.a	
Pala, a tree of India.	361.a	
Palatium, a mount wherein a chapel was dedicated to the goddesse Feauer.	3.e	
Palestimum, a famous and populous citie in Taprobane.	130.g	
Paliticium, what starre.	592.l	
Palmyra, a noble citie with the description thereof.	104.i.	
Palurus, a thorne plant.	398.g	
Palma Christi. See Ricinus.		
Palme.	379.e	
Palmestrie		

of Plinies Naturall History!

Palmeſtriv frinoloſi. 354.k
Palmyrinum, what wine. 421.a
Pamphylia of Coos, inuentreſſe of weaving ſilke. 323.a
Pan governor of Lucitania. 51.f
Panaces or Panax what manner of plant. 378.k
Panathenaicum ointment. 381.c
Pandore, a hundred of Indians that live in vallies untill two hundred yeares age. 156.m
Panicke of many kinds. 558.b. it yeeldeth very much flour. 558.b
Panicke with Beanes, much uſed in Piemont. 566.g
Panicke, a corne, why ſo called. 558.g
Pantheon, a temple of Venus in Rome. 257.d
a Panther ſeeketh helpe at mans hand. 204.g. her thankfullneſſe. 204.g
Panthers ſkins, ibid. i. their ſweet ſmell and hideous lookes. 204.g
Panthers marked in their ſhoulders. 204.g
Panthers exhibited in ſhewes at Rome. 204.g
Panthers how they be poiſoned with Aconitum, and cured againe. 204.g
Pantherina, what manner of Tables. 204.g
of Paps a diſcourſe. 204.g
Paps of a Dolphin placed in the bottome of her belly. 204.g
Paps of a Sow hauing bene newly farrowed, bee excellent meat. 204.g
Paps how they are placed in creatures. 204.g
Paps of Elephants are under their ſhoulders. 204.g
Papyr cane in Egypt. 204.g
Papyr when it was firſt made, and where. 204.g
Papyr reed or cane how it groweth. 204.g
the uſe thereof beſides Papyr. 204.g
Papyr Hieratica. 204.g
Papyr Auguſta. 204.g
Papyr Liua. 204.g
Papyr Amphitheatrica. 204.g
Papyr Fanniana. 204.g
Papyr Saitica. 204.g
Papyr Taniotica. 204.g
Papyr Emporetica, or ſhop papyr. 204.g
Papyr how it was made. 204.g
Papyr Macrocola. 204.g
Papyr Clandian. 204.g
Parchment deuſed at Pergamu, and upon what occaſion. 204.g
392.g. 204.g
Pardaliu, an ointment. 204.g
Parietarie, a medicine to diuerſe birds. 204.g
Parkes when firſt deuſed. 204.g
Parre, certaine birds. 204.g
the Parra what manner of bird. 293.b. named Sittace. 204.g
ibid. can prate, and pronounce xiii. ibid. hard beaded. 204.g
feeblefooted. ibid. toneth wine. 204.g
Parrats haue the hardeſt ſkull. 204.g
Parrats are firſt ſcene in the Iſland Gagandiu. 204.g
Parrats moſt principall of man, are ſkinned by themſelves. 204.g
342.l. 204.g
Parts genitall make difference in nations. 204.g
Parts genitall of Hermophrodites, ſerue for both ſexes. ibid. 204.g
Parthenitis promontory. 204.g
Parthians ſubiect to corrupt breath. 204.g
no Partridges in Boetia. 204.g
Partridges of Paphlagonia haue two hearts. 204.g
344.k. 204.g
Partridges, how induſtrious they are in building their neaſts. 204.g
Partridges exceeding lecherous. 204.g
Cock-Partridges tread one another for want of Hen. 289.g. 204.g
Hen-Partridges conceiue with the very are of the Cocker. 204.g
289.d. their iealouſie. ibid. e. f. their policie to ſaue their young. ibid. their age. 204.g
Pafcuſa the reuenewes at Rome. 204.g
Paffienus Criſpus fancied a beech tree. 204.g
Patales, a famous port in India. 204.g
Pareton, a kinde of Date, why ſo called. 204.g
of Patience ſundry examples. 204.g
Patroclus, the name of an Elephant. 194.k. his hardie ad- venture and reward. 204.g
Paulinus Suetonius, a Romane that went firſt ouer Atlas. 204.g
92.b. 204.g
Pauiches of hoofed beaſts hard and rough. 204.g
Paunch near compaſſed with bones. 204.g
Pauſia, what Olines. 204.g

P E

Peaches ſoure kinds. 204.g
Peaches, why called Perſica. 204.g
Peaches in Perſia, whether they be venomous or no. ibid. 204.g
Peacocks crowned with haire feathers. 204.g
Peacocks beautifull, muttie, and proud. 278.m. his life. 204.g
279.a. they be malicious. ibid. made fat and ſtrued up to the table firſt. 204.g
Peacocks lecherous. 204.g
At. Anſidius Lurco fed Peacocks, and made a gaine there- by. 204.g
the Pea-hen how ſhee layeth. 300.m. and hatcheth. 204.g
Peares more pointed than Apples. 204.g
Peares how preferred. 204.g
the properties of Peares and their uſes. 204.g
Peares how they are kept long. 204.g
Peares Barbarian, Venerian or coloured, Royall, Patrician, Voconian, Volenian. 204.g
gourd Peares. 204.g
Peares called Libralia. 204.g
Peares proud. 204.g
Peares Cruſtamine. 204.g
Peares Falerne, why ſo called. 204.g
milke Peares. 204.g
Syrian Peares, why ſo called. 204.g
Peares Dicimiana. 204.g
Peares Dolabellian. 204.g
Peares Pſeudodicimiana. 204.g
Pompeian Peares. 204.g
pap Peares. 204.g
Tyberian Peares, why ſo called. 204.g
Peares taking name of countries. 204.g
Peares Licirian, Senecian, Tyrannian, Favonian, Laterian, Aſitian, Amerian, Picentine, Numamine, Alexan- drian, Numidian, Grecian, Tarentine, Signine. 204.g
Peares Teſtacia, why ſo called. 439.b. Onychine. 204.g
purple Peares. 204.g
Peares Myrapia, Lawret, Nard, Barley, Bottle, Thicke, Coriolana. 204.g
Peares how they be engendred, why they be called Vnion. 204.g
254.m. 255.e. 204.g
Peares the ſoueraigne commodities of the world. 204.g

the cause of their dimmeſſe or cleareneſſe.	254.g	Phthorinum, a wine to cauſe abortiue fruit, how it is made.	
Pearles much in requeſt with the Romanes.	256.g	422.g.	
Pearles out of Arabia.	371.f	Phu.	364.l
Pearles found in Acarnania will loſe their colour.	256.i	Phycos.	401.d
Pearles their price and eſtimation.	254.k	Phygemata, untitely fruits of ſhell-fiſhes.	255.e
Peaſe; when to be ſowne. 569.e. how coddled.	570.g	Phyros, what it is.	401.e
Pechma, whence deriued.	550.b	Phyſeter, what fiſh.	235.f
Pegaſi, what birds.	296.k	Phyſicke, who deniſed.	188.i
Pegaſi, winged horſes.	206.g	Phyſicians taxed for dealing with dangerous medicines.	
Peinting who fiſt deniſed.	190.g	400.g.	
Pelagie, a kinde of purples.	259.a	Phyſicians that excelled.	174.l
Pelamides, fiſhes.	243.c		
Pelaſgum.	453.a	P I	
Pelecimon. See Securidaca.		Pietie. See Kindeneſſe, Naturaſ.	
Pelion, a hill meſured and the height thereof.	31.d	Pia water, a tunicle of the braine.	332.m
Peloponneſus, the deſcription thereof.	73.c	Pictures of great price.	175.c
Penens a famous river.	76.l	Pics learne to ſpeake.	293.c
Peniroyall floures in mid-winter.	588.l	Pig taken from the pap, maketh it returne flat to the bellie.	
Peneroyall floureth fiſh in mid-winter.	20.b	347.f.	
People of the Eaſt feed of graſhoppers.	325.a	Pigs know their owne paps.	547.f
People without heads.	156.g	Pikes of the ſea.	245.e
People with eares that couer their whole body.	157.a	Pillers of Craſſus did beautifie the theatre.	499.b
Pepiniere, how they are to be made.	510.d	Pilummi, why ſo called.	350.b
Pepper tree, 361.c. long pepper. ibid.d. white pepper, blacke pepper.	ibid.	Pindarus feared the Suns eclipſe.	9.a
Pepper ſophiſticate.	361.e	Pine tree and Pinaſter.	462.b
Peppers their price.	ibid.	Pine tree chapters.	434.g
Pernopterus, what kinde of Hawke. 272.g. and her properties.	ibid.	Pine nuts or apples how they grow.	435.e
Pervnos. See Morphuos.		Pine trees ever full of fruit.	473.e
Pervumes. See Oniments odoriferous.		Pinna, a cockle in Acarnania.	256.b
Periwrie euen in the very Capitoll.	4.i.	Pinnoraz, what fiſh.	253.a
Perne Iſland.	40.k	Pip in heni, 300.b. the cure.	ibid.
Perſea, a venomous tree.	437.d	Pipes of Canes, Reeds, Shankes-bones, Silver, Box and Lotos.	484.l
Perſica, what manner of tree, and the fruit. 390.i. the wood durable and ſerueth for images.	ibid.k	Pipes made of reeds and canes.	844.l
Perſiſtence beginning in the South goeth to the Weſt. 183.d. contineth but three moneths.	ibid.	Pyrrhus his great toe, and vertue thereof. 155.c. it was reſerved for a holy relique.	155.d
P H		Pirrie or wine of peares.	421.a
Phalanga, a ſort of ſpiders.	322.b	Piſſes of Camels ſerue for bow-ſtrings.	352.b
Phalangium engendred in Erule.	575.b	Piſmires greedy of Cypreſſe ſeeds.	512.e
Phalerides, daimie water-ſoules.	296.g	Piſmires ſhow the change and full of the Moone ruled by the power of the Moone.	20.e
Pharaces, a people in Ethiopia.	155.b	C. Piſo a notable drinker, advanced therefore by Tiberius Claudius.	427.e
Pharus, an Iſland cut from Egypt by the ſea.	39.e	Piſones, why ſo called.	550.b
Phaſtic, what olues.	432.g	Piſſe of Beares hard as horne.	152.b
Phedrus was accounted moſt happie.	180.b	Piſſoceros, the ſecond foundation of the worke of Bees. 13.b	
Pherecidas, Pythagoras his maſter fore-telling an earthquake.	37.d	Piſtores, who they were in Rome.	567.b
Phila, a place in Nilus.	226.c	Pitch trees of ſix kinds.	462.b
Philip of Macedony fighting againſt Greece, the ſkie appeareth bloudie.	17.c	Pitch plaiſters.	424.b
Philippides his wiſtneſſe.	161.m	Pitch wine.	ibid.
Phil ſcru how he loved Bees.	313.f	Brutian or Calibrian Pitch.	424.l
Phlomidis, the courrier or Poſt of Alexander.	35.c	Pitch how it is knowne good from bad.	ibid.
Phemonoe male of Egles.	322.b	Pitch where it hateth to grow. 462.i. the deſcription thereof.	462.e
Phenicolanens.	374.i	Pitch trees commended for their roſin.	ibid.l
Phenicopterius tongues.	296.g	timber of Pitch tree for what it ſerueth.	ibid.
Pheniciturus. See Robin-redbreaf.		Pitch tree how it differeth from the Larch.	463.b
Phoenix what manner of bird.	271.e	Pitch trees grow againe if they be burnt to the roote.	ibid.
Phoenix the bird, why it took that name.	387.c	Pitch tree why it is called Phthiriophoros.	463.a
Phoenix adorned with a plume of feathers.	331.a	Pitch both liquid and ſtony, how it is drawn and made.	464.b.i.
Phrygian tune by which Iupiter moneth.	14.l	Palimpſſa or ſtone pitch. ibid. Brutian pitch.	ibid.
		Pitch roſin out of the pitch tree.	465.a

The Table to the first Tome

filled Pitch, what it is.	464.k	damaſcen Plums.	437.b
Piffaſbaltia, Pitch.	465.b	P O	
Pitch, where and when it is gathered beſt.	ibid.	Poetry, who inuented.	189.f
Pitch hurtfull to trees.	541.e	Polema, how it was made.	561.b
Pithecuſe Iſlands.	40.b	Pogonia a kinde of Comets.	15.e
Pithon, a kinde of Comet.	15.e	Poiſons, food to ſerue creatures.	307.e
Pitydia, what Pine nuts they be: good for the cough.	425.f	Poiſoning deuſed by man onely.	548.k
Pits for wells who ſanke firſt.	118.i	Poles two, where ſuppoſed to be.	84.i
P L		Polydorus his tombe.	78.b
Plaice, a fiſh.	145.b	Polypes or Pouchciſles.	250.b. 251.a
Players upon the ſtage rich.	175.e.f	Polypi, how they liue. 251.a. one of them robbed the fiſhers.	ibid.
Plane tree whereupon Marſſus hung himſelfe.	495.d	ibid.	251.d
Plane tree honoured for ſhade onely.	358.g	of a theening Polype a wonderfull example.	564.b
Plane trees nourished with wine at the root.	ibid.	Pollen, fine flower.	91.e
Plane of admirall bigneſſe in Lycia.	358.b.i	Polybius his ſearch into Africke, and opinion concerning the deſcription thereof.	228.i
the Plane tree of C. Caligula.	ibid.	Polymita, what kinde of cloaths.	437.f
the Plane tree of Candie ſo much renowned.	359.b	Pomcitrons, why called Medica.	440.k
dwarſe Plane trees.	543.d	Pomegranats, how to be kept.	398.b
Plane tree turned to an olive in Laodicea.	19.i	Pomegranats appropriat to the territory of Carthage.	ibid.
Planets, by whoſe motions are occaſioned the ſeaſons of the yeare.	42.l	dinerſe kinde.	398.i
Planets keepe their power as well under the earth as above.	585.f	Pomegranate rindes.	ibid.
Planets and their motions to bee conſidered in husbandrie.	3.a	Pomegranate floweres.	168.l. 169.a
Planets ſeuen.	5.f	Cn. Pompeius praized.	555.a
Planets their mooning: they goe a contrary courſe to the ſtarry heauen.	7.c	Cn. Pompeius no purchaſer of his neighbours land.	196.i
Planets ſed with earthly moiſture.	10.c	hated for his crueltie to Elephants.	ibid.
Planets, touching their motions and lights.	ibid.	Pompeius magnus, why ſo called. 169.a. compared to Alexander and Hercules.	169.b
Planets their circles or angles.	ibid.	Pompeius ſubdued 876 townes of Spaine.	ibid.
Planets, why ſome ſeeme higher, ſome lower.	ibid.	how he came to be called Magnus.	ibid.
the opinion of them conſidered that thinke Planets doe ariſe and mount from earth to heauen. 11.d. whence their ſtations tooke their name.	ibid.	Pompey diſcription on the temple of Minerva.	ibid.
general rules as touching Planets. 12.b. their ſeueral diſtinct colours. 13.c. their diſtances one from another. 14.i	ibid.	his deeds.	244.b
Planets of their muſicke and harmonie.	496.i	Pompili, certaine fiſhes.	
Plants winding about others & growing upon them.	523.a	Pome-piores, or Pearre-apples. See Apples Melapia.	85.b
Plants haue an appetite to incorporate one in another.	450.i.k	Pontus, the Iſlands thereof.	470.b
Plants in what regard they be accepted.	ibid.	Poplars their dinerſe kinde.	494.i
Plants of peares and apple trees how to be nourished.	143.b	Poplar wood good timber but for oſen lopping.	379.d
Platanuſta, fiſhes in the river Ganges.	171.f	white Poplar moſſe.	228.b
Plate how he was honoured of Denis the tyrant.	297.d	Poppie-work cloth.	589.e.d
Platter of Aſope.	331.c	Poppies both wilde and tame, when to be ſowne.	ibid.
Platycerotes, a ſort of ſtags, why ſo called.	53.d	their medicinable vertues.	348.i
Plagues accounted gods.	504.g	Poppea wife to Nero, how ſhee bathed her body.	189.a
Plaines of Roſea the very fat of Italy.	515.c	Popular gouernement, who firſt erected.	436.l
Plenty of corne among olive trees in Bactica.	483.e	Popularia, a kinde of Abricotiſs.	215.e
Plinie confeſſeth himſelfe beholden to former writers.	189.a	Porkepines, their deſcription and nature.	ibid.
Plotia a weed.	384.l	Porphyrio, what manner of bird, and how hee drinketh.	295.d
Ploough, who firſt deuſed.	296.b	another Porphyrio.	296.k
In Plotius found by the ſmell of a pretious ointment.	391.a	Porquiſſes, fiſhes.	241.a
Plungeons, what birds.	436.m	K. Porſena raiſed up lightning by conuiration.	26.k
Egyptian Plumtree.	437.a	Porcius Cato his commendable parts. 169.f. & deinceps.	14.l
Plums of ſundry ſorts.	ibid.	Posidonius the Mathematician.	172.b
aſſe Plums.	ibid.	Posidonius honoured of Pompeius.	188.l
purple Plums.	ibid.	Pottery, whoſe deniſe.	299.e
wheat Plums or wax Plums.	ibid.	a Pouler cunning in eggs.	247.e
nut Plums.	437.b	Pourecuttle, a fiſh.	325.a
apple Plums.	ibid.	Poyſon of Scorpions is white.	341.e
almond Plums.	ibid.	Poyſon of ſerpents proceedeth from the gall.	
		P R	
		Pracordia, the upmoſt inwards of man.	342.i
		they be a defence to the heart.	ibid.
		Præſages	

of Plinies Naturall Hiſtory.

Præſages of fortune by the teeth.	164.l	Purple fiſhes	238.g
Præſage by fiſhes.	244.l	Purple colour from whence it commeth.	ibid.
Præſages by the ſetting of Bees.	519.d	Puteal Libonis.	443.d
Præſages by meaning of ſpiders.	324.i	Putockes. See Kites.	
Præſages by ſigſit of Herons. 334.g. by lightning, ſneezings, ſtumbling with the foot.	4.l	Purple fiſhes of two ſorts, Purpura, and Buccinum. 258.l	ibid.
Præſar, the name of a blaſt and the nature thereof.	25.a	their difference.	ibid.
Prætextæ, garments, when deuſed.	228.b	Purples Pelagia, Tenienſe, a kinde.	259.a
Præuarication, what it is in Husbandry. 379.c. a word borrowed by lawyers.	ibid.	P Y	
Præſon.	401.d	Pyannets what kinde of birds.	285.d
Praxitales his grauen image.	175.d	they remooue their neſts.	289.g
Price of Iſocrates his oration.	151.f	Pygargi, a kinde of goats.	231.d
Prieſts of Cybele their manner.	352.b	Pygargos, a kinde of Eagle.	271.c
Principles about Husbandry.	555.a.b	Pygmaei Spythamei, a people in India three handfulls high. 156.i. their warre with cranes.	ibid.
Prieſts, fiſhes two hundred cubits long.	235.c	Pyramid, an Athenian haven, by the retiring of the ſea leſt drie land.	39.d
Procella a ſtorme.	25.b	Pyromantie whoſe deniſe.	189.d
Procyon, what ſtarre.	597.b	Pyroſachne, a plant.	398.k
Prochyta Iſland.	61.c	Pyrrhæum the ſorreteſt, burnt and reſined.	463.b
in Prodigies who were firſt ſkilfull.	189.d	King Pyrrhus his great toe and other parts medicinable.	155.d
Prodromi, what ſigs.	474.k	Pyrrhus bearing twice a yeare.	474.m
Prodromiſſe called, are the Northeaſt winds, and why.	23.d	Pyrrhus K of Epirus intended to ioyne by a bridge Greece vnto Italy.	64.g
Prognofications of weather and wind.	610.l	Pyrrhorax, what bird.	296.e
Prognofications by the eyebrowes.	354.l	Pythagoras firſt found out the nature of Venus planet, and when.	6.i
Prognofication by the eyes.	ibid.	Pythagoras found out the diſtance betweene the earth and the Moone.	14.a
Prognofication of weather and other future things by dumbe beaſts.	211.e	Pythius of Maſſiles a writer.	43.e
Prohibitory, what bird.	277.c	Pyxacanibus Chronius.	36.
Promontory Nymphæum.	48.g		
Promontory Saturnes cape.	53.d		
Promontory Tanarus.	268.l		
Propagation of trees two waies helped.	516.g		
Propolis the bird foundation of the worke of Bees.	313.b		
Proſerpin, what it is.	585.d		
Protophron, what it is.	487.d		
Prufius K. of Bithynians his ſon was borne hauing a bone inſtead of a gum in the upper iaw.	164.i		
Proſe, writing and ſpeaking who inuented firſt.	189.f		
P S			
Pſeudonarus.	364.k		
Pſyllians named of king Pſyllus.	154.k		
Pſyllians venomous by nature.	ibid.		
Pſyllians how they make triall of their wifes chaſtitie. ib.	ibid.		
their bodies kill ſerpents.	ibid.		
P T			
Pteambati, people which haue a dog to their king.	147.e		
Ptiſana, how it is made. 561.e. highly commended.	ibid.		
Phthongus, Mercurie his tune.	14.l		
P V			
Publius Catienus Philotimus burned himſelfe for loue of his maſter.	174.k		
Publius Rutilius died ſuddenly.	134.i		
Puſſe apples.	438.l		
Pulmentaria.	563.b		
Pulpa in trees, what it is.	486.k		
Puſſe, what it is. 557.e. 558.i. how it is rooted.	557.e		
Puſſe of all ſorts how it groweth.	558.l		
Puſſe called in Latine Legumina, and why.	576.m		
Puſſe of the arteries bewraith hidden diſeaſes.	345.d		
Puſſe what kinde of leafe they haue. 558.m. long in blowing and not at once.	559.a		

Q V

Q Vadrant for an husbandman.	609.c
Quailes ſie by tromps.	282.k
Quailes how they helpe themſelves by ſying.	283.a.e
they feed vpon white Ellebore ſeed. ibid. they be ſubiect to the falling ſickenſſe.	ibid.
four Quarters principall in Rome.	551.e
Quickeneſſe of ſpirit, examples thereof.	168.e
Quicke creatures come naturally into the world with their heads forward.	304.i
Querquetulana, a gate in Rome.	462.g
Quinces, why called Cydonia.	436.g
Quinces of diuers kinde. ibid. how to be kept and preſerued.	440.i
Quincius Cincinnatus ſent for from the plough to be Dictator of Rome.	552.g
Quintiana Prata.	552.g
Quisquilum. See Cuſculeum.	

R A

R Adj, what olives.	429.e
Radish keepeth away drunkenneſſe.	242.l
Ragged apples.	438.l
Raine, food of trees.	500.a
Raine	919.e

The Table to the first Tome

Raine in midsummer nought for vines.	ibid.k	Remedie against stinging of scorpions.	325.e	
Raine in Winter most in season for plants.	501.b	Remedies of trees common and proper.	546.l	
Raine at the same time helpeth not all trees.	ibid.	Remedies against sundry maladies in corne.	575.e	
Raine by night better than by day.	501.e	Remet of a Rabbet medicinable for the flux of the belly.	346.k	
Raine how it is caused.	20.k	Report of Hercules and Pyrene or of Laturne is fabulous.	51.f	
Raine strange and prodigious, of milke, blond, bristles, &c.	27.f.28.g	Residence upon land.	555.a	
Raine not at all in some lands.	42.b	R H		
Raine water saved for ordinary use to drinke.	146.m	Rhapannus, a venomous shrub.	362.l	
Raine-bow sheweth what weather.	612.m	Rhododendron, a beast.	205.e	
Raine-bow the nature and reason thereof.	28.l.m	Rhododendron. See Oleander.		
Rams-fish his manners.	262.b	Rhemnius Palemon an excellent good husband.	411.d	
Rams and their nature.	226.m	Rhinoceros, what beast it is. 205.e. his fight with the Elephant. ibid. horned in the nose.	133.e	
Rams generally armed with crooked hornes.	331.c	Rhododaphnis. See Oleander.		
Ranke come how to be remedied.	576.	Rhodes Island.	40.g	
Rankenesse hurtfull to corne.	482.g	R I		
Rapes, and their use. 570.i.k. their plentifull commoditie, they grow every where.	ibid.k	Ricinis. 433.f. why so called.	ibid.	
Rapes male and female.	570.l	Rice corne described. 561.b.c. and the use thereof.	ibid.	
Rapes of three sorts.	570.m	Rie.	572.l	
wilde Rapes medicinable.	571.a	Riter-horse in some sort his owne physitian.	346.l	
Rapes with what ceremonie to be sowne.	ibid.b	Riuers of a wonderfull and strange nature.	45.a.b	
Raspis described.	485.f	a Riuer warme in Winter, and exceeding cold in Summer.	545.a	
the flowers of Raspis medicinable.	ibid.	R O		
Ratunena the gate of Rome, and whence it tooke that name.	222.g	Robin Redbreast.	287.a	
Rats of Pontus their nature.	216.m	Rocke of stone of a strong and wondrous nature.	42.b	
a Rat sold for two hundred sesterces.	233.a	Rokes in Syria burne corne.	503.e	
Ratens taught to speake.	293.f	Royall ointment, what it is.	382.b	
Ratens their properties. 276.i. how they conceive with young.	ibid.k	Roiot and excess of Romane Senators.	91.f	
a Ratens saluted the Emperour. 294.g. solemnly interred.	ibid.	Romanes kinde and good one to another in oldtime.	4.g	
ibid. b. his death reuenged by the people of Rome.	ibid.	Romanes trafficked into India.	133.b	
Ratens employed by an hawker.	294.k	Romanes excell all nations in all kinde of vertues.	176.b	
a Ratens made shift to drinke at a bucket.	ibid.l	Rome diuised into quarters according to woods adioyning.	461.f	
Ray killeth wheat.	575.a	R R		
Red Deere. See Stags.		Rooke. See Crow.		
Red sea, why so called.	134.g	Root of an oke taking an acre in compasse.	477.e	
Reeds of strange bignesse.	155.e	a Root of a rape weighing foure hundred and one pound.	570.l. how dressed for the table. ibid. how preserved coloured artificially.	ibid.
Reeds where they grow. 524.m. they multiplie and encrease of themselves.	515.a	Roratio a blasting of vines after their blowming.	540.i	
Reeds and Canes to be set before the Calends of March. ib.		Rosaf oile in greas request.	382.g	
Reeds cease to grow at mid-winter. ibid. alwaies to be cut in the wane of the Moone.	525.b	Rosin trees of six kindes.	462.b	
Reeds employed to many uses.	482.g	R V		
Reeds used to calstres ships.	ibid.b	Rubigo in corne, what it is.	598.i	
Reeds serue Easterlings for arrowes.	ibid.f	Rubigalia, a festiual holiday.	600.g	
Reeds of Italie compared with those of Candie and Picardie for making of shafts.	ibid.k.l	Rue discovered by the Weasill.	210.m	
Reeds differ in leafe.	483.c	Rumbotinus, a tree.	405.b	
what part of the Reed fittest for euery pipe.	484.i	S A		
Reeds for Faulconers poles.	ibid.	Saba, & Sabota, the proper place for frankincense. 366.g		
Reeds for angle-rods.	ibid.	Sabis a god.	368.g	
Reeds for vine pearches.	ibid.	Sabines called Sevini, and why.	65.a	
Reeds and canes how to be planted.	ibid.k	Sacrifice young beasts when they be in their season. 230.g		
Reeds, how to be killed.	557.a	Sagunt a child being borne presently returned into his mothers wombe againe.	158.g	
Reverence. See Bais.		Salt pether earth good for plants.	503.c	
Refrue or Refina.	569.b	Salt cannot be made without mingling of fresh water. 46.k		
Region in Thessalia, how it grew to be cold.	503.d	Salamander his description and nature.	305.e	
Atrilius Regulus flew a monstrous serpent.	199.d	Salamander		
Religious reuerence in the knees of men.	350.b			

of Plinies Naturall History.

Salamander not distinguished by sex.	305.d	325.a. they are harmelesse in Italy. ibid. b. they are harmelesse to things without bloud.	325.c
the Salmon fish.	247.a	Scorpions, where they be harmelesse to strangers, and some to inhabitants: they reuenge their brethrens death.	325.c.
Sallowes. See Willowes.		Scutecons for grassing how to be made.	520.b
Samaris, what it is.	1468.g	Seyros wind.	23.a
Samosatis, a citie in Comagene.	46.m	Scythia free from lightning, and the reason.	23.c
Sambri, people where fourfooted beasts haue no ears.	146.k	Scythian nation, the description thereof. 123.e. called by Persians Sacas.	ibid.
Sandalum, what corne.	559.d	Scythian sea the water thereof fresh.	124.g
Sandalides, Dates.	387.d	Scythians feed on mens flesh.	153.f
Sangualis, what bird.	274.b	S E	
Sapa, what it is.	416.l	Sea engendeth the like of all that is in the world besides.	
Sapa in Ethiopia what it signifieth.	147.b	235.a.	
Sap of trees. See Alburnum.		Sea Rams.	236.k
Sapinum, what it is.	465.d	Sea Elephants.	ibid.
Sepinus, what it is.	ibid.	Sea-calues or Seales.	243.a
Sepinus in trees, what it is.	488.l	Sea, where it is deepest.	444.
Sarcocolla, a tree and gum.	391.d	Sea hotter in winter. 46.k. made calme with oile.	ib. d.
Sarcling, what it is, and of what use.	580.k	Seas in the reflux and ebbe thereof living creatures are, and not else.	43.e
Sardis the capitall citie of Tydia.	107.e	why the Sea is salt.	44.b
Sardane a fish.	244.i	Seas the reason of their reciprocal ebbe and flow, and where they keepe no order.	42.k
Sargus, what fish.	246.b	maruailes of the Sea.	43.f
Sari, a shrub.	400.k	Sea, what lands haue been turned wholly into.	40.i
Sarpedon his letters written in pappyr.	394.l	Seas how they haue gone backe and diuided lands.	39.f
Saturne what he is, and nature and motion thereof.	5.f	what lands they haue broken in betweene.	40.b
Saturne causeth raine, &c.	19.e	Seareds.	401.d
Saturne colour.	13.c	Seatrips.	401.d.e.f
Satyres their shape.	96.i	Sea cabs.	287.f
Satyres haunt mountaines in India.	156.g	Sea water unwholesome to be used in making dough. 500.	
Satyres what they are.	156.g	Sea about Tabracan full of trees.	130.b
Sauces how they be dangerous.	355.e	Sea snakes twentie cubits long.	132.k
Sauine how it is helped in growing.	516.i	Sea-merle fish.	244.b
Saurie or Cmlabubula found in the land Tortoise.	210.l	Sea-thrush fish.	ibid.
Sauromates eat but one meale of meat in three daies.	154.i	Sea yeeldeith precious coquils and pearles.	254.i
Sauours different in fruit.	449.d	Sea nettles and Spunges, neither living creatures nor yet plants. 262.i. their manners.	ibid.
Sauce, called Garum Sociorum.	246.k	Sea-hare.	264.g
S C		Sea Tortoise hath neither tongue nor teeth.	339.f
Scallops.	253.d	Seales haue not bones.	345.a
Scalop fish like to the sea urchin.	256.b	Seale fishes haue no eares.	333.g
Scarus, a kinde of fish.	245.f	Seasoning time of the yeare in plants when it is.	471.d
Scarnus Consul, found out a vaine obseruation of lightning.	279.c	Sebesten, what fruit.	388.l
Scenita, people why so called.	139.f	Sebesten.	437.c
Sceptrum. See Erysceptrum.		Sebesten and Seruices may be grafted both in one stocke.	511.f.
Schæzus, what measure it is.	366.b	Volcarius why he was called Sedigimus.	349.e
Sciotericon, a diall, and the finder out thereof.	36.k	Seed, what it is.	563.a
Sciene, fishes.	244.b	Seed-corne of all sorts how to be chosen.	582.m
Scincus bred in Nilus. 209.b. the vertues thereof in Physicke.	ibid.	Seed how to be dispensed for sundry grounds.	483.d
in sundry Sciences excellent men.	174.k	Seed falling from heauen engender all things.	2.b
Sciopodes, a people in India.	156.g	Segesta, a goddesse.	549.e
Scipio Africanus the former cut out of his mothers wombe 160.i.		Sen, a goddesse.	ibid.
Scipio Africanus the second his trench separating the two provinces of Africke.	93.e	Selenitum an Inie.	480.l
Scipio Nafica his hard hap. 173.e. his praise.	ibid.	Seleucus Nicator purposed to cut the land through betwene Cimmerius Bosporus and the Caspian sea. 120.e	
Scolopendres, fishes.	262.g	Seleucides, birds enemies to locusts.	284.l
Scolopendres chase people out of the countrie.	212.b	Sementine or Antimone corne.	557.d
Scolopendres without wings.	327.b	Sembracena,	
Scordastus, a tree.	363.a		
Scorpions and Solpages depopulate a countrie.	212.b		
Scorpions perish by their young ones.	324.l		
Scorpions their stings dangerous as serpents. 324.l. how they exercise them. ibid. they cannot quench their thirst.			

The Table to the first Tome

<i>Semibracca, myrrhe.</i>	369.b	<i>Ship that brought the Obeliske out of Egypt.</i>	489.e, sunk in the haven of Oflia.	14.
<i>Annaus Seneca.</i>	411.f	<i>Ship of K. Demetrius of a mightie bigneſſe.</i>		490.g
<i>Senſes wherein men excell other creatures.</i>	305.e	<i>Shipping of ſundry ſorts.</i>		190.g
<i>Sences wherein other creatures excell them.</i>	ibid.	<i>Ship tackling, cables, ankers, &c. who denied.</i>		ibid.
<i>Septentrio, a wind.</i>	22.i	<i>Shonelars what manner of birds.</i>		292.l
<i>Seres a people deſcribed.</i>	130.i.k		S I	
<i>Seres, people famous for fine ſilke. 124.i. their nature.</i>	ibid.	<i>Sicilie ſometimes ioyned to Italy.</i>		4.i
<i>they cannot abide to merce with others.</i>	ibid.	<i>Sider or wine of apples.</i>		421.a
<i>M. Sergius (grandſire to Caſiline) his commendation.</i>	170.l	<i>Signes of ſhort life.</i>		534.i
<i>Sergius Arata firſt deuſer of oſſter pits.</i>	266.l	<i>Signifer, circle in heauen.</i>	<i>See Zodiacke.</i>	
<i>Serichatum.</i>	374.b	<i>Signes of the ſpring.</i>		586.g
<i>Serpents hauing loſt their eies will haue new.</i>	336.g	<i>Signes of good earth.</i>		505.a
<i>Serpents haue but one venomous tooth.</i>	337.d	<i>Silkewormes how to be ordered.</i>		323.b
<i>Serpents of great bigneſſe. 199.d. aſſaile foules of the aire.</i>	ibid.	<i>Siligo. 562.m. commended. 563.c. the fineſt wheat for manchet and paſtrie worke. 563.d. a fine flower. 564.h the wheat is a tickeliſh corne.</i>		564.i
<i>Serpents deſtroy a citie.</i>	212.b	<i>Silicia or Siliqua. See Fenigreeke.</i>		
<i>Serpents and lizards haue long liners.</i>	343.b	<i>Silurnus, riuer whale.</i>		243.a
<i>Serpents haue thirtie ribs.</i>	343.f	<i>Similae a fine flower.</i>		ibid.
<i>Serpents ſome of them footed like Geefe.</i>	351.d	<i>Simones and Silones, ſirames. 336.k. why ſo called.</i>		ibid.
<i>a Serpent barked.</i>	202.k	<i>Simach the fruit.</i>		389.e
<i>Serpents how they engender. 301.g. they lay eggs. ibid. chained together about vipers.</i>	302.h	<i>Sinewes bind the bones together. 345.b. being cut cauſe much paine. ibid. where they are hidden.</i>		ibid.c
<i>father of the Gracchi found two ſerpents with in his houſe. 174.i. what they preſaged.</i>	ibid.	<i>Siluer mines who firſt found out.</i>		188.k
<i>Serpents chaſed away with the perfume of harts borne. 306.k.</i>		<i>Singing whoſe inuention.</i>		189.e
<i>Serpents loue eggs. 307.a. they loue wine.</i>	ibid.b	<i>Siphylus.</i>		40.m
<i>Seruius Tullius being a child ſleeping, had a light fire ſhone ouer his head.</i>	48.g	<i>Silurus a fiſh, ſuppoſed to be a ſurgeon. 243.a. his properties.</i>		245.e
<i>Servants and ſlaves of great price.</i>	175.e	<i>of Sinewes, cords, and ligaments.</i>		345.b
<i>Sefame. See Ricinus.</i>		<i>Sirbon lake carrying a circuit of 150 miles.</i>		100.i
<i>Sefſtus a Romane Aſtronomer foreſaw a dearth. 598.i</i>		<i>Subes of two ſorts.</i>		395.f
<i>Sefſels or Siler-mountaine, helpeth bind to calue. 213.d</i>			S K	
<i>Senta, a cane in Dalmatia wherin breedeth the wind. 21.e</i>		<i>Skarlet graine of the oke Ilex.</i>		461.a
<i>Sewing with the needle or nall who firſt deuſed.</i>	188.i	<i>Skie, ſtrange fights ſeen therein in time of Octavianus, Conſull.</i>		18.a
<i>Sexes diſtinct in all plants.</i>	385.d	<i>Skil in planting directed by the nature of the ſoile. 501.e of the ſkin a diſorſe.</i>		346.f
		<i>Skin ſubtile and thin cauſeth fineneſſe of ſpirits. it hath no fellowſhip with underſtanding.</i>		ibid.
S H		<i>Skin of Crocodiles hard.</i>		346.f
<i>Shadow of the walnut tree noiſſome to men.</i>	514.k	<i>Skin of Riner-horſe turneth ianelines and ſpeares.</i>		346.g
<i>Shadomes of trees.</i>	ibid.	<i>Skin of Elephants not to be pierced.</i>		ibid.
<i>Shadow of the Palmo tree pleaſant and comfortable. ibid.</i>		<i>Skins of Gorgon women hung up in Innoes temple in Carthage.</i>		148.
<i>Shadomes of ſome trees no better than poiſon.</i>	515.a	<i>Skritchowle ſueth not directly. 277.a. one of them entred the ſanctuarie of the Capitoll of Rome.</i>		ibid.
<i>Shadomes are not to be ſcene in ſome part of India. 156.l</i>			S L	
<i>Shadomes when and where there be none at all. 35.f. where twice in the year they fall contrary.</i>	36.h	<i>Slawerie who brought in firſt.</i>		289.
<i>Shce aſſes much pained with paine of their vaders. 347.e</i>		<i>Slawes deuorred of Lamprey.</i>		348.
<i>Shce aſſes much pained with paine of their vaders. 347.e</i>			S M	
<i>Shce Beares haue foure paps apeece.</i>	348.g	<i>Smell moſt pleaſant that cometh from the earth. 505.</i>		
<i>Shcees how neceſſarie.</i>	226.k	<i>Smell of a ſnuffe of a candle cauſeth untimely birth. 159.</i>		558.
<i>their time of engendering.</i>	ibid.	<i>Smilaces.</i>		463.
<i>of Shcees two principall kindes.</i>	227.b	<i>Smilax one of the names of Teugh.</i>		
<i>Shcees which be kindly.</i>	228.k	<i>Smilax how it is deſcribed. 481.d. ſuppoſed to be unlucky and why. ibid. the name of a young damſell turned into the plant Smilax. 481.d. the uſe that the wood is employed vnto.</i>		ibid.
<i>Shcees rotten how to be cured.</i>	496.l	<i>in Smyrna a boy changed into a girl.</i>		158.
<i>Shcees without galls in Eubrea.</i>	341.c	<i>Shonelars what manner of birds.</i>		292.
<i>Shcees in Naxus haue two galls.</i>	ibid.	<i>Snail.</i>		218.
<i>Shcees good to cate downe ranke corne.</i>	576.h			321.
<i>Shearing trees when firſt deuſed.</i>	359.b			
<i>Shields burning in heauen.</i>	18.h			
<i>Shelliſh the occaſion of much royor and exceſſe in the world. 254.g.</i>				
<i>Shindles of that wood beſt. 461.e.f. they covered the houſes at Rome a long time.</i>	ibid.			
<i>Shint with proes at both ends.</i>	129.d			

of Plinies Naturall History.

Snake casteth her flogh, and by what means. 211.a. in
 Syria they hurt no Syrians, but deadly to strangers. 234.i
 Snow falleth not where sea is deepe. 46.k. how it is engendered. 29.b. how it is good for trees. 580.i

S O

Socrates kept one countenance alwaies. 166.h
 Socrates iudged the wisest man. 173.c
 Socrates neuer knowne to change countenance. 166.g
 Soles, fishes. 244.b
 Sorowes trees how they be kept long. 440.l. of foure kinde. 445.c. round as apples, pointed as peares, long as eggs. ib.
 Sorowfe Torminale, why so called. ib. d. preferred in cure. ib. e
 Sosigenes. 6.k
 South wind when it bloweth, causeth creatures to be lesse hungry. 24.g. it raiseth more surging waues than the North-wind, and why. ibid. h
 Soules of men parcell of heauen. 16.m
 Soules whether immortal. 187.a.b
 Southerne winds make trees feeble. 600.b. a rocke consecrated vnto it. 21.e. riseth from mid-day. 12.l
 Sames eat their owne Pigs. 230.g. how they be slain. ib. k
 their liuer made into a daintie dish. ibid. they vse not their teeth to strike as Bores. 337.b. enraged when they see a brimming, and how remedied. 304.g.b. that bee wild, breed but once a yeare. 231.a. raging in their farrowing. ibid.
 Sophocles entered by warning from Bacchus. 171.d
 Sowing of corne. 579.e. in the right season. 583.b
 art in sowing. ibid.
 late Sowing more dangerous than early. 584.k
 in Sowing the Moone and signes to be obserued. ibid.

S P

Spadones Dates. 449.c
 Spagos. 424.g
 Spaine, the description thereof. 87.f
 Spaike, what it is. 379.e
 Sparrowes short lined and letcherous. 290.m
 Spagnot, sweete mosse. 375.d
 Spingies, a kinde of Monkey or Marmosets. 232.i
 Spikenard. See Nard.
 Spinturnix, what bird. 277.b
 Spiders greatest enemies to Bees. 321.c. where she beginneth her web. ibid. e. hunt after Lizards. 324.i. lay eggs. ibid. k
 being young eat their mothers. ibid. the vse of their web. 323.b. drinketh vp the moisture of cloath. 330.h
 Springs colder in Summer than in Winter. 46.k. leape upward. ibid.
 Spittle noisome to serpents. 154.l
 Springs entrance when it beginneth. 590.m. 591.a
 Spring corne. 517.d
 Spiders how they engender. 324.i. why they scatter their eggs. ibid.
 Spunges of sundry sorts. 262.l
 Speights, birds called Pici Martii. 278.g. why b. effectfull in prefages. ibid. i. their admirable nature. ibid. k. no Speights at Tarentum. 285.c
 Spu. Tarpeius serued in 120 foughen fields. 170.h
 Spindle tree. 399.b. the properties thereof. ibid.
 Spadones, certaine reeds. 484.g
 Spels. 363.a
 Spiders forshew the fall of a house. 211.e
 Spleene fastened in the left side of the bellie. 343.c. thought

to be in serpents. ibid. it hindereth the running. ibid. professed runner, maketh in a hot tron. ibid. may be taken out of the bodie without harme. ibid. being taken away, the laughter is gone. ibid.
 Spikenard will not thrine in Arabia. 478.l
 Spindle and spinning whose mention. 188.e
 Spira, fants in wood. 489.a
 Spirit. See Aire.
 Spondilium, an hearbe and fruit. 378.l
 Spinter and Pamphytus, two players, how they resembled Lentulus and Metellus Consuls. 161.i
 Spring when it beginneth. 23.e
 fasting Spittle killeth serpents. 154.l
 of the Spleene. 343.c

S Q

Squali, fishes. 248.l
 Squilla flourisheth thrice, and flourisheth three times of ploughing. 592.b
 Squannath where it groweth. 395.a. the best, and price of it. ibid.
 Squirrels, their properties. 218.g

ST

Stalle, the best Murrhe. 368.m
 Stadises, a towne in Egypt where the fall of Nilus maketh men deaf. 145.e
 Stagonium. 367.e
 Stagonitis. 378.a
 Stag enniou to man. 213.c. in danger seeketh to man. ibid. white Stags of Q. Vertorinu. 214.k. enemies to serpents. ib. long liners. ibid. l. their flesh good for the liuer. ibid. haue under their tongue twentie little wormes. 333.f
 Stags and Hinds. 213.c. they teach their young to run. ibid. how they behaue themselves when they be hunted. ibid. a. their sundrie qualities. ibid. e. f. how they swim ouer sea. 214.g. they cast their hornes yearly. ibid. how their age is knowne. ibid. b
 Staphylodendrum, what it is. 467.c
 Stature of man decreaseth. 165.a
 fixed Starres and starrie skie presage future weather, how and after what sort. 612.i. k
 Stars predominate after the Spring of Equinox. 592.k
 Stars fixed, their rising and setting to be taken two waies. 587.e. d.
 Stars none lesse than the Moone. 19.d
 Stars seene with the Sunne all day long. 17.d
 Stars fixed which haue influence till the coming of Favonius. 590.i
 Stars & signs whether to be regarded for Seednes. 584.l. m
 Star fish. 269.e
 Star-lizards, stellans cast their skins. 213.b. their venomous. ib.
 Stars wandering. See Planets. to them attributed the cause of things when they begin to growe, we the seas. 597.k
 Stars or Planets not appointed for euery man according to his state or condition, as some vainly haue imagined. 5.c
 Stars obliet in nagation first by whome, &c. 190.a. their shooting and falling, what it is. 5.d. i. their power and operation. ib. that be fixed, shine as well by day as night. 9.f
 their unequal rising. 34.i. whether to be regarded for seednes. 584.l. m. rising and setting of which be diuersly taken. 587.c. d. predominant after the Spring Equinox. 592.k. how they presage future weather. 612.i
 Stellas

The Table to the first Tome

Stellus, what it is. 496.k
Stellions live onely by deaw and spiders. 325.d
Stares could parle Greeke and Latine. 293.e
Sterlings depart for a season. 284.g. *their manner of flight.* ibid.b
Stephanos Alexandri. 453.a
Stefichorus feared the eclipse of the Sunne. 9.a
Starch. See Amylum.
Starres running too and fro. 18.i
Statue in men and women is now decayed. 165.a
Stewes for fishes who denised. 266.m
Straw served for bedding. 551.a
Strength of body many examples. 166.k
Stimmaria. 381.d
Strabones, who they be properly. 335.e
Stimphalides cruised on the head. 331.a
Straw how to be used and ordered. 602.l.m
Stones greased and enflamed with fire. 48.g
Stones of beasts how they are placed. 352.k
Stone quarries who first digged. 188.i
Stones found in trees. 489.b.c
White Stones in the maw of young birds, used in Magicke. 343.b
Stone of a strange power. 42.h
Stones raining downe. 28.h
Stone in young heifers good for women. 343.c
Stones raining downe. 19.c
Stomacke how it is framed, and the use. 340.g
Stockdoves out of the way for a time. 284.b. *fit upon their egges, Cocke and Hen by turnes.* 300.k
Storks esteemed better meat than Cranes in old time. 282.g
their manner of flight. ibid.h
to kill a Storke, felonie in Rhessalie. ibid. k. *to their parents.* ibid.k
no Storkes within eight miles of the lake Lurinus. 285.c
Starres and other flames scene about the Sunne. 17.d
Stay-ship fish. See Echeneis.
Straw, how it is a signe of good ground. 503.a
Straw of barley, the best. 562.k
Strix, a word of cursing. 347.d
Strabones, families in Rome, why so called. 335.e
Strategia, what they be. 119.d
Strawberrie tree. See Arbutus.
Strobos plant Ladum. 370.h
Strobon in Ceraunia. 321.a. *a sweet tree.* ibid.
Storax, a sweet odour. ibid.c. *the effects thereof.* ibid.
Storax (Calamita.) 378.g
Styrax or Storax the tree. ibid.
Styrax gum of diuerse kinds. 378.k
Struthes, what Quinces. 436.b
Struthopodes, what people. 156.b
Sturgeon fish much set by of our ancestors. 245.e

S V

Subis, a bird. 277.c
Sugar. 362.k
Suns motion, what it is. 13.f. *wherefore it burneth not the earth.* 14.m. *what Summer we shall haue.* Democritus
bowed by the Solstice. 590.g. *how many furlongs from the cloudie region to the Sunne.* ibid. *how to know the height of it from the earth up to the Sunne.* 15.a
Summer, what kinde of disb. 230.l
Suns heat causeth marvellous shapes in Egypt. 146.k
Superfluitie of meat alwaies dangerous. 356.b
Sublones, a kinde of flag. 331.c
Subolanus wind. 22.d
Sunne, a diuine power. 36.e. *his Eclipse. See Eclipse.*
Sulpitius Gallus first found the reason of the Eclipse. 8.l
Sulpetia, a Matron that consecrated Venus image. 173.f
Superstition in chusing Marger. 4.i
Superfluitie in precious ointments. 384.g.b
Superfluous expence in Seeling and inlaid workes. 494.h
Sun greatest of the Planets. 3.b. *the soule of the world.* ib.
Island of the Sunne described. 132.
Suns many scene at once. 17.f. *in midwinter maketh tempests.* 20.g
Suns motion, what it is. 13.f. *the strange colour appearing therein.* 17.g. *the signes of weather depending of their rising or setting.* 611.a.b. *lends his light to the other stars.* 3.c
why the Sun departeth from vs in Winter. 8.g.h
Sunsteeds when. 13.i
Sunne his race. 2.k
Sunne the greatnesse thereof. 8.g. *by how many demonstrations it appeareth bigger than the earth.* ibid.
Sunne, the best prognosticator of weather. 611.a
Signes depending on the Suns rising or setting. 611.a.b
Instead of Summer. 587.e. *what weather we shall haue.* Democritus
getteth by the Solstice day. 590.g
Sunne his power. 44.b. *fed by the salt sea.* ibid.l
Sumach, a plant. 389.e
Sunnes Oxen, whence the fable arose that they were kept in stall. 43.f
Supernata, a kinde of Abricot. 436.l
Sucula, what starres. 592.l
Surname Stolo, whence it came. 489.c
Surus the name of an Elephant. 194.i
Sussum. See Oile of Lillies.
Superstition. See more in Conceptions.

S W

Sweate of the Pharnaces dangerous to be touched. 155.b
Swine when they goe a brimming. 229.f. *how long they breed.* ibid. *eat their owne Pigs.* ibid.g. *their age.* 230.b
their diseases. ibid. *they know the swinards voice.* ibid.i
how they are knowne sicke or sound. ibid. *their subtiltie and wit.* ibid. *their flesh yeeldeth varietie of dishes.* 230.k. *haue ten ribs.* 243.f
Swallowes feed flying. 284.b. *they are indocible.* 295.b
of diuerse sorts. 288.h. *how they feed and keepe cleane their young birds.* ibid. *their nests make a bank to Nilus.* ibid.i. *how they build.* ibid.g. *they fortifie an Island yearly.* 288.i
Swallowes enemies to Bees. 320.i
young Swallowes being calcined, doth cure the squinancie. 288.k
Swallowes hauing lost their eyes, will haue new. 336.g
they are gone in Winter. 283.a. *why they build not in the citie Thebes.* ibid.l. *nor in Byzia.* ibid.
wild Swans how they flie. 282.i
Swans sing not before they die. 284.l
of Swiftnesse in running many examples. 166.m

S Y

Syrians warre against Locusts. 328.b
Sylke-wormes how to be used. 323.h
Sylla Dictatour died of lice. 329.d
Sybilla excellent at diuination. 173.d

of Plinies Naturall History:

Syria, a renowned region, the description thereof. 99.f
 Syrenes fabulous birds. 296.k
 Syagri, kinde of Dates. 387.b
 Sycomore tree. 389.d. passing fruitfull. ibid.
 Syraum, what it is. 416.l
 Syce, what kinde of rosin. 463.a
 Syene, a towne at noontide in the middest of the Summer, no shadow is to be seene there. 35.f
 Syringias, a kinde of Cane or Reed. 483.b
 Syrites, a stone found in a Wolfes bladder. 344.g
 Syrtice, people that haue legs like Snakes. 156.b

T A

Tader river. 53.d
 of Tales a discourse. 352.l
 Taprobane Island. 157.a
 Taprobane the manner of the people, and their long life. 131.b
 Taprobane thought to be a second world. 129.b
 Taprobane Island description thereof. ibid. b. king of Taprobane, admitted the Romans vpon relation of their iustice and seeing their peeces of coin all of equall weight. 129.f
 the manner & fashions of the Island of Taprobane. 130.k
 Tamarix. 398.m
 of Tastes thirteene kindes. 448.l
 of Tallow. 344.k
 Tallow wheither it lieth in the breast. ibid.
 Tales there be of Scritch-owles feeding young infants with their milke. 347.c
 Tanaquils distaffe and spindle. 228.g
 Tarre out of what tree it is boiled. 464.b. whereto it is employed. ibid. the manner of drawing it. ibid.
 Taprobane and Toidis, countries most fruitfull of pearles. 254.k
 Tarum. 298.m
 Tarandus, what beast. 215.c
 Tasts of sundrie sorts in hearbes. 449.b
 Tasting equall to all creatures. 306.l
 Tasting common to all creatures. ibid.
 Tasts of meats in all creatures but man, is at the lip of the tongue. 339.b
 Taurus, a mightie mountaine. 105.e. the diuerse names thereof. ibid.
 Taurus a bird lowing like a Bull. 293.a
 Tantalus citie swallowed vp. 40.m
 Tayles of serpents being cut off will grow againe. ibid.
 Tayle in all creatures except men and Apes. 352.i. serueth to necessarie vse. ibid.
 Tayles of Oxen and Kine greates and biggeft. 16.m
 Taygetus, an hill. 37.d

T E

Teeth their nature, sundry kindes and vses. 164.i.k
 their presages. 164.l
 Teeth of Vipers hidden within their gumbes. 337.d
 Teeth of sundrie kindes, and how they be set, and to what vse; &c. 337.c. 338.g
 Teda or the Torch-tree. 462.m
 Tepidare river in Italie. 545. it is warme in Winter. ibid.
 Temple of Iupiter Hammon in Merse in Egypt. 146.i
 Tempests diuerse kindes thereof. 25.e

Temetrum. 99.f
 Temphis, the pitch of the mountaine. 181.e
 Temerinda the name of Meois, and why. 118.i
 Ternerum, what it is. 2.b
 Tenhorania, intimes past neere vnto the seas. 39.e
 Tenera terra. 582.g
 Tenyrites enemies to Crocodiles. 209.d
 Tennise play whose inuention. 190.g
 Tepidare, what it signifieth. 545.a
 Terra Tenera, earth as good as can be imagined. 504.k
 Terra pulla, a tender and mellow soile. ibid.
 Teramnon. 575.d. 62.m
 Terminatza, a feast instituted by king Numa. 549.e
 Teredines what wormes. 492.b
 Terebintb wood fine. 490.b
 Territorie of Mutina. 48.g
 Territorie of Sabines and Sidicines. ibid.f
 Terpetine the clearest rosin. 423.f
 Terebintb or Tepidantree. 389.a. the kindes thereof and the fruit. ibid.b
 Terpetine how it is drawne from the tree. 465.b
 Terentine, pine nuts. 495.e.f. witteeth. 338.g
 Teeth serue not onely for grinding our meat. 164.k
 Tetartemorion, what quadrant. 182.g
 Tettigonia, a litle kinde of Gryshopper. 325.e

T H

Thalio Milefius among the Greekes first found out the reason of Eclipses. 81.f
 Theophrastus, one of them that wrot of the Romanes. 58.i
 Thracia the description thereof. 77.f
 Thunder and lightening the reason thereof. 20.m
 Thorne roiall. 400.l
 Thirskie thorne. 492.c
 Thrasymenus lake. 48.b
 Thripes. 492.b
 Thybians, their strange nature and eye-sight. 155.b
 Thucidides called from banishment. 172.g
 Thracians how they proue their fortune. 176.i
 Thracians how they measure their happinesse. ibid.
 Thrasching practised sundry waies. 602.k

T I

Tibur citie founded by Tiburts, more ancient than Rome. 415.b
 Tiberius Caesar his saying of Sarnell in mines. 414.b. hee could see by night. 334.i
 Tib. Caesar wrote a Poem of the comet called Acontus. 15.e
 Tibuli, what trees. 462.e
 Tickes want meanes to auoid excrements. 330.g
 Tigris the river where it begins, and the diuerse names it hath. 137.a. runneth through the lake Arethusa. ibid.
 Tingitania prouince, the description thereof. 92.k
 Tinea, what wormes. 492.h
 Timarchus the Paphian. 338.g. had double course of seeth in each law. ibid.
 Timber trees in what way generally they are employed. 491.f
 Tiltbes fine. 380.g
 Tissue cloath whose inuention. 228.i

T M

Tmolus the hill well planted with Vineyards. 107.e

T O

Tokens of good honey. 317.b
 Tokens of good Bees. ibid.d
 Kkk 2

The Table to the first Tome

Tokens of death. 183.e
 Tokens of life uncertaine. *ibid.*
 Tooles for smiths who first devised. 188.b
 Tokens by the eares of beasts. 333.d
 Torpedo, the Crampefish. 261.d
 Nonellius Torquatus Tricongius, a worthie wine-bibber. 427.d.
 Tortoiser bath a kidnie alone of them that lay eggs. 343.e
 Tortoisers of the sea. 241.b
 Tortoise shels as much as will couer houses. 134.i
 Tortoise his lungs without blond. 341.a
 Tortivum wine, what it is. 425.b
 Towne, by whome first built. 188.b
 Towne wals and towers who first reared. 188.b.i
 of Tongues. 338.m.339.a
 Tongues of serpents and libards three forked. 338.k
 Tongues of Lizards two forked. *ibid.*
 serpents Tongues as small as haire. *ibid.*
 Tongues of Crocodiles cleave to their pallas. *ibid.*
 Tongues of Lions and Libards vnaue. *ibid.*
 Tongues of Cats bring madnesse. *ibid.*
 Tongues of Bees very long. 339.a
 Tonfilla, spongieous kernils in men. *ibid.*
 T R
 Trabea, K. Romulus his mantill of estate. 260.b
 Trafficke first devised. 187.e.188.m
 Tragelaphis his nature. 214.m
 Tragum, what it is. 562.g
 Trees the temples of the gods. 357.b. how they grow. 508.l
 Trees that neuer grow out of their owne kinde. 509.b. by
 what meanes they grow. 508.l. what trees bring forth
 young times at the root. 510.b. what trees grow by prick-
 ing into the ground. *ibid.* how to be removed. 512.m
 not in windie weather. 513.e. their roots not to be hand-
 led violently. 514.g
 Trees which be slow in growth. 515.e. which be forward in
 fruit. *ibid.* their shoots hinder growth. *ibid.* would over-
 spread the face of the earth, if they were not repressed.
ibid. how they grow one upon another. 516.l
 Trees ought to be planted in Autumne. 522.m
 Trees of diuerse natures how to be conioined. 123.d
 Trees planted for the vse of Vines. 534.l
 Trees of much shadow not good for Vines. 535.a
 Trees admirable about the sepulchre of Protefilaus. 495.c
 no Trees exempt from the worme, blasting, and ioynt-ach.
 539.a.
 Trees hunger-starued, headlesse. *ibid.*
 Trees more or lesse subiect to diseases. 539.b
 what Trees soonest be worme-eaten. *ibid.*
 Trees troubled with certaine flies. 541.c
 Trees when they are said to die or to be sicke. 440.g
 Trees blasted with certaine winds. 541.c. shedding of leaues
 a signe of their recoverie. *ibid.* d. frozen to death in Pon-
 tus and Phrygia. *ibid.* soone die hauing once lost their
 heads. 542.h
 Trees that beare rosin, abide any bruise or wound. *ibid.*
 Trees growing thicke, kill one another. *ibid.*
 Trees prospering without leaues. 543.a
 Trees changing their colour from blacke to white. *ibid.*
 Trees changing from better to worse, are unlucky. 543.b
 Trees sunke and swallowed up of the earth. 443.d
 Trees yeelding many prodigious foretokens. *ibid.* remedies
 of Trees diseases. 544.b
 Trees when they desire to be watered. *ibid.*
 Trees turning their leaues in the Summer Sunne. 20.b
 Trees and timber peeces of monstrous length. 489.d
 Trees troubled with Ants, how to be remedied. 547.d
 Trees of India exceeding high. 155.d
 Trees forced to grow by art. 498.b
 Trees standing upon the North, doe like best. 500.g. why
 sometime they lose their fruit. 500.h. nourished by
 raine. 500.i
 Trees standing Southward, soonest shed their leaues. 502.m
 no Trees in some countries. 545.m
 Trees are not loaden with fruit after one and the same ma-
 ner. 475.b
 Trees more fruitfull in age than in youth, and contrariwise.
ibid.
 what Trees line longer than other. 475.e
 Trees age soone by bearing. 477.e
 Trees bearing fruits diuersly. *ibid.*
 Trees differ in the manner of their growth, either with sin-
 gle stockes or manifold bodies. 476.b.i
 Trees differing in root. 477.b
 Trees of longest continuance. 494.l.m
 Trees replanted that haue bene blowne downe. 477.e
 Trees fall of themselves rise of their owne accord. 478.g
 Trees fallen, topped and squared, and yet reuine. 478.h
 Trees grow naturally by three manner of meanes. *ibid.*
 Trees and shrubs will not all grow in euerie place. 478.k
 the reason thereof. *ib.* their Homogeneous or substantiall
 parts. 486.b. their bonie substance or heart. *ibid.* their
 fat or flesh. *ibid.* their marrow, suetes, blond, and
 veines. 487.c.d
 Trees of what age best for timber. 488.g
 Trees deliuered of a birth of harneie. 489.b
 Trees growing in the sea. 402.g.h
 Trees overthrowne by tides. *ibid.*
 Trees male distinguished from the female by the ax. 463.c
 Trees distinguished, according to the places where they lone
 to grow. 468.g.h
 Trees some sauage, others civile. *ibid.*
 Trees that lose not their leaues. 469.a
 Trees greene alwaies in the head, shed leaues in the water
 boughes. *ibid.*
 no Tree about Memphis in Egypte sheddeth leaues. 469.e
 Trees that bud, though they blossome not. 472.g
 what Trees haue three springs or buddings in the yeare. *ib.*
 Trees how they bud, blossome, and beare. 472.d. 473.a.b
 Trees bearing no fruit at all. *ibid.*
 Trees unfortunate and accursed. *ibid.*
 Trees soonest forgoing their blossome, and shedding their
 fruit. 374.g
 Trees fruitlesse by occasion of the soile. *ibid.*
 Trees male whether they beare not. *ibid.*
 Trees of shortest life. 495.c
 a Tree fish. 236.g
 Trebus honoured for bringing downe the corn market. 511.e
 Trenches and ditches for Vines how to be made. 529.a
 Tribes Rusticke in Rome. 550.m
 Tribes Vrbane. 551.a
 Tribes a fish. 244.e
 Trimenon wheat, what it is. 561.b
 Triticum. 563.a
 Trixis.

of Plinies Naturall History.

Trix. See Ricinus.
 Tritanus, a man of extraordinarie strength. 166.k. his
 some. ibid.
 Triticum. 561.b
 Tritons, fishes, discovered at Lisbon. 236.b. what they
 are. ibid. how they breed.
 Troas. 241.d
 Trachos, a fish. 109.c
 Trachos, a fish. 266.i
 Troglodytes, people about Ethiopia swifter than horses.
 157.b. eight cubits high. ibid.
 Troupes of horsemen hidden under the boughs of a figtree.
 155.d.

T V

Tuberes of two sorts. 438.g
 Tuberes, what fruit. 437.f. when they and Iuinbes were
 brought into Italie. 438.g
 Turneps, how, where, and when to be sown. 571.a.b
 Tullus Hostilius first ware the robe Pretexta. 260.b
 Tullus Hostilius killed with lightning, and why. 26.k
 Tunia, their historie. 242.m
 Tunie-fishes ready to overturne a ship. 235.e
 Turbo the name of a blast. 25.a
 Turbot, a kinde of fish. 247.d
 Tuscanes, their opinion of lightning. 26.g
 Turners craft, whose inuention. 188.l

T W

Twins dangerous to the mother if they bee of both sexes.
 158.i.

T Y

Tympania, a kinde of pearles. 255.b
 Tybbe. 563.a
 Tyriamethyst, a double purple colour. 261.a
 Tyrus, the description thereof. 102.g
 Typhon, the name of a whirlepasse. 24.l. how mariners may
 prevent the danger thereof. ibid.
 Tyrannicall rule, who first practised. 189.a

V A

Valour, sundrie examples thereof. 170.b
 Valerius Antias a writer. 48.g
 Valeria, unfortunate to the place whither shee was carried.
 164.i.
 Varietie of mens speech and shape is wonderfull. 153.d
 Vappa, what it is. 424.k
 Vari, who they be called properly. 350.k
 Varices i. smelting, veines more ordinarie in men than in
 women. 350.k
 V B
 Vbians fat their ground with any kinde of earth. 506.k
 V E
 Vedius Pollio his pastime to see lampries devour men. 248.i
 of Veins and Arteries. 345.c
 Veine in timber called Fertile. 493.c
 Veine in trees what it is. 486.k
 Veionis in the Capitoll. 491.d
 Venetians, from whence. 115.d
 Venus Cluacina. 451.a. Venus Murtea or Myrtea. ibid.
 Venus planet, her nature, motion, excellencie, & names. 6.l. i.
 her motion making two stations. 10.i. why shee neuer
 departeth from the Sun more than 46 degrees. 12.b

her colour. 130.
 Venerium, Cicer, kinde of pease. 570.g
 Vergilia, starres in the taile of Taurus. 20.k. called the gar-
 ment hanging out at the brokers shop. 588.k
 Vermin, as lice, &c. in sea as well as in land. 264.g
 Vermin hurtfull to trees. 540.m
 Veruetum, what it is. 578.m
 Verulenus Egalus, a singular good husbandman. 411.c
 Vespasian Augustus his praise. 4.g. In his Consulship nei-
 ther Sun nor Moone scene in twelve daies. 9.e
 Vesper the starre, why Venus so called. 6.d
 Vesperinus, rising or setting of fixed starres. 587.d
 Vetches when to be sown. 572.i. not chargeable. ibid.

V I

Viatores, what officers at Rome. 552.b
 Vicalia, a festiual holiday. 600.g
 Vine the nature thereof. 530.b
 Vine planting and pruning, who first practised. 188.m
 Vine-seeds doe temper the hot ground Carbunculus. 503.b
 Vine hath the sense of smelling. 542.l
 Vine-terribles away from the Radish and Lawrell. ibid.
 Vines of five sorts. 528.i
 Vines take most harme in blouming time by raine. 540.m
 crested upon trees beare latest. 536.b. wedded to trees,
 when to be cut. 535.b. how many may be reared to one
 tree. ibid. when such are to be cut. 535.b. when vines
 are to be pruned. 533.b
 Vine-leaves to be cleaneed once in the spring. ibid.
 Vine frames and trailes how they ought to be made. 532.k
 Vine bearing before the seventh yeare dieth. 531.c
 Vines to be repressed and not cockered. 531.e
 Vine frames of what best. 530.b
 Vines to be set in a drie day. 529.b
 Vine hateth all pot-herbes or woorts. ibid.
 Vines in what order to be planted. 529.c
 Vine trees how they be killed. ibid.
 Vines how many in an acre. 530.c. ought to be pruned
 once a yeare. 546.g
 Vines full of caricices not to be trusted. 530.b
 Vines yielding a double vintage yearly. 581.e
 they die with much bearing. 475.d
 Vines the elder beare the better wine, but the younger more
 plentie. 475.c
 Vines bearing thrice a yeare. ibid.
 Vines their diseases. 540.i
 a Vine in the Forum at Rome. 444.g
 Vine Heluenaca. 408.k. of two kindes. ib. very plentiful. ib.
 Vine Arca. ibid. it loneth not Italie. ib. it is neuer blasted. ib.
 Vine Spionia, or Spinea. 408.l
 Vine Buslica. ibid.
 Vine Venicula. ibid.
 Vine Apiana, why so called. 407.b
 Vines, Stracula, Sirculus, Numisiana. 408.m
 Vine Murgentina. 409.a
 Vine Pompeiana. ibid.
 Vine Merica. ibid.
 Vine Tudernis. 409.b
 Vine Florentia. ibid.
 Vine Talpana. ibid. why so called. 409.c
 Vine Etesia. 409.b. why so called. ibid.
 Vine Confemina. 409.b
 Vine Irtiola. 409.c. Vine Pumula. ibid.
 Vine

The Table to the first Tome

Vine Bananica.	409.d
Vine Gaurania.	ibid.
Vine Felerna.	ibid.
Vine Tarentine.	ibid.
Vine Duracina.	409.f
Vine Ambrosica.	ibid.
Vine Orthampelos.	ibid.
Vines Dactylides. 410.g. why so called.	ibid.
Vines Columbine.	ibid.
Vine Tripedanea.	ibid.
Vine Rhetian.	ibid.
Vine Alexandrina.	410.k
Vine Narbonica.	ibid.
Vine Scantiana.	411.b
Vines Fundane.	ibid.
Vines Taurominitane.	414.i
Vine Theriaca.	414.k
Vines, Libanios, Appendros.	423.a
Vine compluviana, what it is.	ibid.
Vine fess how they may grow without their marrow or pith	528.l
528.h. how they beare grapes without kernels.	ibid.
their distance one from another. 527.c. full of ioynts,	527.b
fruitlesse.	527.c
Vintage time.	605.e
rules fornting for Vintage time.	ibid.e.f
wild Vine Labrusca, the roots and grapes good for courru-	420.k
ours.	525.b
Vine props and railles which be best.	525.b
Vine tendrils and burchens how to be ordered for the table.	423.c.
423.c.	527.a
Vines afford most plants of all other trees.	520.b
Vine tree how to be grafted.	422.g
Vines draw into them the taste of herbes and plants grow-	422.g
ing neere unto them.	527.b.
Vineyard how to be bounded. 529.b. how to be ordred with	527.c.
smallest expence. ibid.f. ought to be exposed to the Sun.	414.b
Vineyards Statana.	424.k
Vinegre how it is made, and the uses thereof.	412.a
Vinegre of Cypresse figs.	ibid.
Vinegre of Alexandrine figs.	445.a
L. Vitellius stored his ferme with fig trees.	599.a
Vis maior, what it is.	
V L	
Vlysses ship turned into a rocke.	
V N	
Vnedo, the fruit of the Arbutie tree.	
V O	
Voluox, a worme hurtfull to Vines.	
Volta the name of a monster.	
Vopiscit, who be so called.	
Vortex, the name of a stormie blast.	
V R	
Vrebus of the sea.	
Vrium, what kinde of adde egge.	
V T	
Vterus or loci in a woman, what part.	
V V	
Vulcans temple built by Romulus.	
Vulturum, what wind.	
Of Voices, a discourse.	

W A

W Agons and chariots who first made.	188.l
Walwort, a weed naught for ground.	508.g
Walnuts employed at weddings. 445.c. and why.	ibid.
Walnut trees brought out of Persia by commandement of	445.f.
kinge.	ibid.
Walnut, why called Persicon and Bastlicon.	ibid.
Walnut named in Greeke Caryon, and why.	ibid.
Walnut huskes and the young nuts how to be used.	446.g
Walnuts differ onely in the shell.	ibid.
Walnut shells diuised in twaine.	ibid.
Walnuts called Inglandes, and why.	ibid.i
Walnuts brought first into Italy by L. Vitellius.	ibid.k
Walnut tree wood cracketh before it breaketh.	492.m
Water an element. 2.l. the roundnesse thereof. 31.e. the be-	32.h
nefit it bath by the earth, and the earth by it.	449.a
Water of what tast.	44.m
Waters streb run aloft the sea, and why.	449.a
Watering choriseth corne and kildeth grasse about Salma	544.m
in Italy.	134.m
Water bringeth forth greater lining creatures and more	581.f
plentie than the earth.	545.a
Water verie materiall for corne fields.	439.d
overflowing corne fields as good as a weeding in some	313.d
place.	
Warden peares.	
Wax made of all herbes saue Dockes and Goosefoot.	

W E

Weaning whose denise.	188.i
Weeding of corne.	580.l
Weeds choking corne and pulse.	545.a
Weights and measures whose denise.	188.l
Weapons and armour whose invention.	189.a.b
Wefts how to be kept from preferred fruits.	441.f
Wefts feed greedily upon serpents.	355.c
Western wind Faronius a husband to all plants, and to	471.d
certaine marcs.	339.c
Wezando, what it is.	

W H

Whales and Whirlepoles. 235.b.c. as long as foure acres of	235.c
land.	551.b.c
Wheat sold at Rome for one As by the Modius.	558.k
Wheat how it is spiked, eared, and ioynted.	ibid.
Wheat of Italie best. 559.c. other countries compared with.	559.e
ibid.	560.b.a
Wheat of Baotia commended.	560.a
Wheat of Italie praised by Sophocles the Poet.	ibid.m
Wheat esteemed by weight, and so compared.	561.a
Wheat different in the straw or stalk.	562.k
Wheat of Thrace, a three moneths corne.	562.m
Wheat of Thrace, a two moneths corne.	
Wheat subject to the mieldew.	
Wheat of sundry kinde differ in name.	
Wheat what proportion it should yeeld in meale and flour.	
563.e.f.	
common Wheat Triticum exceeding fruitfull. 564.m. the	
wonderfull and incredible encrease of wheat in Africke.	
565.a.	
Wheeler, a kinde of fishes.	236.g
Wilding.	

of Plinies Naturall History.

Wilding apples.	438.m
a wedded Wife turned to be a man and a husband, and con-	158.b
trarywise.	ibid.
Willowes of many sorts. 484.l. their manifold uses in pear-	484.m
ches, trailes, props, and bindings.	ibid.
red-Willowes good both to wind and bind.	ibid.
Willowes fit for wicker worker.	ibid.
as gainfull to the master, as corne fields, meadowes, and	
toline roms. 485.b. See more in Wickies.	
Wings of Bats diuised into ioynts.	347.a
Winds vaine in the region of the aire. 19 c how they arise	
and whence. 21.c. their natures and obseruations.	
22. 23. &c.	
Windpipe, what it is.	339.c
the obseruation of winds good in husbandrie.	608.i
Winds who first distinguished.	189.d
Winds how they may be knowne distinctly one from ano-	608.g
ther.	428.i
Wine a most pleasant liquor to be used inuarily.	189.m
of Wines 195 sorts.	425.d
Wine who first delatied with water.	ibid.e
Wine congealed into ice.	ibid.b
Wine lees maintaine fire.	425.a.b
Wine how it is knowne to decay.	425.d
Wines how to be seasoned and medicined. 425.a.b. how to	
be ordered, prepared, and seasoned.	
Wines allowable for sacrifice and the seruice of the gods.	
423.c.	
Greeke wines recited in sacrifice.	ibid.
Wines when they grew in request at Rome.	418.b
Wines turne slower and reconer of themselves.	423.b
Wines reduced into 80 kindes.	418.g
of Wines foure principall colours.	416.l
Wine how to be tunned and kept.	425.c.d
Wine-cellers how to be ordered.	ibid.e
Wine vessels how to be placed in the cellar.	ibid.
Wine vessels how to be made and chosen.	427.d
drinking Wine fasting.	ibid.
Wine of strange and wonderfull effects.	422.l
Wine causing women to be fruitfull. ibid. procuring mad-	
nesse. ibid. drining women to slip their birth.	422.m
disabling for the art of generation.	ibid.
Wines spiced and compound forbidden by Themison.	422.k
Wines of trees and shrubs.	ibid.h
Wines of sundry beebes and roots.	ibid.g
Wine Phoricean.	416.k
Wine Cicilibites.	ibid.l
Wine Halysium.	ibid.
Wines sweet of diuerse sorts.	417.a.b.c.d
Wine Aiglances.	417.b
Wine Dulce.	ibid.
Wine Diachylon.	ibid.
Wine McInters. 417.d. how it is made.	ibid.
Wines alter according to the climat and soile where the	
Vines grow.	415.b
Wine shared among the Romanes. 418.k.l. Forbidden in	
sacrifice.	ibid.h
Women in Rome not allowed to drinke wine.	418.k
Women punished for drinking wine.	418.k.l
Wines aromatized.	419.a
Wines Greeke.	419.f

Greeke wine given in a congiarie by L. Lucullus at Rome.	420.g.
Wine of Chios prescribed for the Cardiacapassio.	420.g
left by Hortensius to the quantitie of 10000 barrels when	ibid.
he died.	ibid.
Wines given in a congiarie by Iul. Cesar, Dictator.	420.b
Wines artificiall.	420.i
Wine Ombacium.	ibid.
Wine Oenanthinum.	ibid.
Wine Adynamon. 420.l. how it is made. ibid. the use	
thereof.	ibid.
Wine of Miller.	420.l
Date wine. 420.m. how it is made.	ibid.
Fig wine, Sycites. 421.a. wine of Lotus.	ibid.
Wine of Carobs.	ibid.
Wine Rhoites, of Pomegranats.	ibid.
of Gornel or wild cherries. ibid. of Modlers. ibid. of Cer-	
voises. ibid. of Malberies. ibid. of Pen-nuts.	
Wine of Myrtles how it is made.	421.b
Wine Myrtidannum.	ibid.
Wine of Beterra. 414.l. of Tarentum. 414.m. of Seruitt-	
um. ibid. of Consentia. ibid. of Tempia. ibid. of Ba-	
via. ibid. of Lucania.	415.a
Wine of Thurium.	ibid.
Wine of Lagaria. ib. brought into credit by Messala.	ibid.
Wine of Trebellia. ibid. of Caulinum.	ibid.
Wine Trebulane. ibid. Trifoline.	ibid.
Wine of Pompeij.	ibid.
Wines of Spaine.	415.a
Wine of Laleratane.	ibid.
of Tarracon, of Arragon, of Lanrone.	ibid.
Wines of the Balear Islands.	ibid.
Wine of Thasos. 415.e. of Chios.	ibid.
Wine Arinsium.	ibid.
Wine of Lesbos ibid. of Clazomane. ibid. of mount Tmo-	
lus.	ibid.
of Sicyone, Cypresse, Telmessus, Tripolis, Berytus, Ty-	
rus, Sebennys.	415.f
Wine Hippodamantian. ibid. Cantharites. ibid. Gnidian.	
ibid.	
Wines of Catacecanmene. 416.g. of Petra. ibid. of My-	
cone.	ibid.
Wine Mesogites.	416.g
of Ephesus. ibid. of Apamea.	ibid.
Wine Protaginm.	ibid.
Wines of Pontus, Naspercenties, Oracoticke, Oenastes, of	
Leucas, of Ambracia, of Peparethm.	416.g.h
Wine Leucochrum.	416.i
Wine Thetalsasomenum.	ibid.
Wine Thalasites. 416.k. why so called.	ibid.
Wine Greeke.	416.k
Wine Scyzinum, Itcomelis, Lestispagites.	422.g
Wines of garden beebes.	421.b
of Radish. 421.c. of Sparage.	ibid.
of Savorie. ibid. of Maioram.	ibid.
of Origan. ibid. of Smallich seed.	ibid.
of Southernwood. ibid. of wild Mints.	ibid.
of Rue. ibid. of Nepor Calaminth.	ibid.
of running Thyme. ibid. of Horehound.	ibid.
Wine of Nauers.	421.c
Wine Squillitcke.	ibid.
Wines of flowers.	421.c
Wine	

The Table to the first Tome

<i>Wine rosat, how it is made.</i>	421.d	<i>World, what it is. 1.c. everlasting and infinit. 1.c. un-</i>	
<i>Wine of Celtricks spike-nard.</i>	ibid.	<i>measurable,</i>	1.d
<i>Wine Ipcras or aromatized. ibid. after what sort.</i>	ibid.	<i>Worlds, not innumerable. 1.d. of a round forme.</i>	1.f
<i>Wines condite, or Pepper wines.</i>	421.e	<i>World visible, a hemisphere.</i>	2.g
<i>Wine Nectarites, why so called.</i>	ibid.	<i>it turneth round in foure and twentie houres.</i>	2.g
<i>how it is made of Elecampane.</i>	ibid.	<i>whether in turning it make an audible sound or har-</i>	
<i>worme-wood Wine.</i>	ibid.	<i>monic. 2.b. whether the bodie thereof be all smooth. 2.b</i>	
<i>hyssope Wine.</i>	421.f	<i>World certaine and yet uncertain. 1.e. containing all things</i>	
<i>ellebore Wine.</i>	ibid.	<i>within it selfe.</i>	ibid.
<i>Scammonite Wine.</i>	ibid.	<i>World and Weanen all one.</i>	1.b
<i>Winkles or Sea-snailles, what fishes. 253.c. of sundry sorts.</i>		<i>World, why called in Greeke $\kappa\alpha\upsilon\sigma\epsilon$, and Mundum in Latine,</i>	
<i>ibid.e.</i>		<i>2.k. the geometricall dimension.</i>	14.l
<i>what Winter we shall haue knowne by Bruma, according</i>		<i>Wormes hurtfull to standing corne.</i>	544.k
<i>to Democritus.</i>	589.f		
<i>Witchcraft by praising and eye-biting.</i>	155.a		
<i>Wit, sundrie examples thereof.</i>	171.b		
<i>Withie tree, called Spilfruit. 474.b. it groweth quickly if</i>			
<i>it be pricked onely into the ground.</i>	ibid.		
<i>Withies or willowes where they loue to grow.</i>	484.l		
<i>exceeding commodious. ibid. compared with poplers and</i>			
<i>alders.</i>	ibid.		
W O			
<i>Women bearing but once in their life time.</i>	156.m		
<i>Women seldom left handed.</i>	165.e		
<i>Women with a double apple in their eie witches.</i>	155.b		
<i>bearing children at seauen yeares of age. 157.a. at five</i>			
<i>yeares. ibid. how many they may beare at one burthen</i>			
<i>naturally.</i>	157.d		
<i>Women in Egypt more fruitfull than others, and the rea-</i>			
<i>son.</i>	ibid.		
<i>Womens monethly sicknesse. 163.c. the strange effects</i>			
<i>thereof. ibid.d.e. they stay commonly at fourtie yeares of</i>			
<i>age.</i>	163.a		
<i>a Woman deliuered at once of two boies and two girls.</i>	ibid.		
<i>157.d. it presaged famine.</i>	ibid.		
<i>Women many times lie for dead and whereupon.</i>	184.k		
<i>a Woman deliuered of twenty children at four births. 157.e</i>			
<i>Wood most massie and which swimmeth not.</i>	490.g		
<i>Wood serving to strike fire.</i>	ibid.k		
<i>Woods of sundrie natures and for diuerse uses. 490.k.l. &</i>			
<i>493.d.e.f.</i>			
<i>Wood-wormes, foure sorts</i>	492.h		
<i>Wood breeding no worme.</i>	492.i		
<i>Wood how it is preserved from clemning.</i>	492.l		
<i>Wood of diuerse natures.</i>	ibid.		

X

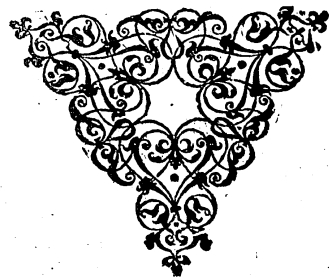
<i>Xenophilus lived an hundred and fiftie yeares without</i>	
<i>sickenesse.</i>	183.b
<i>Xiphia, a kinde of Comets.</i>	15.e
<i>Xylocinnamon.</i>	373.a
<i>Xylobalsamum. 377.b. the price of it.</i>	378.b

Y

<i>Yeels, the manner of their engendring.</i>	265.d
<i>Yeels, their nature. 247.f. their life,</i>	ibid.
<i>how they be taken in Benacum.</i>	248.g
<i>of great length.</i>	235.c
<i>Yeels-skins used to terke boys.</i>	249.k
<i>Yeels dead, onely, stoe not aboue the waters.</i>	247.f
<i>Yeels diuersly reckoned.</i>	181.a
<i>Yeere diuided into twelue moneths.</i>	7.b
<i>Yoking oxen who first began.</i>	189.a
<i>Yron and Steele who found first.</i>	188.k
<i>Yron-smith forge who first used.</i>	188.l

Z

<i>Zoroastres laughed the first day that he was borne: he</i>	
<i>lived in a wildernesse 20 yeares with cheefe. 349.b</i>	
<i>Zodiacke, a circle in heauen. 2.k. the denisers of all the</i>	
<i>parts thereof.</i>	5.e

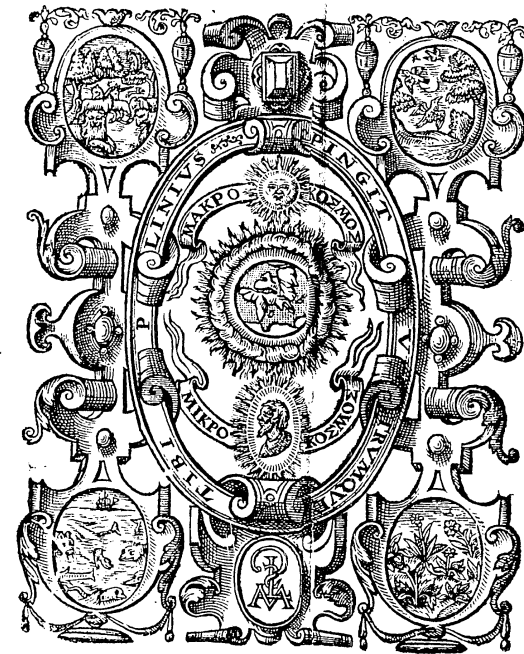


THE HISTORIE OF THE WORLD.

Commonly called,
THE NATVRAL HISTORIE OF
C. PLINIVS SECVNDVS.

*Translated into English by PHILEMON HOLLAND,
Doctor of Physicke.*

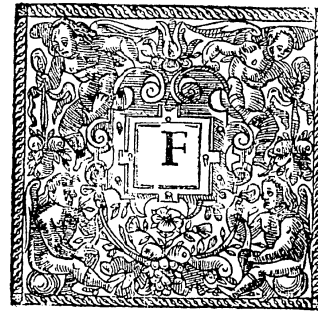
The second Tombe.



LONDON,
Printed by Adam Jflip.
1634.



TO THE READER.



Or as much as this second Tome treateth most of Physicke, and the tearms belonging thereto (as wel concerning diseases as medicines) be for the most part either borrowed from the Greek, or, such as the vnlearned be not acquainted with (which partly vpon necessity I was forced, and partly for varietie induced to vse) I could not content my selfe to let them passe without some explanation: for since my purpose especially is to profit and pleasure the most ignorant (for whose sake *Plinie* also himselfe, as hee professeth, compiled this worke) I would not be so iniurious vnto them as to interrupt their reading with obscuritie of phrase, when the matter otherwise is most familiar. In regard whereof, I thought good to prefix a brieue Catalogue of such words of Art, as euer anon shall offer themselues in these discourses that insue, with the explanation thereto annexed, and the same deliuered as plainly as I could possibly deuise for the capacity of the meanest. In the handling whereof, so I may satisfie my countrymen that know no other Language but English, I shall thinke my paine and labour well bestowed, and lesse feare the censure of the that haply expect some deeper learning; for euer still

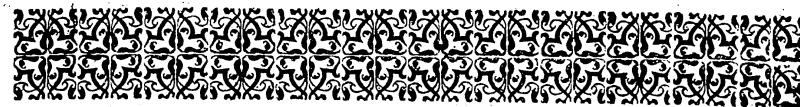
A 2 the

TO THE READER.

the verse of that Comickall Poet resoundeth from the stage
in mine eares,

αὐτὰρ ἄνθρωπος ποσειδῶν ὑποκρίσσετο. (id est)

Speake with lesse shew of learning, so it be with more perspe-
cutive. Vale,



A briefe Catalogue of the words of Art, with the Explanation thereof.

A

A *Bort*, or *Abortive fruit*, is an vntimely birth.

Abstersive, *i.* scouring, cleansing, or wiping away, such as the Greekes call *Smetica*, and they enter into sope & washing balls.

Acceffe, *i.* a fit, whether it be of an *Ague*, falling sicknesse, or any such diseases as returne at times.

Acetabulum, or *Acetable*, a measure among the Romans, of liquour especially, but yet of dry things also, the same that *oxybaphon* in Greeke: and for that, as both words do import, they vsed to dip their meats in vinegre out of such; it may wel go for a saucer with vs; for it contains, as some think, fifteen drams, which grow neere to two ounces, of which capacitie our small saucers are: but as others suppose, it receiues two ounces and an halfe, the measure of ordinary saucers.

Acrimonie, *i.* Sharpenesse.

Actually, *i.* sensibly and presently, as fire is actually hot.

Aditiales, or *Adiciales epulae*, were great and sumptuous feasts or suppers, held by the Pontifices or high Priests in testimony of publique ioy.

Almonds, see *Amygdals*.

Amphora, a measure in Rome of liquors only: it seemes to haue taken that name of the two ears which it had of either side one: it contained 8 Congios, which are much about 8 Wine gallons, or rather betweene seuen and eight: so as in round reckoning it may go for a ferkin, halfe kilderkin, or half tennert with vs.

Amygdals be kernils at the root of the tongue subiect to inflammations & swellings, occasioned by deflux or falling down of humors from the head: they be called *Antides*, *Paristhmia*, & *Tonilla*: the foresaid infirmities also incident vnto them, doe likewise cary the same denominations.

A

Antidotes, *i.* countrepoysons, properly, defensatiues or preseruatiues against poyson, pestilence, or any maladie whatsoeuer.

Antipathie, *i.* contrarietie, enmity, and repugnancie in nature, as between fire and water, the vine, and the Colewort, &c.

S. Anthonies fire is a rising in the skin occasioned by hot blood mixt with abundance of choler, and such be the shingles and other wild fires called in Greeke *Erysipelas*.

Aquosities be waterish humors apt to engender the dropies called *Ascites* and *Leucophlegmatia*.

Aromatized, *i.* Spiced.

Arthriticall griefes, such as possesse the ioints, as all the sorts of gout.

Astrictiue or *Astringent*, be such things as bind the body, or any part thereof.

Attractiue, *i.* drawing, as the loadstone draweth iron, amber straws or bents, *Dicamnus* arrow heads or spils out of the bodie, and cupping glasses (or ventoses) humours and wind.

Austere, harsh or hard, as in fruits vnripe, and hard wines of hedge grapes.

Axinomantie, a kind of magicke diuination by an ax head red hot.

B

B *Assis* in a compound medicine is that drug or simple which is predominant, and carrieth the greatest force in it, as the ground thereof, whereupon the whole taketh the name; as Poppy in *Diacodion*, Quinces in *Diacydonium*, &c.

Bole is the form of a medicine when it may be giuen in grosse manner at a kniues point to the quantitie of a nutmeg at a time, vntill the whole receit be taken.

Browning, a term vsuall in the mouths of mariners and winnowers of corne, when they are calmed and do call for wind.

Bulbes, although *Pliny* seemed to giue that name vnto some one speciall hearbe, yet it

signifieth generally all those as haue round roots, as Onions, Squilla, Wake-robin, and such like; whereupon these and other of that kind are said to haue bulbous roots.

Cacoehymne is that indisposition of the body in which there is abundance of humors.

Calcining, *i.* the burning of a minerall, or any thing, for to correct the malignitie of it, or reduce it into powder, &c.

Callositie, thicknesse and hardnesse of skinne in maner senselesse, as in fistulaes, and vnder our heeles.

to *Carminat*, is to make more fine and thin the grosse humours, by such medicines as by their heat are apt to cut and dissolue them; whereupon they likewise be called *Carminative*, a terme receiued by Apothecaries, and borrowed from those that card wooll.

Cancer is a swelling or fore coming of melancholy blood, about which the veins appeare of a blacke or swart colour, spread in manner of a Greisish clees; whereupon it tooke that name in Latine, like as in Greek *Carcinoma*. And such vlcers as in that sort be maintained and fed with that humor, are called cancerous, and be vntoward to heal, worse commonly for the handling.

Carnositie, *i.* fleshy substance.

Cataplasma, a pulsette or grosse maner of plaistre *Cartilage* in man and beast is a gristle, in roots and fruits, that substance which we obserue in the radish root, and the outward part of a cucumber, as *Pliny* seems to take it, which thereupon be called *Cartilagineous*.

Cataract is a dimnesse of sight caused by an humor gathered and hardned betweene the tunicle of the eye, called *Cornea*, and the Crystalline humour; it is next coufine to blindness.

Cautick, *i.* burning, blistering, or scalding.

to *Cauterise*, is to seare or burne by a Cauterie.

Cauterie actual is fire it self or scalding liquor: and so searing iron, gold, or other metall made red hot, is called an *Actual* cauterie, which without the help of our natural heat dorth work presently.

Cauterie potential is that which will raise blisters and burn in time, after it is once set on work by the heat of our body, as *Cantharides*, *Sperewort*, &c.

Ceres the first inuentresse of the sowing & vse of corne.

Cerote is of a middle nature betweene an ointment and a plaister, not so hard as the one, nor so soft as the other.

Cicatrices in eyes bewhitish spots; otherwise called pearls: they be the skars also remaining after a sore is healed vp: and so a place is said to be cicatrified, when it is newly skinned vp and healed.

Circulation is the deuise of subliming or extracting water or oile by a stillatorie, a lembick, or such, because the vapor before it be resolued into water or oile, seemes to go round circlewise.

Clysterized, *i.* conueyed vp by a clyster into the guts.

Coliaci be those that through weakenesse of stomacke are troubled with a continuall flux of the belly.

Colature, a thin liquour that hath passed thorow a strainer or colander.

Colligation is a falling away and consumpti- of the radicall humour or solid substance of the body.

Collyries, are properly medicines applied to the eies in liquid forme; whereas the dry kind be rather called *Sief* & *Alcohol*, especially in powder: howbeit *Pliny* attributeth this terme to all eye-salues whatsoever. Also it seemeth that hee meaneth thereby, tents to be put in a fistulous vlc- cer, as in pag. 509 b. 510 h.

Collution, a liquour properly to wash the mouth, teeth, and gums withall.

Concocted, *i.* altd to that substance by natu- ral heate, as either in health may serue to nourish, or in sicknes is apt to be expelled

Consolidat, to knit, vnite, & make found again that which was broken or burst.

Concrete, *i.* hardned and grown thicke.

Condite, *i.* preferued in some conuenient li- quor.

to *Concorporate*, *i.* to mix and vnite together into one masse.

Consistence, *i.* substance or thicknesse.

Conspicate, *i.* to harden and make more fast and compact.

Contraction of sinews, a shrinking or drawing of them in too short.

Contusions, *i.* Bruises.

Convulsions, painfull cramps.

Critical daies be such, as in short diseases & those of quicke motion, do giue light vn- to the physitian of life or death. *Pliny* ob- serues the od daies to be most significant, and those vsually determinof health; and the euen days contrariwise: so that the se- uenth is *Rex*, *i.* a gracious prince; the sixth *Tyrannus*, *i.* a cruell tyrant.

Cruditie.

Cruditie. See *Indigestion*.

Cyath, a small measure both of liquid and drie things; the twelfth part of a setarius, which was twenty ounces: whereby it appeareth, that a cyath was one ounce, one half ounce, one dram, and one scruple: it may goe with vs for foure ordinarie spoonfulls.

Cubit, a measure from the elbow to the middle finger stretched out at length, which went ordinarily for 24 fingers breadth, or 18 in- ches, which is one foot and a halfe: yet *Pli- ny* in one place maketh mention of a shorter cubit, namely from the elbow to the end of the fist or knuckles, when the fingers be drawn in close to the hand.

Cutaneae eruptions be such wheales, pushes, or scabs as do breake out of the skin and dif- figure it.

D

Debilitie, *i.* weaknesse or feeblenesse.

Decoction, a liquor wherein things haue bin sodden.

Decretorie daies, be such as in a sicknesse shew some chaunge or alteration in the patient, either for good or bad.

Defensaine, in medicines taken inwardly, are such as resist venom or pestilent humor: in outward applications, such as defend the fore or place affected from the flux or fall of humors thither.

Denarius, a coin of siluer in Rome, and in other countries of gold, the same that *Drachma Attica*, *i.* a dram in weight, which is *vij. d. ob.* of our mony; and the piece in gold an- swereth neere to a full French Crowne; in poise it goeth to a dram.

Dentifrices, are meanes in Physicke to pre- serue the teeth, and make them white and faire.

Depilatorie are those medicines which either fetch off the haire, or hinder it from com- ming vp againe at all, or at leastwise from growing thicke. They were called in Greek and Latine both, *Psilothra*.

Desiccative, *i.* drying.

Digestines be those medicines which taken in- wardly, helpe concoction of meate or hu- mors; or applied without vnto a sore, doe comfort the place, and make way for spee- die healing.

Dislocations, when the bones be either out of ioynt, or else displaced.

to *Disopilate*, *i.* to open.

to *Dissipate*, *i.* to scatter and dispatch.

Distortion, crookednesse or turning awry vna- turally.

Diureticall, such things as prouoke vrine.

Dose, *i.* that weight or quantitie of any medi- cine that may be giuen either conuenient- ly or without danger to the patient.

Dram, the eight part of an ounce, which is the weight of a Roman denier, or Denarius.

Dysenterie, is properly the exulceration or sore in the guts, whereupon ensueth besides the painfull wrings of the belly, a flux also of blood at the siege, and therefore it is vsual- ly taken for the bloody flux.

E

Ecloques. See *Eidyls*.

Electuaries, be medicinale compositions or confections to be taken inwardly, made of choise drugs, either to purge humors, to strengthen the principall parts, or to with- stand any infirmitie for which they are made. The substance is betweene a syrrop and a Conserue, but more inclining to the consistence of conserues.

Eidylls, or *Eidyllia*, be small poemes or pam- phlets written by Poets, such as *Theocritus* in Greeke compiled, and much like vnto the Pastorals or Eclogues of *Virgill* in La- tine.

Embrocation is a deuise that physitians haue for to foment the head or any other part, with a liquor falling from aloft vpon it, in maner of rain, whereupon it took the name in Greeke *Embroche*, and hath found none yet in Latine, vnlesse we should vse *Super- fusio*.

Emollitines, medicines that do soften any hard swelling.

Empiricks were those physitians, who without any regard either of the cause in a disease, or the constitution and nature of the Pati- ent, went to worke with those medicines whereof they had experience in others, fall it out as it would.

Empirick books of *Diodorus* contained receits approoued and found effectually by experi- ence.

Emunctories be those kernelly places in the body, by which the principall and noble parts doe void their superfluities, or such things as offend; to wit, vnder the ears for the brain, the arm-pits for the heart, and the share for the liuer, &c.

Empla-

The explanation of

Emplastration in the Hortyard, is grafting by inoculation with a scutcheon in Phy sicke, the applying of a salve or plastre.

Epilepsie, i. the falling sicknesse.

Eryrhines be deuises made like tents, sharper at one end than the other, to bee put vp into the nose, either to cure some vlcere there, or to draw downe and void humors out of the head, or to prouoke sneezing, &c.

Eschare, is that crust which ariseth vpon a cauterie, either actuall or potentiall, as also the roufe or scab that groweth vpon a sore.

Enuacuation, i. Voidance and riddance of any thing out of the bodie by vomite, purging, bleeding, sweating, &c.

Excalfactorie, i. Heating or chaufing.

Excoriation, i. fretting the skin off, when a part is made raw: a way to exulceration.

Excrecence, i. ouergrowing vnnaturally of any thing in mans bodie.

Exoticall, i. forraigne, and brought from other countries.

Exorcismes, i. coniurations by certain charmes and spels.

Exorcists, they that practised such Exorcismes. To *Expectorat*, i. to rid and discharge out of the breast by coughing or reaching.

Expiatorie, were sacrifices or oblations for to make satisfaction and atonement.

Exiccative. See *Desiccative*.

Extenuat, i. to make thin.

Exulceration, i. a forenesse of any part inward or outward, when not onely the skin is off, but the humor doth fret deeper still.

Exulceratine, be such things as are apt to eat into the flesh and make an vlcere.

F

Fermentation, i. an equall mixture of things working as it were together: a tearme borrowed from the leuaine, which disperseth it selfe into the whole masse or lump of dough.

Filaments bee the small strings that hang to a root like threads or haire, which some call the beard of the root: and in resemblance thereof, other things growing likewise, bee so called.

Fissures, clifts or chaps, whether it bee in the hands, feet, lips, or fundament.

Flatuositie, i. windinesse gathered within the bodie.

Flora, the goddesse of floures among the Paimins.

Fomentations properly be deuises for to be applied vnto any affected part, either to comfort and cherish it, or allay the paine, or els to open the poores to make way for ointments and plasters. If they be liquid things they are laid too by the means of bladders, spunges, or such like: if drie, within bags or quilts.

Fraclures, i. bones broken.

Friclions or *Frications*, rubbings of the bodie vpward or downeward gently or otherwise, as the cause requireth.

Frontall, the forme of an outward medicine applied vnto the forehead, to allay paine, to procure sleepe, &c.

Fukes, i. paintings, to beautify the face in outward appearance. They are called at this day complexions, whereas they bee cleane contrarie: for the complexion is naturall, and these altogether artificiall.

Fumositie bee vapours steaming vp into the head, troubling the braine.

Fungous, i. of an hollow and light substance like to Fuffes or Mushromes.

G

Gargarismes bee collutions of the mouth, and parts toward the throat, either to draw downe and purge humors out of the head, or to repress and restraine their flux, or to mundifie and heale any sore there growing.

Gargarising or *Gargling* is the action of vsing a liquor to the said purpose.

Gestation, an exercise of the bodie, by beeing carried in coach, litter, vpon horsebacke, or in a vessell on the water.

Glandulous swellings. See *Kings euill*.

Gleir, i. the white of an egge.

Gymnicke exercises, were those that were performed by men naked, and the place for such exercises, was thereupon called *Gymnasium*.

H

Habit of the bodie, is taken for the outward parts thereof, opposit vnto the bowels and principall within, which being comforted and fortified, do thrust forth offensive matters to the habit and exterior skin.

Hemino, a measure in Rome, as well of liquors as drie things: so called, because it was half *Sextarius*: it contained ten ounces, and is somewhat

the words of Art.

somewhat vnder our wine pint, it is the same that *Cotyla* in Greeke.

Humiditie, i. moisture.

Hydromantia, a kinde of magicall diuination or foreknowledge of things to come, by obseruation of the water.

Hydrophobie, is a symptome or accident befalling to them that are bitten by a mad dog, whereby they are afraid of water.

Hypochondriall parts, be the flanks or soft parts vnder the short ribs.

I

I Liacke passion, the wrings and torments of the vpper small guts, occasioned by wind or sharp humors. Some improperly call it the collicke of the stomacke.

Imbibition, a drinking or receiuing of any liquor into a thing: as when drougs lie steeped therein vntill they be thoroughly soaked therewith.

Impostumes properly be collections or gatherings of winde and humors especially betweene parts of the body, whereupon there appeareth a rising or swelling, and in time they become corrupt and do rankle, vnlesse by some meanes they be either drawn away or disperfed. Some terme them wens, howbeit, the word is taken for inflammations and biles.

To *Incorporate*, is to mixe and vnite well together.

To *Incrassate*, is to make thicke.

Indigestion, i. want of concoction and digestion, by which means many crudities & raw humors are ingendered, & by consequence abundance of rheumes.

Inflation, i. swelling or puffing vp with winde.

Infrangible, i. that cannot be broken.

Infusion signifieth the conueiance of some medicinable liquor into the body by clystere or other instrument. It importeth also the steeping of drougs in a conuenient liquor: and the liquor it selfe, when it is strained from the rest.

Ingredients, be those simples that goe vnto the making of any medicine compound.

Iniection, is the conueiance of any liquid medicine by syringe or such like instrument into any part of the body or hollow and fistulous vlcere.

Insects, little vermine or smal creatures, which haue (as it were) a cut or diuision betweene their heads and bodies, as Pismires, Flies,

Grashoppers, vnder which are comprehended Earth-wormes, Caterpillars, &c.

Inseffions be bathing tubs or vessels halfe full, wherein the patient may sit vp to the middle or aboute in some conuenient decoction. *Intermittent feauer*, are those which come by fits, and yeeld some rest betweene whiles.

Inunction, i. anointing.

Iulebs or *Iuleps*, be drinckes giuen commonly as preparatiues for to open the passages of the inward parts, and to prepare the humors for a purgation, made either of some stilled waters and syrups mixed together, or of a decoction sweetened with hony or sugar, or els mingled with syrups.

K

Kings euill, is the hard swelling of the Glandules or Kernels commonly about the necke: they be called also *Scrophules*.

L

Lachrymal, is the corner of the eie wherein the teares appeare first, and thereof it taketh the name.

Lassitude, is wearinesse or vnlustinesse.

Lauature, *Lotion*, or *Lasure*, is a liquor to bathe or wash withall: likewise to cleanse and mundifie any part.

Ligula, *Lingua*, or *Lingula*, a small measure among the Romanes, both of liquor and drie things, containing the fourth part of Cyathus, to wit, three drams & one scruple or scruple, somewhat vnder halfe an ounce, and may goe well for our Spooonefull.

A *Liniment* is thicker than oyle, and thinner than an ointment, it may be taken for a thinner kind of ointment.

Lobes and fibres are the lappets and extreame parts of the liuer, with the master veines growing thereto.

Locall medicines, be those that are appropriat for the forehead, *Errhine* or *Nasal* for the nostrills, &c. or to be applied outwardly, ointments, which are not to be vsed before general or vniuersal means by euacuation.

Loch or *Lohoch*, is a medicin more liquid than an elecuary, appropriat for the lungs and windpipe, and is to be licked and let goe downe leisurely.

Longaon, is the nethermost gut reaching vnto the very seat or the fundament.

Luted, i. close stopped with clay, dough, or such like.

M

Maturatives be medicins that help to ripen any swelling impostume, bile, or botch. *Maturity*, is the ripenesse thereof.

Membranes, be fine skins which inwrap other parts, as the brains, eies, and muscles of the flesh.

Metrenchyte, an instrument serving to infuse or inject a liquid medicine into the matrice of a woman, in manner of clystere.

Mitigatives, be such remedies as do assuage paine.

Mina, or *Mina*, was a Roman weight, which poised twentie ounces, that is to say, the ordinary pound, called *Libra* or *Pondo*, & two third parts: for the common *Libra* called *Medica*, weighed twelve ounces, so that *Mina* seemed to answer unto the measure *Sextarius*.

Mollitine. See *Emollitines*.

Mordicative, is biting and stinging, as *Senuy* feed.

Mucilage, is a slimy liquor drawne from some roots or seeds, as from the marsh Mallow or *Althea* root, the seed of *Psillium* or *Flewort* and others.

Muscles be the fleshy parts of the bodie, contained within their feuerall membranes or skinned.

N

Narcoticke medicines, be those that benum and stupifie with their coldnesse, as *Opium*, *Hemlocke*, and such like.

Nasals be Nose-rents. See *Errhina*.

Nerves, i. Sinewes:

Nodosties, hard knubs & knots growing vpon the ioynts in old goutts, and in other parts.

O

Oboles, halfe a scriptule, or the sixt part of a dram.

Obstructions, i. Stoppings.

Opiats, were properly at the first such electuaries or confections, which had a good quantity of *Opium, i.* the iuice of Poppie in them, such as *Philonium* and *Requies*, that were deuised to mitigate intollerable

paine, and to bring the patient to sleepe: howbeit, in these daies all electuaries, euen cordials, in a liquid form be called *Opiats*, although there be not one grain of *Opium* in them.

Opilation. See *Obstruction*.

Orthopnoicke, are those that haue the disease *Orthopnoea*, which is a difficulty of drawing their wind, vnlesse they sit vp right.

Osses, be words cast forth at vnwares, presaging somewhat.

Otenchyte, an instrument, deuised for to infuse or poure some medicinable liquor into the eares,

Oxyerate, a mixture of water and vineger together.

P

T*P*alliat, *i.* to couer: & such cures be called *Palliative*, which search not to the root and cause, but giue a shew only of cure; as when a sore is healed vp aloft, and yet festereth vnderneath: and so sweet *Pomanders* do palliat a stinking breath, occasioned by a corrupt stomacke or diseased lungs, and such like.

Paradoxes, strange opinions.

Pectorals, i. such medicines as bee fit for the breast and lungs.

Pellicles. See *Membranes*.

Penetrative, i. Percing.

Periodicall, such agues be called, as return at their iust course from day to day, euery third fourth, or fifth day, &c.

Peripneumony, is the inflammation of the lungs.

Pessary, is a deuise made like a finger or suppository, to be put vp into the natural parts of a woman.

Phlebotomie, i. blood-letting, or opening of a veine by incision or pricke.

Phthisicke, to speak properly, is the consumption of the body occasioned by the fault of exulcerat and putrified lungs. But *Pliny* otherwise seemeth to take it for any other consumption.

Pomona, a deuised goddesse amongst the *Painims*, of apples and such fruits.

Prodigies bee strange sights and wonderfull tokens, presaging some fearefull thing to come.

Propinquitie, nearnesse or affinity.

Proscription, was a kind of outlawing and depriving a man of the protection of the state, with

S

SAliuation, is a drawing of humours to the mouth, and a deliuerie of them from thence in manner of spittle.

Sarcling is the baring of roots, by ridding away the earth and weeds from about them, that did clog them.

Scarification, is a kind of pouncing or opening of the skin by way of incision slightly, with the fleame or lancet, either to giue some issue for the blood and humours to passe forth, or prepare a place for the cupping-glasse to extract more.

Schirre, is a hard swelling almost fencelesse.

Scriptule, or *Scruple* is foure and twenty grains weight, or the third part of a dram.

Scrophules. See *Kings euill*.

Seat, is the circumference or compasse about the tuill or fundament.

Secundine, i. the afterbirth that infolded the infant within the mothers wombe.

Sege, a stoole of easement, whereupon wee sit to discharge the order and excrements of the guts.

Serofities, or *Serous humors*, be the thinner parts of the masse of blood, answering to the whey in milke, such as we see to float vpon blood that hath run out of a veine.

Sextarius, a measure among the *Romanes*, whereof six goe to their *Congius*, whereupon it tooke that name: it contains two hemines, and is somewhat lesse than a wine quart with vs, it beareth twentie ounces.

Sinapisme, a practise by a plaster of mustard seed, and such like, to reuiue a place in manner mortified, and to draw fresh humors & colour to it.

Solstice, i. the Sunnestead, as well in winter as Summer, when hee is come to his vtermost points North and South, but vsually it is put for Mid-summer onely.

Sophisticated, i. falsified & made corrupt, howbeit, going for the right. Thus drougs and gems are many times thrust vpon vs.

Spasmes, be painefull crampes or pluckings of the sinewes and cords of the Muscles.

Spasmatike, are such as be thus plucked.

Species, be either the simple ingredients into a composition, or else the bare pouders mingled together, ready to be reduced into an electuarie liquid, or *Tables*.

Speculative knowledge, or *Speculation*, is the insight into a thing by reading only & contemplation

with confiscation of his lands and goods. *Propagat*, to grow and increase, after the manner of Vine branches, which being drawne along in the ground from the motherstock do take root.

Propitious, i. gracious and mercifull.

Proximitie, neere neighbour-hood or resemblance.

Ptisane, the decoction of husked Barley: a grewell made therewith, or the cream thereof.

Pulposi, i. full of pulpe, or resembling pulpe, which is the soft substance in Apples or such fruits, answerable to the flesh in liuing bodies.

Purulent, yeelding filth and Attyr.

Putrescitive, such venomous medicines or humors, as do corrupt and putrifie the part of the body, which they possesse.

Q

Quindennours, were certain officers, fifteen in number, ioined in one commission.

R

Reeptorie, a vessell standing vnderneath, ready to receiue that which droppeth and distilleth from something about it.

Reciprocall, going and coming, as the tides of the sea ebbing and flowing.

To Rectifie, i. to set streight, to reforme, or amend.

Repercussive, i. driuing or smiting backe.

Residence, i. the settling toward the bottome, as in vrine.

Retentive facultie, i. the naturall power that each part or member of the body hath to hold that which is committed vnto it, the due time, as the stomacke, meat, the bladder, vrine, &c.

Reverberation, i. rebounding or striking backe. *Rhagades*, bee properly the chaps in the fundament or seat.

Rubified, i. made red, as when by application of mustard plasters, called *Sinapismes*, or beating a part that is benumbed with nettles, it recouereth a fresh colour againe, whereupon such plasters be called *Rubificative*, and the operation is named by the *Greekes* *Phoenignos*.

Rupture, the disease of bursting, as when the guts or other parts fall downe into the bag of the cods.

templation, without practise & experience.
Sprme, is naturall seed.
Spondyles, be the turning ioints of the chine or backbone.

Stomachicall fluxe, is the same that *Coeliaca passio*. See *Calici*.

Stomacall medicines, be such as are appropriat for the diseases incident to the mouth, and the parts adjoining.

Stypticke, be such things as by a certain harsh taste, doe shew that they bee astringent, as medlars and alumne, which thereupon is named *Stypteria*, and such like.

Succedim, that drug which may be vsed for default of another. The Apothecaries call such, *Quid pro quo*.

Suffusion. See *Cataract*.

Suffumigation, is the smoke that is receiued in to the body from vnder a stool, for the diseases of the guts, fundament or matrice.

Suppuration, is when a bile or impostume gathereth to an head and must be broken.

Sympathie, i. a fellow-feeling, vsed in *Pliny*, for the agreement or amitie naturall in diuers fencelesse things, as betweene yron and the loadstone.

Symptome, an accident accompanying sicknes, as head-ach the ague, stich, shortnesse of wind, spitting bloud, cough, and ague, the pleurisie.

Syringe, an instrument in manner of a pipe to iniect a medicinable liquor into the bladder.

T

Tellus, the earth.

Tenacitie, clamminesse, such as is in glew, birdlime, and Bitumen.

Theorick, or *Theoretique*, contemplatiue know-

ledge without action and practise.

Tinefme, an inordinat desire to the stool without doing any thing to the purpose.

Tonsils. See *Amyg dals*.

Transparent, i. cleare and bright throughout, as crytall, amber, aire and water.

Transufation, i. the pouring of liquor out of one vessell into another.

Triuial, i. vulgar, common, and of base reckoning.

Triumvirat, the Tripartite dominion of *Antonie*, *Octavius*, and *Lepidus*, when they held all the world in their hands, each one their third part.

Trochisques, or *Troques*, be litle cakes or roundles, into which diuers things medicinable are reduced for to be kept the better, & to be ready at hand when they shall be vsed.

Tuil, the same that the Fundament or nethermost gut.

V

Vegetatiue, that power in nature which God hath giuen to creatures, whereby they liue, are nourished, and grow.

Ventositie, windinesse.

Vicinitie, neernesse, or neighborhood.

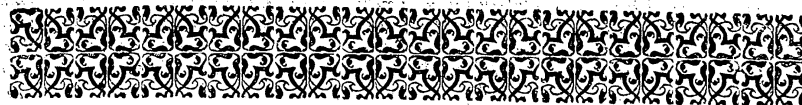
Victoriat, a siluer coine in Rome, Halfe a denarius, so called because it had the image of victory stamped on the one side: it is somewhat vnder our groat.

Vnction, anointing.

Vnguent, an ointment.

Vreters, be the passages or conduits whereby the water or vrine passeth from the kidnies into the bladder.

Vulnerarie, i. belonging to a wound; as *Sanicle* is a vulnerary herbe, and *Machon* was a vulnerarie Physician.



THE NINETEENTH BOOKE OF THE HISTORIE OF NATURE,

WRITTEN BY C. PLINIUS

SEC VNDVS.

The Proeme.

I Reated we haue in the former booke, of the stars and signes above, which giue vs intelligence as well of the seasons, as the disposition of the weather to come: and that in plaine and easie manner, by so euident and vndoubted demonstrations also, as may content the meane capacitie of the unskillfull and ignorant. And verily, if we will rightly weigh and consider the thing we shal find and vnderstand, that our countrey farmes and villages stand vs in good stead to know the inclination of the heauens and stars, as the skill of *Astronomy* serueth our turnes for good husbandry. These points now being well and thoroughly learned, many haue bin of opinion, That the knowledge of gardens and the care thereto belonging, should by good right follow next. Howbeit, I for my part am of this mind, that there be other matters concerning *Agriculture*, deserue to be handled, before we leape thus soon to gardening. And here I cannot chuse but maruell much at some men, who making such profession of learning, and namely, in the skill and science of *Agriculture*, as they haue done yea, and seeking thereby to win all their credit and name of erudition and literature, haue notwithstanding omitted many things requisite therunto, without any mention made, or one word spoken of so many herbes and simples which either come vp of themselves, or grow by meanes of mans hand: considering that the most part of them are in greater price and reputation, yea, and in more vse and request far, for the maintenance of this our life, than either corne or Pulse, or any fruits of the earth whatsoeuer.

And to begin first at those that are known commodities, and so notorious, as that the vsether of not only reacheth all ouer the maine and continent, but extendeth also to the very seas, and ouerspreaeth them: What say we to *Line* or *Flax*, so commonly sowed as it is? yet may it not be ranged either among the fruits of the field, or herbes of the garden. But what region (I pray you) or part of the earth is without it; and what is there so necessary for this life of ours in all respects? Again, is there any thing in the whole world more wonderfull and miraculous, than that there should be an herb found of this vertue and property, as to bring *Egypt* and *Italy* together? in so much, as *Galerius*, Lord Deputy in *Egypt* vnder the Romans, was knownto set saile from the firib of *Messina* in the straits of *Sicily*, and in seven daies to arrive at *Alexandria*: *Babilius* also Governor there likewise, in six; and that by the means of the said herb? Moreover, what say you to this, which was seen no longer since than the summer past, when *Valerius Marianus*, a Senator of Rome, & late Lord Pretour, embarked and tooke ship at *Putcoli*, and in nine daies sailed to the said *Alexandria*, and yet he had but a very mild and still wind to helpe him in that voiage? Is not this a strange and soueraigne herb? think you, that in a seven night's space can fetch Gades from as far as the straits of *Gilbretar* or *Hercules* pillars, into the harbor of *Ustia* in *Italy*? can shew (I say) the king dome of *Catalogne* in *Spain* before the said port-towne in foure daies, Province in three, and *Barbary* in two? for *C. Flaccus*, lieutenant vnder *Vibius Crispus* the Pro-consull, did so much I speake of, and that with no great forewind, but a most gentle and milde gale. Oh the audacious boldnesse of this world, so rash, so full of sin and wickednesse; that a man should sow and cherish any such thing, as might receiue and swallow the Windes, stormes, and tempests; as if the float and tide alone were not sufficient to carrie so proud a creature! But now are wee growne moreouer to this passe, that sailes bigger than the Shippes themselves, will not serue our turnes. For albeit one mast be sufficient to carrie the biggest crosse-yard that can be deuised, yet are not wee content with a single maine saile.

maine sailet herenpon, vnlesse we set up Saile vpon Saile, top and top-gallant: vnlesse (I say) we haue for e-
sailes and sprit-sailes in the Prow, misnes also hoised up and displayed in the Poupe; besides other trinkers
and more cloath stall; and all to set vs more forward vpon our death, and to hasten our end. Finally, is there
ought againe so admirable, as that of so small a graine as is the Line-seed, there should grow that which is
able to carry to and fro in a moment, this round globe of the earth, the same being so slender a stalk as it is,
and not growing high from the ground? considering withall, that twisted it is not entire and whole in the
stem; but before it can be occupied, it must be watered, dried, braked, tow-tawed, and with much labor dri-
uen and reduced in the end to be as soft and tender as wooll: and all to do violence to Nature and Mankinde
most audaciously euen in the highest degree, in such sort, as a man is not able to proceed so far in execration,
as is due vnto this inuention. The first deuise wherof I haue touched against in conuenient place else-
where, and not without desert; as who could not be content, that a man should die vpon the land, but hee
must perish vpon the sea, to feed Haddockes there, without the honour of sepulture. In the booke but next be-
fore this, I gaue warning and aduertised men, That for to enioy corne and other victuals necessarie for this
life, in suffisance and plenty, we should beware of winde and raine: and now behold, man is so wicked and
vngenerous, his wit so inuentiue, that he will be sowing, tending, and plucking that with his own hand, that
calls for nothing else at sea but winde, and neuer rests till Browning be come. See moreover, how well this
vnhappy hand of his speeds: for there is not a plant againe cometh vp sooner, or thriveth faster than this
Flax. And to conclude, that we may know how Nature her self is nothing wel pleasing therewith, and that it
groweth maugre her will, it burnes the field wherein it is sowed, it eateth out the heart of the ground, and
maketh it worse where-euer it comes: this is all the good it doth vpon a land.

CHAP. I.

¶ The maner of sowing Line or Flax: the sundry kindes thereof: the order how to dresse it.
Also of Napkins and other Naperie. Of Flax and Linnen that will not burne in
the fire. And when the Theatres or Shew-places at Rome
were first encourtained.

Line-seed loueth grauelly or sandie grounds passing wel, and commonly is sowed with
one tilth and no more: yet is there nothing maketh more haste to be aboue ground,
or sooner cometh to maturitie. Being sowne in Spring, it is pluckt in Summer. See
how * injurious it is stil to the earth euen this way also! Wel, say that the Egyptians
in some sort may be excused, for sowing it as they doe, and making saile-cloath thereof; in
regard of the necessarie traffique they haue into Arabia and India, for to fetch in the commo-
dities of those countries; what need or reason, I pray you, hath France so to do? Can the Gauls
be sorted in the same range with the Egyptians? Whether would they go? Is it not sufficient
that they see the mightie mountaines standing iust between them and the Mediterranean sea?
Will not this serue to keepe them from Navigation, that on the huge Ocean side they can dis-
cover nothing but the vast Elements of Water and Aire together? Howbeit, for all this re-
straint, the Cadurci, Caletes, Rutene, and Bituriges, the Morini also, who are supposed to be
the farthest people inhabiting our Continent; yea and thoroughout all parts of Fraunce they
weaue Line and make Sailes thereof. And now adayes also the Flemmings and Hollanders
dwelling beyond the Rhene (I meane those antient Enemies to the State of our Empire) doe
the like*: infomuch as the women there cannot deuise to go more rich and costly in their ap-
parell, than to weare fine Linnen. The obseruation wherof putteth me in mind of a thing that
M. Varro doth report of the whole Race and Familie of the Serrani: in which House this Or-
der was precisely kept, That there was not a woman amongst them knowne to weare any Lin-
nen about her, no not so much as in a smocke next her bare skinne. Now in Germanie, the
spinners and weauers of Linnen doe all their worke in shroud, caues, and vaults, buried, as it
were, vnder the ground: so do they also in Italy and that part of Lombardie that lieth between
the Po and Ticinus, to wit, in the * Countrey Aliana; where (after the Setabines in Castile,
which is the best) there is very fine workmanship of Linnen cloath, and may deserue the third
place for goodnesse thoroughout all Europe. For the Retovines, bordering hard vpon the
foresaid Alliances, and the Faventines, who inhabit the broad port-way Emilia, are to be ran-
ged

* For that so
quickely it
robbereth her
of moisture.

* It seems that
fine Holland
cloth & Cam-
bricke was in
request by Pi-
nites time.

* Regione Alia-
na, Turneb.

Aged in a second degree and next to the Setabines for the fine Linnen which they make. And in
very truth, this Faentine cloth is alwaies far whiter than the Allian, which is ordinarily brown
when it is new wouen, and before it be bleached. Like as the Retovine is exceeding fine & thick
wouen withall, and besides, not inferior in whitenesse to the Faentine; howbeit, no nap or down
it carrieth, a thing which as there be some who dogreatly praise and like, so there be others again
discommend and dislike as much. As touching the thred it selfe that they make of their Flax, it
is more euen (if euener may be) than that which the Spider spinneth; so neruous also and strong
withall, that if a man list to make triall thereof with his teeth, it will giue a twang and ring a-
gain like a Lute-string: and therefore it carrieth a double price to other. As touching the Spa-
nish Flax, and namely, that which Aragon and Cartalogna doth yeeld, it is passing faire and
Bwhite, by reason of a certain brook or running water passing vnder Tarracon, wherein it is water-
red: the nature whereof is to giue it a singular brightnesse aboue the rest. Wondrous fine it is,
and runneth into a dainty small thred: for there first was deuised the fine Cypres or Lawne, and
the curtains thereof. It is not long ago, since out of the same parts of high Spaine, there was
brought into Italy the flax of Zoela, most commodious & meet for hunters to make great nets
and toile. A maritime city this Zoela is, in Gallitia, scituat neere the ocean. There is excellent
good Line also to be found at Cumes in Campaine within Italy, which serueth very well for
snares and small nets to take fishes, and to catch birds with. The same also yeeldeth matter and
stufte for the great cord-nets abovesaid: for wote wel this, that Flax fitteth our turns, as well to
snare and intrap all other beasts, as it doth to indanger our own selues, [vpon the sea.] But of all
Cothers, the toile made of Cumes flaxen cords, are so strong, that the wild bore falling into it, will
be caught: and no maruell, for these kind of nets will cheeke the very edge of a sword or such
like weapon. I my selfe haue scene so fine and small a thred, that a whole net knit thereof, toge-
ther with the cords and strings called Courants, running along the edges to draw it in and let it
out, would passe all through the ring of a mans finger. I haue known one man also carry so many
of them (easily) as would go about & compasse a whole forest. But this is not the greatest won-
der of them; for more than so, euery one of these threds that went to the making of the machines,
was twisted 150 double: and euen of late daies, *Tullius Lupus*, who died Lord Deputy or Gouver-
nor of Egypt, had such. This may well seem a maruell incredible to those who neither knew not
saw the net-worke Habergeon, or Curet of *Amasis*, a king somtime of Egypt, which was shewed
Dof late daies within the temple of *Minerva*, in the Isle of the Rhodians; euery thred whereof
carried a twist * 365 double. Certes, *Mutianus* a man of good credit (as who had bin thrice con-
full of Rome) hath related so much at Rome vpon his owne knowledge: for wheras there remain-
ed yet certaine small reliques and little pieces thereof, it was his hap of late to meet with some
of them and by his owne triall to find that true, which had bin reported by others. And verily,
great pittie it is, that such an excellent, rich, and rare peece of work (as it was) should thus come
to nothing, by mens iniurious handling of it, trauceling out the threds as they haue don, for to see
the prooffe of the thing.

But to returne againe to our flax of Italy. That which groweth in the Pelignians countrey is
at this day in great account and request: howbeit, none vie it but the Fullers. There is not a
Ewhiter flax to be found, & indeed resembling wool nearer than this flax. Like as, for quilts, ticks
and mattraffes, the flax of the Cadurci in France had no fellow: for surely the inuention thereof,
as also of floss to stuffe them with, came out of France. As for vs here in Italy, euen as our maner
was in old time to lie and sleep vpon straw-beds & chaffy couches, so at this day wee vie to call
our pailers still by the name of Stramenta. The Line or flax of Egypt is nothing strong, howbe-
it the people there do raise exceeding great gaine and profit thereof. And foure distinct kinds
thereof are knowne, according to the names of the sundry countries where they grow, to wit,
Taniticum, Pelusiaticum, Buticum, and Tentyriticum.

Moreover, in the higher parts of Egypt which bend toward Arabia, there groweth a certaine
shrub or bush carrying cotton, which some call Gossypium, others * Xylon, and the linnen ther-
Fof made they therefore call * Xylina. This plant is but small, and bringeth forth a fruit resem-
bling the bearded nut or filbert; out of the inner shell or huske wherof [called * Bombyx] there
breaks forth a cotton like vnto downe, so easie to be spun: and there is no flax in the world com-
parable to it for whitenesse & softnesse. Of this cotton, the Egyptian priests were wont to wear
their fine surpleffes, and they tooke a singular delight therein. A fourth kind of linnen there is,
called

* According to
the daies of
the yearre.

* Cotton or
Bombace.
* Linly-wol-
sey, or our Fa-
sians rather.
* Hercupon
cotton is cal-
led Bombac

called Orchomenium; it commeth from a certaine fennie reed growing in marishes, I meane the tender muchets or chatts thereof.

In Asia they haue a certaine kind of broome, the stalke and branches whereof they water and leaue in sleepe ten daies together, and thereof make thread, passing good for to be twitted and knit into fisher nets, for they will abide the water very well, and indure without rotting. The Ethiopians and Indians both, find a stufte in manner of Line or cotton in some apples or such like fruit: and the Arabians meet with the like in gourds, growing as I haue before said vpon trees.

To come againe to our countrey Line or Flax within Italy, we go by two signes, and know thereby when it is ripe and ready to be gathered; to wit, either by the swelling of the seed, or the colour of the plant it selfe, leafe and stalk inclining to yellow. Then is it plucked vp and bound into certaine bunches as much as handfuls: which done, they are hung vp to drie in the sun one day, with their heels or roots vpward: the morrow after, they be turned quite contrary, and so for fve daies after, they hang with the foresaid roots downward, that the seed may fall downe from their heads into the mids of euery bunch or bundle aforesaid; for the seed thereof is medicinal, and of effectuall operation in Physicke: yea and the rurall Peasants in Lombardie and Piemont beyond the Po, vse to make therof a good country meat of a most sweet and pleasant tast; but now for this good while, that kind of meat or bread is made onely for to be employed in their sacrifices to the gods. Then after wheat haruest, the stems or stalks thereof are laied in some water that is warme with the Suns heat, charged with stones or other weights thereupon, that they may be borne downe and sinke to the bottom: for there is not a thing besides lighter than Line, or loueth better to swim. When they be sufficiently watered (which you shall know by the skin or rind thereof if it be loofe and ready to depart from the rowy substance of the stem) then must the foresaid jauids or stalks bee hung out a second time to be dried in the sun, with their heads and heels one while vp and another while downe, as before. After they be wel dried, they are to be beaten and punned in a great stone mortar, or vpon a stone floore, with an hurden mallet or row-beetle made for the purpose. Now that part thereof which is vtmost & next to the pill or rind, is called Tow or Hurds, and it is the worst of the Line or Flax, good for little or nothing but to make lampe-match or candle-wick; and yet the same must be better kemberd with hetchell teeth of yron, vntill it be clesed from all the grosse barke and rind among. As for the good Flax indeed, which is the teere or marrow as it were within of the Line, there be diuers and sundry sorts and degrees of it, distinct according either to the whitenesse or softnesse thereof. And the spinning of this fine Flax (I may tell you) is so cleane a worke, that it will become a man ywis to lay his fingers to it. But what shall be donewith all the hard refuse, the long buns, the stalks, the short shuds or shiues that are either driuen from the rest in the knocking, or parted in the hetchelling; many they will serue very well to heat ouens and furnaces, or to maintaine fire vnder kills and leads. And here there is a prettie cunning and skill in the hetchelling and dispensing of Flax to the prooffe: for if the Line bee good and well ordered, euery fiftie pounds of it in bunches or bundles aforesaid, must yeeld fiftene ordinarily of tried and carded Flax. Moreouer, when it is spunne into thread, it must be polished againe and whitened in water, with much punning and knocking vpon a stone together with the water. And yet there is no end, for after it is wouen to cloath, it ought to bee followed and beaten a third time with good clubbe-headed cudgels: in such sort, as the more iniurie that is done vnto it, the better it is.

Furthermore, there is a kind of Line found out which will not consume in the fire: this in Italy they call Quick-line, and I my self haue seen table-clothes, towels, & napkins thereof, which being taken foule from the board at a great feast, haue been cast into the fire, and there they burned before our face vpon the hearth; by which means they became better scoured, and looked fairer and brighter a hundred times, than if they had bin rinsed and washed in water; and yet no part of their substance, but the filth only, was burnt away. At the roiall obsequies and funeralls of KK, the manner was to wind and lap the corps within a sheet of this cloth, of purpose to separate the cinders comming of the body, from other ashes [of the fivett wood that was burnt therewith.] This manner of Line groweth in the deserts of India, where no rain falls, where the countrey is all parched and burnt with the Sunne, amongst the fell dragons and hideous Serpents: thus it is inured there to liue burning, which is the reason, that euery after it will abide the fire.

A fire. Geason it is to be found, and as hard to be wouen, so short and small it is. How soeuer otherwife it be naturally of colour reddish, yet by the fire it getteth a shining glosse and bright bew. They that can come by it and meet withall, esteeme it as precious as the best orient pearles. In Greeke they call this Line, Asbestinum, according to the nature and property that it hath, not to consume with burning.ouer and besides, *Anaxilans* saith, That if a man would cut downe or fall a tree by stealth and in secret, let him compasse the body thereof with a sheet of this linnen, he may hew as long as he will at it, and all the strokes that he giueth will be so drowned, that they shall not be heard againe. To conclude, in all these respects about said, this Line may well be counted for the principall and best that is in the whole world.

The next to it in goodnesse, is the Line called Byflus: the fine Lawn or Tiffany whereof our B wiues and dames at home set so much store by for to trim and deck themselves: it groweth in Achaia within the territorie about Elis; and I find, that in old time it was sold as deare as gold, for a * scruple thereof was commonly exchanged for * foure deniers Roman.

The lint or nappie downe which linnen cloth beareth in manner of a soft cotton, especially such as commeth of ship sailes that haue lien at sea, is of great vse in Physicke. * The ashes also made thereof, be counted a good Succedane of Spodium, and for their efficacie may go for it. Moreouer, there is a kind of Poppies much sought after for blanching and bleaching of linnen clothes; for being skoured therewith, it is wonderfull how white and pure they will look: & yet for all the beautie that consisteth in that colour, people are grown to this disorder & vain enormity, that they haue assaid to stain and die their linnen and naperie into other colours, as well

C as their woollen cloth. Which practise was first seen in the Armada or fleet of K. *Alexander* the Great, vpon the great riuier Indus, at what time as his captiues and Admiralls in a certaine skirmish that they madewith the Indians, changed the armes and ensignes of their ships: whereat the inhabitants (being vpon the shore and strond) were astonied to see their sailes and streamers painted with diuers colours wauiug in the wind. Semblably, the sailes of that ship were died purple, wherein *M. Antonius* together with *Cleopatra* came to Actium, and in which they fled both from thence and escaped. And indeed heretofore a red purple banner erected on the top of the mast, was the badge or ensigne of the royall Admirall ship: but afterwards they began at Rome to incourtaine their Theatre with such vailles dyed in colours, onely for shade: an inuention deuised by *Q. Catulus* at what time as he dedicated the temple of the Capitoll. In D prolesse of time, *Lentulus Sinter* (by report) was the first man that in the solemnity of the games and plaies Appollinate, drew fine curtaines ouer the great Amphitheatre at Rome: howbeit not long after, *Cesar* Dictator caused the grand Forum or Common place at Rome to be couered all ouer with such rich Courtains; yea and the high faire street called Sacra, to bee hanged on both sides from his owne dwelling house to the very Capitoll cliffe: which magnificent and sumptuous sight, was more wondered at and seene with greater admiration, than the braue shew and Tourney that he set out at the same time of Sword-plaies at sharpe and to the utterance. Then followed *Marcellus* also the son of *Octavia*, sister to the Emperour *Augustus*, who in his own Edileship and in the tenth Consulship of his vncke *Augustus* before said, vpon the Calends or first day of August that yeare, caused the Romane Forum to be drawne all ouer and shadowed

F with the like courtains, although he represented at that time no solemnity at all of games and plaies: and this he did only, that they who came to plead at the barre, might stand vnder shade more whole somely. Lord, what a change was here at Rome since the daies of *Cato* the Censor, who thought it meet and requisite, yea and gaue aduise that the said Forum or great Hal of common Pleas should be paved and laid all ouer with caltraps vnder foot, To keepe our Lawyers and busie pleaders from thence. Of late daies there were seene in the Amphitheatres of Emperour *Nero*, trauerses drawne vpon cords and ropes, with fine courtains of blew azure colour like the skie, and those beset with stars; where the very floore of the ground vnder mens feet, was coloured red. And wherefore serue these in cloister courts and walks now, but to keepe the mosse forth vpon the ground, or rather the fine fret-worke in pauements, from sun-burning? But for all these paintings and rich dyes, yet when all is done, the white linnen held the own still & was highly esteemed about all colors. And no doubt in great price such cloth was in the time of the Trojan war: and in good faith I see no reason why it should not be as well in bloody battails as at broken shipwracks: howbeit *Homer* testifies, that few there were who went to the wars with linnen habergeons or cures: but it should seem that the Poet (as the better learned expositors doe interpret)

* 24 graines,
* 1 about the
half-pence
the grain
better.
* Herco- w
m de fectis
m. wh. cc.
Gaen. v. c.
3 & 2 m.
wh. h. ch
lint her cured
H. vander
stancher his
bleeding.

* Called by
Tacuinus, Se-
vilias, as Festus
noteth.

terpret) meant, That ship-tackling, sailes, cords, and ropes, were made of this Line, speaking as
he doth of * Sparta, whereby he vnderstandeth indeed Sata, i. cordage of sowne Line or garden
Flaxe.

CHAP. II.

¶ The nature of Spart or Spanish broome: the manner of handling and dressing it: when
it was first vsed in cordage: what Plants there be that line and
grow without root.

Spart verily was not in vse and request for many hundred yeares after, neither was it knowne
before the first voiage and expedition that the Carthaginians made in warlike manner in-
to Spaine. An herb this is also, growing of it selfe without setting or sowing (which indeed
it cannot abide.) Full well and properly it might be called, the rush of a dry and leane ground,
and a very defect or imperfection appropriate to that country alone of Spaine: for, to say a
truth, it is the fault and badnesse of the soile in the highest degree, that breedeth it; and where it
commeth vp, nothing else can be sowed and set, or will grow at all. That in Affricke or Barbary
is very small, and good for nothing. In the territory of new Carthage or Cartagena (which is in
the higher part of Spaine) it groweth much: howbeit all that tract is not giuen to breed it, but
look where it commeth vp, you shall see whole mountaines all ouer-spread and couered with it.
Hereof the rusticall peasants make their mattraces and beds; this is their fewel wherewith they
keep fires, of it they make their torches and links to giue them light; with it they are common-
ly shod; and the poore shepheards cloath themselves therewith. Howbeit, hurtfull is this
plant to cartell, vnlesse it be the tender tops and crops of the branches; which they may brouse
and eat without harme. For other vses, when the Spaniards would plucke it vp they haue much
adoe withall, and a great toile about it; for their legs must be wel booted as it were with grines;
their hands couered with thick hedging-gloues, as gantlets; and being thus armed at all points,
yet they lie tugging at it, pulling, writhing, and wresting the same with hooks and crooks either
of bone or wood, vntill they haue their will of it. Come they about this work in winter time, it
is in manner vnpossible to get it vp: but from the Ides [i. the mids] of May vnto mid-Iune, it is
very tractable; for this is the time and season when it is ripe, and then commonly they gather it
for their ordinary vses before named. Being once pulled and sorted, the good from the bad, it is
made vp into bundles and faggots with the life still in it, and so piled on a heap for the first two
daies; the third day they vnbind it, lay it loofe and scattering in the Sun for to be dried: which
done, they make it vp againe into fagots, and so bring it in and lay it vp within house. After all
this, they steep it in sea water (for that is best) or els in fresh, for want of the other. After this wa-
tering, it must be dried in the Sun, and then steeped in water a second time: but if a man haue
vrgent occasion to vse it presently out of hand, he must put it in a great tub or bathing vessel, &
let it soke there in hot water a time. Now if when it is dried againe, it be stiffe and will stand
alone, they take it for a sure signe that it is sufficiently watered, and hath that which it should
haue. This is a very neere and ready way, & saueh them much labour. Thus being prepared one
of these two waies, it ought to be brayed and beaten before it will serue the turne; and then no
cordage in the world is better than that which is made of it, nor lasteth so well within the wa-
ter and the sea especially, for it will neuer be done. For drie worke, I confesse, and out of the wa-
ter, the gables & ropes wrought of hemp are better; but Spart made into cordage will liue & re-
ceiue nourishment within the water, drinking now the full as it were to make amends for that
thirst which it had in the native place where it first grew. Of this nature is Spart besides, that if
the ropes made thereof be worne, and (with much occupying) out of repaire, a little thing will
mend and refresh them, yea and make them as good as euer they were; for how old soeuer it be,
yet will it be wrought very well again with some new among. A wonderfull thing it is to consi-
der and look into the nature of this herb, and namely, how much it is vsed in all countries, what
in cables and other ship-tackling, what in ropes for Mafons and Carpenters, and in a thousand
necessities of this our life. And yet feel the place which furnisheth all this store, lying along the
coast of new Carthage, we shal find to be within the compasse of thirty miles in bredth, & lesse
somewhat in length. And verily, if it were fetched farther off within the main, the cariage would
not quit for the cost and expences.

The

A The Greekes in old time employed their rishes in drawing of ropes: as may appeare by the
very word *rima*, which signifieth with them a rish, and a rope. But afterwards they vse their cor-
dage of Date tree leaues, & the thin barks of the Linden or Tiller tree: from whence verily, like
and probable it is, That the Carthaginians borrowed both their vse of Spartum, and maner also
of dressing it.

Theophrastus writeth, That there is a bulbous plant, with a root like an Onion-head growing
about the banks of riuers; between the vtmost rind whereof, and that part within, which is good
to be eaten, there is a certain cotton or woolly substance, whereof folke vse to make * woollen
fokes and some such slight peeces of apparell. But he neither named the country where they
be made, nor sets downe any other particularities more than this, That the said plant they cal-
led Eriophoron [i. Bearing wooll:] so far as euer I could find in any copies comming to my
hand. And albeit Theophrastus was otherwise a diligent and curious writer of plants, and fear-
ched deep into the nature of simples, foure hundred and ninety yeeres before my time, yet hath
he made no mention at all of Spart, a thing that I haue obserued and noted in him once alrea-
dy before now. Whereby euident it is, that the manner of dressing and vsing Spart, came vp af-
ter his daies.

And since we are entred into a discourse of the wonders of Nature, I will follow on still and
continue the same, wherein this may be one of the greatest, That a thing should liue and grow
as a plant without root. Look but to those Mushrooms or Toad-stooles, which are called in
Latin Tubera: out of the ground they grow, compassed about on euery side with the earth, with-
out root, without any filaments, or so much as small strings & beards resembling a root where-
vpon they should rest: the place where they breed doth not swel or bear vp one jot, nay, it shews
no chink or creuasse at all out of which they should issue: and to conclude, they seem not once
to stick and cleaue to the ground whereupon they stand. A certaine barke or pill they seem to
haue, which enloseth them, such as (to speake plainly) we cannot say is earth indeed, nor any
thing else but a very brawnie skin or callositie of the earth. These breed commonly in drie and
fandie grounds, in rough places full of shrubs and bushes, and lightly in none else. Oftentimes
they exceed the quantity of good big Quinces, euen such as weigh a pound. Two sorts there be
of them. Some be full of sand and grit, and such plague folkes teeth in the eating: others bee
clean, and their meat is pure, without any such thing among. They differ also in color, for there
D be of them that are red: ye shall haue those also that seem blacke, and yet are white within. But
the best simply are those that come out of Africk or Barbary. To determin resolutely whether
they grow still from day to day, as other plants; or whether this imperfection of the earth (for
better I know not how to call it) commeth at one instant to that full growth that euer it will
haue; also, whether they liue or no, I suppose it is a difficult and hard matter: surely this is cer-
taine, that their putrifaction is much after the manner of wood, and they rot both alike. Many
yeres past there are not, since *Lartius Licinius*, sometimes lord Pretor and gouernour vnder the
Romans in the prouince of Spain, chanced (of my knowledge) while he was there at Carthage,
in biting one of these Mushrooms, to meet with a siluer Roman denier within it, that turned the
edge againe of some of his fore teeth, and set them awry. Whereby a man may perceiue mani-
E festly, that they be a certaine excrecence of the very earth, gathering into a round forme, as all
other things that grow naturally of themselves, and come neither by setting nor sowing.

CHAP. III.

¶ Of the excrecence named * Misy: and of other such like Puffes and Mushrooms. Of those
flat Fusses and broad Toad-stooles, called * *Peixici*. Of the plant or hearbe * *La-
serpitum*. Of *Mazgadaris*. Of *Madder*. Of *Sope-weed*, or the
Fullers hearbe *Radicula*.

W Itin the prouince of Cyrenaica in Affricke, there is found the like excrecence cal-
led Misy, passing sweet & pleasant, as well in regard of the smell as the tast, more pul-
pous also & fuller of carnositie than the rest: likewise, another of that nature in Thra-
cia, called Ceraunium. As touching al the sorts of Mushrooms, Toad-stooles, Puffes, Fusbals or
Fusses, these particulars following are obserued, First it is known for certain, that if the autumn
be much disposed to rain, and withal, the aire be troubled and disquieted with many thunders,
during that season, there wil be good store of such Mushrooms, &c. especiall, (I say) if it thun-
der

* Sic Spartum
nunc restum
eque restem
significante.

* Impilia, media
videntur.

* or, Milfon.
* or, Pezitez.
* Laserwort.

* or Milfon, ra-
ther, according
to Turneb.

der much. Secondly, they wil not last aboue one yere. *Item*, The tenderest & daintiest be those that breed in the Spring, and that indeed is the best time for them. *Item*, In some countries the ouerflow of riuers engender Mushromes, and namely, at Mitylene, where (by report) they will not otherwise grow but vpon floten grounds, and namely, in such places whither the water hath brought from Tiara, a certain vegetatiue seed to breed them. And verily, That Tiara is wonderfully stored & replenished with such. As touching the Truffles or Mushroms of Asia, the most excellent of all others be neer vnto Lampſacum and Alopecouetus: but the best that Greece yeeldeth are in the territorie about the citie Elis. In this Toad-stoole or Mushrome kind are those flat Fuffles and Puffes to be reckoned, which the Greekes name *Pezizæ: as they haue no root at all, so they be altogether without either stele or taile.

* or Pezici

* Some take it
for Benioin, or
Asa dulcis.
* Which is
equiſolent in
weight to a
dram, 17. 400
English.

* Thought to
be Asa ſuſina.

* 500 miles:

In the next place to these I must needs speake of the most noble and famous plant Lāserpitium, which the Greeks name Silphium, discovered and found first in the abovesaid prouince of Barbarie Cyrenaica. The juice or liquor drawne out of this hearb they cal *Laser; a drug so magnified, of such singularity and vse in Physicke especially, that it was sold by weight, and a dram thereof cost commonly *Romane denier. For these many yeares of late, there is none of this plant to be found in that country of Cyrenaica before said: for that the Publicans and Farmers of the pastures and grounds there, (vnder the people of Rome) doe put in their cattell among these plants, and eat al downe by that means: finding thereby a greater gaine or commodity, than by letting them stand for the juice or liquor aforesaid. One only stalk or stem thereof hath bin found in our days, which was sent vnto Emperor Nero as a present, for a great nouelty. If it chance at any time, that either sheepe or goat (which commonly bite neer to the ground) do light vpon a yong plant thereof, newly peeping forth and not euident to be seene, you shall know it by these signes, The sheepe presently so soone as she hath tasted it will drop asleep, and the goat fall a neeing. For these many yeres the merchants haue brought vs into Italy no other *Laser, than that which grows abundantly in Persis or Media, and in Armenia: but it is far inferior to this of Cyrenaica, and commeth short of it for goodnes. And this that we haue is no better than it should be, for they sophisticate and corrupt it with gum, with Sagapeum, or else with bruised Beans. In regard of which scarcity, I cannot chuse but remember that which betell at Rome in that yere wherein C. Valerius and M. Herennius were consuls, when by great good fortune there was brought from Cyrenæ thirtie pound weight of the best Laser, and set abroad to be seene in open place, of all commers. As also I may not let passe another o current, namely, how Cæsar Dictator at the beginning of the ciuile war, tooke forth openly out of the chamber of the citie, with other treasure bo h of gold and siluer, an hundred and eleuen pounds of the best Laser. Moreouer, this one thing more I cannot forget: the best and most renowned Greeke Authors haue left in writing, That 7 yeres before the foundation of the citie Cyrenæ, which was built 143 yeres after our citie of Rome, this plant Lāserpitium that beareth the said Laser was engendered at one instant, by occasion of a certain thicke grosse, and black shewer of raine, in manner of pitch, which sodainely fell and drenched the ground, about the hortyards or gardens of the Hesperides, & the greater Syrtis: The which rain was effectuall, and left the strength thereof, for the compasse of * foure thousand stadia within Affricke or Barbarie. They affirme moreouer, That the herb Lāserpitium, there growing, is of so sauage and churlish a nature, that it cannot abide any culture or good ordering by mans hand: but if one should goe about to tend and cherish it, it would rather chuse to be gon into the desert and vnpeopled parts of the countrey, or else winder away and die. Moreouer, they set downe this description of it, That it hath many roots, and those bigge and thicke, a stemme or stalke, resembling the hearb Sagapeum or Fennell-geant, howbeit, not altogether so great: the leaues of this plant, which they termed by the name of Maspemum, come very near in all respects to those of Smallach or Persely. As touching the seed that it beareth, flat and thin it is in manner of leaues: but the leafe it selfe thereof, sheddeth in the Spring time. The cattell that vse to feed thereupon (and whereof they be very greedy) first fall a scouring: but afterwards, when they be clenſed and rid of ill humors, begin to wax fat, and their flesh by this means becommeth wonderfull sweet and pleasant. They report moreouer, that after the leaues be fallen, men also were wont in old time to eat the stem or stalk thereof, either roasted and baked vnder the cindres, or else boiled and sodden in water: and their bodies likewise for the first 40 daies ensuing, did nothing but purge til they were cleared of all diseases, breeding by occasion of any Cacoehymie or collection of ill humours within them.

Now

A Now concerning the juice or soueraigne liquor before said, the manner was to draw it after two sorts; to wit, by scarification, either out of the root, or forth of the stem and maister stalke. And hereof it came to haue two names, Rhizias and Caulias. But the later of these two, to wit, that which came of the stem, was counted the worst, subiect to putrifaction, and sold cheaper than the other. To come now to the root of Lāserpitium, it hath a blacke rind or barke vpon it, wherewith the merchants vse to sophisticate many of their drugs. As for the manner of dressing and ordering the juice thereof, it was no sooner drawne, but they put it into certaine vessells, together with brans among, then euer and anone they plied it with stirring and shogging, vntil it had lost the cruditie and verdure thereof, and by that working, came to the maturity and perfection: for if it were not thus well followed, soon would it catch a vine, begin to putrifie, and to continue but a while. In this worke of theirs they had an eye vnto the color how it changed: for when they perceiued it to be high, & that they saw it once drie and haue don sweating & breathing out the raw humidity and vapor within, then they knew thereby that it was wrought sufficiently, and come to the full ripenesse. Others there be who say, that the root of Lāserpitium beareth more than a cubit in bignesse, and that out of it there swellth an excreſcence, aboue the ground, out of which there was wont by way of incision to issue forth a certaine white juice in manner of milke: vpon which grew the stalke or stem which they called Magydaris. And they affirme besides, that it beareth leafy flat graines for the seed, in color like gold, which shed presently vpon the rising of the Dog-star, especially if the wind be south. Of which grains or seeds fallen to the ground, young plants of Lāserpitium vse to grow vp vnderneath, that within the compasse of one yere wil thriue both in root and stem to the iust and full perfection: they haue written moreouer, that the vse was to dig about their roots, and to lay them bare at certain times of the yere. Also, that they serued not to purge cattell as is aforesaid, but to cure them if they were diseased: for vpon the eating thereof either they mended presently, or else ended and died out of hand; but few they were that miscaried in this sort. As touching the former opinion of purging and scouring, true it is, that it agreeth well to the other Silphium or Lāserpitium of Persia, aforesaid. Another kind there is of it named Magydaris, more tender and lesse forcible and strong in operation than the former; and affoordeth no such juice or liquor at all, it grows about Syria, and commeth not vp in all the region about Cyrenæ.

Moreover, vpon the mount Parnassus there is great plentie found of a certaine hearbe, which the inhabitants would needs haue to be Lāserpitium, and so they cal it: wherewith indeed they are wont to abuse and sophisticate that singular and diuine plant, the true Lāserpitium, so highly commended, and of so great account and regard. The principall and best triall of the true and sincere Laser, is taken from the colour, somewhat enclining to rednesse without: breake it, you shall haue it appeare white within: and anone transparent. If you drop water vpon it, or otherwise thin spittle, it will resole and melt. Much vse there is of it in many medicines, for to cure mens maladies.

Two plants more there be well knowne to the common sort and base multitude, and to say a truth, few e's are acquainted with them, notwithstanding they be commodities of much gaine, and many a peny is gotten thereby. The first is Madder, in great request among diets and curriers: and for to set a color vpon their wooll and leather, right necessaric. The best of all and most commended is our Madder of Italie, principally that which groweth about villages neere vnto our citie of Rome. And yet, there is no country or prouince lightly but is full of it. It commeth vp of the owne accord, and is sowed besides of seed, and set of slips in manner of Eruille. Howbeit, a prickie stalke it hath of the owne: the same is also full of joints and knots, and commonly about every one of them it hath fine leaues growing round in a circle. The seed is red. What medicinable vertues it hath, and to what purpose it serueth in Physicke, I will declare in place conuenient.

The second is that which is called in Latin Radicula, [i. Sope-wort] an hearb, the juice wherof Fullers vse so much to scoure their wooll withall: and wonderfull it is to see how white, how pure, how neat and soft it will make it. Beeing set, it will come vp and grow in any place: but of it selfe without mans hand, it groweth most in Asia and Syria, among rough, craggie, and stony grounds. The best is that which is found beyond the riuer Euphrates, and that bears a stem like tall Fennell, howbeit small and slender, and whereof the inhabitants of the countrey there doe make a delicate dish; for besides, that it hath a commendable tast and much desired, it giueth a pleasant

pleasant colour to what meat soever is sodden in the pot with it. It beareth a leafe like the Olive: the Greeks call it Strution: it flourisheth in Summer: lovely it is to the eye, but no smell at all it hath to content the nose: prickie moreouer it is like a thorne, and the stalke notwithstanding covered with a soft down: feedeth it none; but a big root, which they vse to cut, shred, & mince small for the purposes aforesaid.

CHAP. IV.

¶ The manner of trimming and ordering Gardens: the sorting of all those things that grow out of the Earth, into their due places, besides corne and plants bearing fruit.

IT remaineth now to treat of Gardens, and the carefull diligence thereto belonging: a commendable thing in it selfe, and recommended vnto vs besides by our fore-fathers and auncient writers, who had nothing (to speake of) in more account and admiration in old time, than the gardens of the Hesperides, of *Adonis*, and *Alcivionius*: as also those pendant gardens vpon terraces and leads of houses, whether they were those that *Semiramis* Queene of Babylon, or *Cyrus* K. of Assyria, deuised and caused to be made. Of which, and of their workmanship, my intent is to make a discourse in some other booke. Now for this present (to goe no farther than Rome) the Romane KK. verily themselves made great store of gardens, and set their minds vpon them: for so we read, that *Tarquin* surnamed the Proud (the last king of Rome, was in his garden when he gaue dispatch vnto that messenger that was sent from his sonne about a cruell and bloudie errand, for to know his fathers aduise and pleasure as touching the citizens of Gabij. In all the twelue tables throughout which contain our ancient lawes of Rome, there is no mention made so much as once of a Grange or Farm-house, but euermore a garden is taken in that signification, and vnder the name of Hortus [i. a Garden] is, comprised *Heredium*, that is to say, an Heritage or Domain: and herupon grew by consequence, a certain religious or ridiculous superstition, rather of some whom we ceremoniously to sacre and blesse their garden and hortyard dores only, for to preserue them against the witchcraft, and forerie of spightful and enuious persons. And therefore they vse to set vp in gardens, ridiculous and foolish images of Satyres, Antiques and * such like, as good keepers and remedies against enuy and witchcraft, howsoever *Plantas* assigneth the custodie of gardens to the protection of the goddesse *Venus*. And euen in these our daies, vnder the name of Gardens and Hortyards, there goe many daintie places of pleasure within the very citie, vnder the color also and title of them, men are possessed of faire closes and pleasant fields, yea and of proper houses with a good circuit of ground lying to them, like pretie farmes and graunges in the countrey: all which, they tearme by the name of Gardens. The inuention to haue gardens within a citie, came vp first by *Epicurus* the doctour and master of all voluptuous idlenesse, who deuised such gardens of pleasure in Athens: for before his time, the manner was not in any citie, to dwell (as it were) in the countrey, and so to make citie and countrey al one, but all their gardens were in the villages without. Certes at Rome, a good garden and no more, was thought a poore mans cheiuance; it went (I say) for land and liuing. The Garden was the poor commoners shambles, it was all the market place he had for to provide himself of victuals. O what a blessed, what a secure, and harmlesse life was that, so long as men could be content to take vp with such a pittance, and stay themselves so! but better it is I trow, for to satisfie the appetit of our wanton gluttons and belli gods, to search into the bottom of the deepe sea: for to get (I say) oysters of al sorts, to feare no tempest nor shipwrack: for to meet with daintie foule, to send out one way as far as beyond the riuier *Phasis* for those birds, which a man would thinke were sure ynough and secured from the fouler, by reason of the fearefull tales that goe of them, and of the danger of those that approach neere vnto them (and yet why say I so, considering they are the better esteemed and more precious, the farther they bee fet and dearer boughr): to haue purveyours another way in *Numidia* and *Aethiopia*, for the rare birds there about the sepulchres, among those sepulchres (I say) where in stead of meeting with game, they stumble otherwhiles vpon their owne graues and neuer come home again: and lastly, to haue others to chase the wild and sauage beasts of the forests, yea and to maintain fight with them, in daunger to be deuoured as a prey, by those which soon after must serue as venison for other men to eat. But to come againe to these commodities of the Garden, and the cates which

* As Priapus,
Thallus, and
Libypballus.

A which they affoord: how cheape be they? how ready at hand? how fitted are they not only to fill the belly and satisfie hunger, but also to please the tooth and content the appetite, were it not that wealth and fuinesse stand in the way: the same that loath all things els beside, and disdain (no maruell) these ordinarie viands. Wel might it be borne with and suffered, that Apples and other fruits of the trees, such as are more exquisite and singular than the rest, in regard of their beauty, bignesse, pleasant saour, or strange and monstrous maner of growing, euen against the course of Nature; that these dainties (I say) should be reserued for our rich and mighty men of the world; that poore men should be debarred and forbidden once to taste thereof. In some sort tolerable also it is, that great States and wealthy personages should be serued at their table with old wines, fined and refined, with Vines delaied, neatified, and guelled, as it were, by passing thorow an *Ipocras* bag; that such should drink no other but that which was wine before they were born, how aged soeuer they be and far steept in yeares. We may abide moreouer, that our grand-panches and riotous persons haue deuised for themselves a delicat kind of meat out of corn and grain (which should serue for bread only) and the same made of the finest and purest floure, bolted and seared from the rest, and none but that: to say nothing of the curious work in pastrie, the fine cakes, wafers, and marchpanes, artificially carued, ingraued, and painted in imagerie, as if these wantons could not liue, forsooth, but of such deuises. That there should be a difference also in bread, answerable to the distinction of States in the city, one sort for noble Senators, another for the worshipful knights and gentlemen, and a third for the mean commoners and multitude. Finally, that in other victuals there should be a descent by so many degrees, from the highest to the lowest, many cary some apparence of reason, & be allowed. How then? must there be a distinction therefore inuented in worts and garden pot-herbs? Must the difference of persons according to their purse appeare also in a dish of * three farthings price, and no better? Surely I see no sense nor congruities at all in this. And yet forsooth such herbes there be, that the tribes of Rome (the greater part I mean of the Roman citifens) may not presume to eat; as if the earth had brought them forth for rich men onely, being no meat ywis for poore people. Why (say they in scorn and contempt of pouertie) here is the stem of a Wort so well growne, here is a cabbage so thriuen and fed, that a poore mans boord will not hold it. Certes dame Nature ordained at the first, That Sperage should grow wilde and commonly in all places of the field, as if she meant thereby, that euery man that would might gather them for to eat: and now behold they are cherished carefully in gardens; and from *Rauenna* you shall haue of these garden Sperages so fair and big, as three of their crops or heads will weigh a good pound, and are sold after three a Roman As. O the monstrous bellies that be now adaies! O the excessive gluttonie and gourmandise which now reigneth in the world! Is it any maruell, that poore Asses and such dum beasts may not feed vpon * Thistles, when the Commons of Rome are restrained and forbidden to eat * Thistles, and dare not once touch them? And yet here is not all: our waters also be distinguished and set apart for some persons; euen the very elements whereof this world consisteth, are distinct, seuered, and raunged into sundry degrees, and all at the pleasure of monied men: for some you shall haue to drinke snow, others ice: and will you see in one word their folly and vanity? the very miserie that high mountains are punished and plagued with, they make their pleasure of, and therewith content and delight the throat. These men lay for to be provided of chilling cold against the heat of summer, and seeke by all means that they can possible, to haue snow remain white still and frozen (as it first was) out of Winter season, euen in the hottest months in the yere, which are most opposite vnto the nature of snow. Some there be who first seeth the ir water, & anon let it congeale againe to ice, after it was once scalding hot. Whereby we may see, how man neuer contenteth himselfe in natures workes, but crosse he will be alwaies and peeuish; and look what pleaseth her, shall displease him: for who euer would haue thought, that any one herb should haue grown for the rich, and not as well for the poore? Well, let no man for all this cast about and look toward mount *Sacer*, or *Auentine* hill, that the Commoners againe should by way of insurrection rise, and in the heat of their bloud depart aside thither, as somtimes they did in a mutinous fit of theirs, in high discontentment with the Nobilitie. For what needs that, since they may be sure that death very shortly will bring them together, and make equall, betwene whom now for a while Riches hath put a bar, and made distinction of place and degree.

But now it is time to returne againe vnto our gardening, from which we were digressed. Certaine

* Etiam vno
esse venali.

* Carduus,
Arctichokes,
which are no
better than
Cardus alibi;
i. Garden-
Thistles.

tain it is, that in old time there was no market place at Rome yeelded greater impost vnto the State than the Herberie, in such request and so much called for were worts and por-herbs. In regard of which exactions and paines, euermore going out of their purses, the Commons in the end complained, laid open their griefes, and made their mone to the Senate, of this burden and heauy load; and neuer gaue they ouer crying still vnto them with open mouth, for redresse, til they obtained a full release of rent and custome, raised before from the tallage and portage of this kind of ware and commoditie. Whereby it was well knowne and found by long experience, that there was no one thing of greater reuenue and more assured gain; none that stood so safe and certaine; none lesse subiect to the will and pleasure of Fortune & Casualtie, than gardenage: as being taken for no lesse than a yerely fee, that poore men might make account of as sure as if it were in their purse. Again, for the rent thereof paid to the land-lord, there was ever good securitie: the ground or soile was a sufficient surety; the profits thereof were alwaies seen and exposed openly to the eye; and lightly no weather whatsoeuer hindered the crop & gathering thereof. *Cato* highly commends the garden Coules or cabbages, whereby we may know, that in his daies gardens were in some respect. Also in times past, as husbandmen in the country were known especially, & their wealth valued by their gardens, so when there was a garden plot seen lying out of order, and not wel kept, men iudged straitway, that the mistresse or dame there dwelling (for commonly this charge lay vpon women) was but an ill hufwife, and thriflesse in her house: for in default of gardinage what remedy was there then, but to draw the purse strings, and go for euery thing either to the Butchery or the herbe-market, and so to liue vpon the penny. Neither were in those daies Coules or cabbages so well esteemed as now they be: for why, they could not away with double meats one vpon another, but condemned all dishes that required some addition, as help of sauce, broth, or such like to draw them downe. This was to spare cost, and by this means they saued oile. For as touching the pickle sauce * *Garum*, all those were reproched for gourmandise and gluttony, who could not eat fish or flesh without it. And therefore men tooke greatest contentment in their gardens & garden herbs: those were at hand and ready at all times, no great cookerie was required to dresse such dishes, no need of fire, no expence of wood and fewel. And hereupon it came, that salads of herbs were called * *Acedaria*, so little care and trouble went to the prouision and making of them. Beside, light they are of digestion, they breed no heauinesse in the head, they offend not the braine nor any of the senses; and least of any thing make quarrell to the loafe and spend little bread. That quarter of the garden which serueth an house with poignant herbs in stead of sauce, to giue a commendable tast and seasoning to our meat, sheweth plainly, that the master and mistresse thereof were not wont to run in the merchants books for spicerie, but changed the Groffer or Apothecaries shop for the garden; for the same contentment they had out of it, as from thence: also that they sought not either for pepper out of India, or for any kitchen spices transported from beyond the seas out of far countries. And as for the other quarters, set out with beds of floures, & sweet smelling hearbes, what reckoning was made of them in old time may appeare by this, That a man could not heretofore come by a Commoners house within the city, but he should see the windowes beautified with green quishins, wrought and tapised with floures of all colours, resembling daily to their view the gardens indeed which were in out villages: in so much, as being in the very heart of the city, they might think themselves in the country; till such time as these fly thees and night-hookers, the wicked rabble (I say) and off-scouring of the base multitude (not to be reckoned) committed such felonious outrages, as forced men to naile vp couers and cases before these faire lights and beautifull prospects. Let vs giue therefore to gardens their due honour: let vs not (I say) deprive things of their credit and authoritie, because they are common and nothing costly: for I may tell you, some of our nobilitie, yea the best of the city, haue not disdained to take their sir-names from thence, nay they supposed themselves highly credited and honored thereby. Thus we see, that in the Noble house and linage of the *Valerij*, some were not abashed nor ashamed to be called *Lactucini*, in regard of the best kind of Lettuce that they either had in their gardens, or affected most. And here I cannot chuse but mention by the way, the grace that hath growne to our name, by occasion of some diligence imploied and paines taken this way; whereby certaine Cherries beare our Name, and are called *Pliniana*, in testimony of our affection and loue to that fruit. Which I remember the rather, for that *Virgil* confesseth how hard a thing it is, that so small matters as these be should grow

* Much like
to our An-
shoues.

* *garum* & *acedaria*.

A grow into the name and reputation of honor any way. And now to the purpose. No man doubteth, but that a garden should lie to a graunge or ferme-house, and joine close vnto it: as also, that about all things there should be water at commaund, from some riuer or brooke running vnder, yea, and through it, if it were possible: if not so, yet that they are to be watered with pit water fed with Spring, either drawne vp by plaine poles, hookes, and buckets; or forced by pumpe and such like, going with the strength of wind within enclosed, or else weighed with Swipes and Cranes. Moreouer, that a garden-plot should be broken vp and haue the first digging presently vpon the coming of the west wind *Fauonius* in the beginning of the Spring: and for any thing that must be set or sown there, against Autumne, it ought to be prepared and dressed readie for to receiue seeds and sets, 14 daies after: but for Winter stuffe, it should haue B a stirring or second tith and deluing before the Winter Sunstead or shortest day of the yeare. Also, this is to be noted, that there would not be a greater plot of ground taken in, empaled and fenced about for a garden, than of 8 acres or Iugera at the most. Now for the manuring and ordering thereof: first, for three foot deep the dung would be tempered and mingled with the mould. *Item*, It ought to be diuided in principal quarters: the same also must be set out into seuerall beds, raised somewhat high and lying vpward. *Item*, Requisit it is, that euery quarter haue as welcert aine open gutters or furrowes drawne about them, as conuenient allies betweene to giue both passage for men to come and goe gainely; and also a currant to the course of water that shall be let in, when the springs be let open or sluces drawne.

Garden plants and hearbs be not all commendable in one and the same respect. For of some C the goodnesse lieth only in their bulbous and round root: of others contrariwise in their head aloft. There be of them that haue no part good but their stem or maister stalk: and there are for them againe, the leaues wherof be only eaten. Now a man shall haue amongst them those that are wholesome meat, both leafe and stalke. In some the seed or graine, in other the outward pill or rind alone of the root is in request. And as there be that tast well in the skin or cartilage and gristly substance without forth, so there are that haue either their pulpous carnosity within, or else their fleshy coat about, as daintie. All the goodnes of many of them lieth hidden within the earth: and of as many againe about the ground: and yet some there be that are all one, as good within as without. Some traile along and run by the ground, growing on end stil as they creep, as Gourds and Cucumbers. And yet the same, as well as they loue to be neere the earth, yet are D led lpon traules, and hang thereon, yea, and be knowne for to rampe vpon trees: Howbeit, much weightier and better nourished be they that keepe beneath. As for the Cucumber, it is the cartilage substance of the fruit thereof, that delighteth and pleaseth our tast: for of all fruits this propertie it alone hath, that the vtmost rind which it beareth, groweth to a very wood when it is once ripe. Within the earth lie hidden and are kept all Winter, Raddishes, Nauews, Turneps or Rapes, Elecampane also after another sort; so doe Skirworts, and Parseneps or Wypes.

Moreover, this I would aduertise the Reader, that when I tearme some hearbes *Ferulaceae*, I meane such as resemble in stalke Dil or the great Mallows. For some writers doe report, That in Arabia there be a kind of Mallows, which after they haue grown six or seuen months, come to be in the nature of pretie trees: in so much, as their stalks straightwaies serue in stead of walking stauces. But what should I stand vpon this? In Mauritania, by report of traouellers, neer the frith or arme of the sea adjoining to Lixos, the head citie of Fez, where sometimes (as folke say) were the hort-yards and gardens of the Hesperides, not about halfe a quarter of a mile from the maine ocean, hard vnto the chappell of *Hercules* (farre more ancient than that temple of his, which is in the Island Calis) there groweth a Mallow, that is a very tree indeed in height it is twentie foot, and in bodie bigger and thicker than any man can fadome. In this kind I meane for to range the Hempe likewise. And as I purpose to tearme such *Ferulaceae*; so there bee some others, that I will call *Carnosa*, such as resemble the riuer or fresh-water Spunges, which commonly are scene vpon ouer-floten medowes, where the water standeth. For as touching the fungous substance or calliositie of some plants, I haue already spoken thereof in the Treatise F of Wood and Trees, and of their nature: Likewise in our late discourse of another sort of Mushrooms and Toad-stooles.

¶ Garden plants, their natures, kinds, and severall histories.

OF the cartilage and pulpos kind (such I meane onely, wherof there is nothing good but that which is aboue the ground) I reckon the Cucumbers: a fruit that *Tiberius* the Emperour much loued and affected: for he tooke such a wondrous delight and pleasure therein, that there was not a day went ouer his head, but he had them serued vp to his table. The beds and gardens wherein they grew were such as went vpon frames to be remooued euery way with wheelles: and in winter, during the cold and frosty daies, they could draw them backe into certaine high couert buildings exposed to the Sun, and there house them vnder rouse. Moreover, I find in some ancient Greek writers, that their seed ought to lie 2 daies in steepe, or infused in honied milke, before they be prickt or set into the ground: for by that meanes the Cucumbers will be the sweeter and more pleasant. The nature of them is to grow in what forme and fashion soeuer that a man would haue them. Throughout all Italy, green they be of colour, and least of any others: in the out-pronices they be as fair and great, and those either of a yellow color, like wax and citrons, or els blacke. In Affrick or Barbary men take delight to haue the greatest plenty of them; whereas in Mosia they lay for to haue them passing big and huge. Now when they exceed in greatnes they be called Pepones, or Pompons. Let a man eat them alone, they will lie raw and Greene in the stomacke a whole day, and neuer be digested: howbeit, with meats they are not vnwholsom, and yet for the most part swim they will aloft, and ride vpon a mans stomacke. A wonderfull thing in their nature: they cannot abide oile in any wise, but water they loue well; in so much, as if they be cut off, or fallen from the place where they grew, they wind and creep therinto, if it be but a little way off: contrariwise, flie they will as fast from oile, if a man set it by them, and in case any thing be in their way to let them, or that they hang still vpon their plant, a man shall perceiue how they wil turn vp and crook, to shun & auoid it. This amitie to the one, and enmity to the other, may be seene euen in one nights space: for if a man set vnder them, 4 fingers off where they grow, a vessel with water ouer-night, he shal see by the morning that they will come downe to it: contrariwise, let oile stand the like distance from them, shrink they wil from it, and hook vpward. Marke another experiment in the cucumber. If when it hath don flourishing, you enter the knot of the fruit into a long cane or trunk, it will grow vpon a wonderfull length. But behold a very straunge and new fashion of them in Campaine, for there you shall haue abundance of them come vp in forme of a Quince. And as I heare say, one of them chanced so to grow first at a very venture: but after from the seed of it came a whol race and progeny of the like, which therupon they cal Melopepones, as a man would say, the quince pompons or Cucumbers. These neuer hang on high, but go low by the ground, and gather round in form of a globe. A strange case it is of this kind: for, ouer and besides their shape, their color, and savor different from the rest, they are no sooner ripe, but presently they fall from the stele or taile wherto they grew, notwithstanding they hang not hollow from the ground, where their owne poise might weigh them downe. *Columella* tells of a pretie deuise that he hath of his own, how to keep of them fresh all the yere long: chuse (quoth he) the biggest bramble you can meet with among a thousand, translate it into a warm sun-shine bank, and there replant it: then cut it off, leauing not about 2 fingers breadth from the root about the ground [but this must be don about the Spring Equinox in mid-March:] then take a Cucumber seed, & set it within the soft pith of the said bramble, bank it will round about with fine fresh mould & dung blended together: This is the way, he assureth vs, to make that the roots therof bearing such cucumbers or Melons, will abide the greatest cold in Winter, and neuer shrink at it: of cucumbers, the Greeks haue set down 3 kinds, to wit, the Laconick, the Scythialick & the Boeotick. Of which as they say, the first sort only they be that loue waters so well: some there be who prescribe to take the seed of Cucumber or Melon & to temper it in the iuice of a certain heerb stamped, which they cal *Culix, & then to sow it, perswading vs that we shal haue fruit therof without any seed.

Of the like nature (I meane for their manner of growing) be the Gourds. Winter and al cold weather they cannot endure: they loue also places wel watered & dunged. As wel Gourds, as the cucumbers or Melons aboue said, are commonly sowed between the Equinox in March, & the Sun stand in Lane, provided alwaies, that their seed ly in a trench within the ground, a foot & a halfe

A halfe deepe. But in very deed, the best and meetest time to sow them is about the feast Parilia, how soeuer there be some would haue the seed of gourds to be put into the ground presently after the Calends or first day of March: but of cucumbers about the Nones, i. the 7 day thereof, or at farthest, by the feast or holy daies of *Minerva*, named Quinquatrus. They loue both alike to creep and cawle with their winding top branches or tendrels, and gladly they would be clambering vpon walls, and climbing vp to the house rooffe, if they can meet with any rough places to take hold by; for naturally they are giuen to mount on high. Howbeit, their strength is not answerable to their will and desire: for stand they cannot alone without the help of some props, forks, or railles, to stay them vpright. Exceeding forward and swift they be in growth. They run on end when they are set on it: and if they may be born vp & sustained in maner aforesaid, they will gently ouerthade galleries, walking places, arbors, frames, & allies vnder them in a garden, and that right quickly. In regard of which nature and behavior of theirs, two principall kindes there be of them, the one Camerarium, as one would say, the frame or trail. Gourd, and cucumber, which climbeth aloft; the other Plebeium, i. the vulgar and common, which creepeth along the ground beneath. In the former kind it is worth the noting, to see how the fruit (heavy as it is) hang eth stiffe poised as it were in the wind, and will not stir, notwithstanding the stele whereto it groweth be wondrous fine and final. Moreover, Gourds also may be fashioned in the head euery way as a man will, like as the Cucumbers or Melons before named: and specially within wicker cases made of pliable officers, into which they are put for to grow & to take their form, so soon as they haue cast their blossom. The nature of them (I say) is to receiue what figure a man will force and put them to: but commonly shaped they are in their growth like to a Serpent, winding and turning euery way. There haue bin known of them (such I meane as were of the traile kind) being led vpon a frame from the ground, and permitted to run at libertie, which grew to an incredible length, for one of them hath bin seen 9 foot long. As for cucumbers, they bloom not all at once, but by piece-meale, floure after floure, now one and then another: yea, and floure vpon floure, one vpon the head of another. How soeuer the Cucumber loueth waterish grounds, yet can he abide drier places also. Couered al ouer this plant and fruit is with a white down, euen at the first: but especially all the while he is in his growth.

Gourds are imploied sundry waies, and to many more vses than Cucumbers. For first, their yong and tender stalks be very good meat, and being dressed, are serued up as a dish to the table: but the rind is of a cleane contrary nature. Gourds of late time came to be vsed in stoues and baines for pots and pitchers: but long before that, they stood in stead of rundlets or small barrels to keepe wine in. The green of this kind hath a tender rind, which must be scraped notwithstanding before a dish of meat can be made thereof. And certes, albeit Gourds be of digestion hard, and such as will not thoroughly be concocted in a mans stomacke, yet they are taken to be a light, mild, and wholsom meat, as they be handled and dressed diuers waies, for that they make not a mans belly to swell, as some meats doe. Of those seeds which be found within the gourd next to the neck therof, if they be set, come the long gourds commonly: & such lightly you shall haue ingendred of those also that are in the bottom, howbeit nothing comparable to the other. Those that lie in the miditt bring forth round ones: but from the seeds that are taken out of the sides, ordinarily there grow the shorter sort of Gourds, such as be thicke and broad. These grains or seeds would be handled in this manner. First they are dried in the shadow, and afterwards when a man list to sow them, they ought to be steeped in water. The longer & slenderer that a Gourd is, the better meat it yeelds, and more pleasant to be eaten: and therefore it is, that they be thought more wholsome which grew hanging vpon trailes; such indeed haue least store of seed within them. Howbeit, wax they once hard, away with them out of the kitchen, for then they haue lost all their grace and goodnes which commended them to the cooks dresser. Such as are to be kept for seed, the manner is not to cut vp before winter: and then are they to hang or stand a drying in the smoake, as proper stufte and implements to be seen in a country house, to keepe, as good chaffer, seeds for the gardner against the time. Moreover, there is a means deuised, how to preserve them and cucumbers too, for meat, sound and good, almost til new come; & that is, by laying both the one and the other in a kind of brine or pickle. Some say also, that they may be kept fresh and Greene, interred in a caue or ditch vnder the ground in some darke and shady place, with a good course or bed of sand laid vnder them, and well covered afterward with dry hay, and earth vpon the same in the end. Ouer & besides, as in all plants

* *Cucumis*
* *Sylvestris*
* *Colocynthis*
or, *Coloquin-*
tida.

and herbs in maner of the garden, there be both wild and tame: so is there of Gourds and Cucumbers both a certain *sauage kinde. Such are not for the kitchen, but for the Apothecaries shop, and good only in Physick: and therefore I will put off for this present the discourse of them & their nature, reseruing them for their feuerall treatises in other books concerning such medicinable simples.

As touching the rest of garden plants, which are of the like cartilage and pulpos substance, they be all the sort of them roots growing hidden within the ground: amongst which, I might seem to haue written already fully and sufficiently of Rapes and Turneps, but that the Physicians haue obserued in them both sexes, to wit, masculine & foeminin, for the rounder kind they will haue to be the male, but the broader and flatter sort, which also are somewhat hollow, they account the female: and these last they hold to be the better far, and more pleasant, as being easier to be kept and condite: which also, if they be often remoued and replanted, will turn to be males. Physicians likewise haue set downe sixe kinds of Nauewes, namely, the Corinthian, the Cleonaean, the Liorthasian, the Boeotian, and that which simply by it self they called the green Nauew. Of all these, the Corinthian Nauews grow to a great bignes, and in maner all the root is seen naked about ground: for this is the only kind that couereth to be aloft, and groweth not downward into the earth as the rest do. As for the Liorthasian (some call it also the Thracian) of all others it will abide and endure frost and cold weather best. Next to it is the Boeotian nauew, sweet in tast, differing from the rest in the notable shortnesse and roundnesse withall that the root carrieth; nothing at all like to the Cleonaean, which is passing long. Generally this is obserued as a rule, that all Nauews, the slenderer, smaller, and smoother leaues that they beare, the more pleasant is their root to the tast: and contrariwise, the rougher that they be, the more cornered also and prickly, the bitterer they are. There is a wild kind of them besides, the leaues whereof resemble Rocket. The best Nauews that are sold at Rome, be those that come from Amiternum in Bruzze. The next to them in goodnes are those of Nursium. In the third place are they to be ranged which our country * about Verona yeelds. As concerning all things els, and namely the maner of sowing them, I haue said enough in the treatise of Rapes or Turneps.

As for Radishes, their roots do consist of a rind without, & a cartilage or pulpos substance within: and verily many of them are known to haue a thicker skin or rinde than the barke is of some trees: bitter such are, more or lesse, according to the thicknes of the said rind: otherwhile also the rest is all pith, and as hard as wood. All Radishes breed wind wonderfull much, & prouoke a man that eateth of them, to belch. A base and homely meat therefore it is, and not for a gentlemans table, especially if it be eaten with other worts, as Beets: may if a man take them with vniue olives condite, he shall neither belch or rift wind so much, ne yet so foure and stinking will his breath be afterwards. The Egyptians make marvellous great account of radishes, for the plenty of oile that they draw out of the seed: and therefore a great desire they haue to sow them if they may: for as they find it more gainfull than corn, so they pay lesse tribute & custom in regard of that commoditie, and yet there is nothing yeeldeth more abundance of oile.

* The Greeks haue made three sorts of Radishes, differing all in leafe: the first crisped and curled like a ruffe, the second smooth and plain, the third wild and sauage; and these wild ones verily haue smooth leaues, but short and round: plentiful also they be, and otherwise full of branches: a rough and harsh tast they haue, howbeit medicinable they be, and as good as a purgation to loosen the belly and make it laxatiue. As for the other two former kinds, a difference there is in the seed, for in some it is very fair & good, in others as small and bad: howbeit these imperfections light vpon none but such as haue the crisped and frizled leaues. * Our countrymen here in Italy haue made other kinds thereof; to wit, Algiclenfe, so called of the place: long they be, transparent and cleare, that a man may see through them. A second sort there be fashioned in maner of a Rape root, and those they call Syriaca, the sweetest for the most part of all others, and tenderest, such also as will hold out best against frost and winter weather. Yet the principal and very best indeed are those, which as it should seem were but lately brought out of Syria (at leastwise the seed of them) for that in no writers there is found any mention made of them: and they will continue all winter long.ouer and besides all these, there is one sauage kind of them more, which the Greeks name Agrion: the inhabitants of Pontus, Armon; others, Leuce; and our countrymen giue it the name of Armoracia: more shew it maketh in leafe than in the root or all the body besides. Moreouer, the best token to know good Radishes by, is their stem

* or rather
Italic.

* Theophrastus
writeth all this
of *Brassica*.
J. Colewort.
See how *Pliny*
is ouersent
but that is no
newes with
him.
* Here he see-
meth to come
again to the
radish indeed.

A stem or stalk: for such as bite at the tongues end, haue rounder and longer stems than the other that be mild: they haue long and hollow gutters also: the leaues besides are more bitter and vnsauorie, cornered, more rough, and vntoward to be handled. Radish seed would willingly be sowne in a loose or light ground, and rather lesse moist enough: it cannot abide rank mucke, but contenteth it selfe with rotten chaffe or pugs, and such like plain mullock. It likes and thrives so well in cold countries, that in Germanie a man shall haue their roots as big as pretty babes. To haue Radish roots in the spring, the seed would be sowed presently after the Ides or 13 day of Februarie: and a second time again about the feast of * *Vulcan*, which is indeed the better season for Seednes. Many there be that put the seeds into the ground in March, Aprill, and September. When they are come vp and begin to grow to some bignesse, it is very good to enterre and couer with mould round about the leaues, now one, and then another; but in any case to banke the roots well with earth: for looke how much appeareth bare about ground, proues either to be hard, or els fungous and hollow like a Kex, and nothing good to be eaten. *Aristomachus* would haue them to be dript from their leaues in winter, & in any hand to be banked well about, that the water stand not there in any hollow furrow or hole lower than the other ground; promising vs by this means, that they will proue faire and big against Summer. Some haue reported, that if a man make a hole in the ground with as big a stake as he wil, and strew or lay it in the bottom with a bed of chaffe six fingers deepe, and on it bestow his seed, with muck and mould heaped thereupon, the roots will grow so big as to fill vp the said hole full. Howbeit, in briefe, Radishes are best nourished and maintained in salt grounds: and therefore with such kind of brakish waters they vse to be watered, which is the reason, that in *Aegypt* there are the sweetest and daintiest Radishes in the world, for that they are bedewed and sprinkled with Nitre. And verily it is thought, that they will lose all their bitternes whatsoever if they be corned or seasoned with salt, yea and become as if they were sodden and condite: for be they boiled once, they proue sweet and seruie to be eaten in stead of Nauewes. And yet Physicians giue counsell and prescribe, That they should be eaten raw in a morning with salt, when a man is fasting, for to gather into the stomack the sharp humors and excrements that charge the belly & entrails: and thus taken, they are of opinion, that it is a good preparatiue to vomit, and to open the passages well for to auoid those superfluities. They giue out also, That the iuice of Radish roots is singular good and necessarie for the midriffe, and the praecordiall parts about the heart; and namely, that nothing else but it, was able to cure a Phthisicke or vicer of the lungs, which had settled deep and taken to the heart: The experiment and prooue whereof was found and seen in *Aegypt*, by occasion that KK. there, caused dead bodkes to be cut vp, and anatomies to be made, for to search out the maladies whereof men died. It is reported, that the Greeks (as they be otherwise vaine in all their actions) so highly preferred the Radishes before other meats, in regard of their good nourishment, that whereas in an oblation out of the garden-fruits to be offered vnto *Apollo* in his temple at Delphos, they dedicated the Beet in fluer, and the Rape or Turnep in lead, they presented a Radish in beaten gold. A man may know hereby, that *Manius Curius* the great General of the Romane armie, was not that countreyman borne, whom the Samnite Embassadors (when they brought to him a great present of gold [vpon condition to surcease arms] which he meant to refuse and not accept at their hands) found roasting of a Rape or Turnep root at the chimney fire, according as we find in the Annals and Chronicles of the Roman history. To come again vnto our Radishes, *Moschian* the Greek writer so highly esteemed this root, that he compiled one whole booke of the Radish, and nothing els. Indeed Radishes are thought excellent good with meats in Winter time: howbeit they alwaies wear and marre their teeth who eat of them: and yet I assure you the wil polish Tuorie, which is nothing els but the Elephants root. * Between a Vine and a Radish, there is by nature a secret enmitie and exceeding great hatred, in so much as if Radishes be sowed neere vnto her, she will writh and turne away sensibly from them.

Touching other sorts of cartilage or pulpos plants in the garden, whereof I haue before spoken, they be all giuen to run much to pith, and to be of a more woodie substance. A man would maruell therefore that they should all tast so strong and sharpe as they doe. Of which there is one kind of wild Parsnep growing of it selfe, which in Greek is * called *Staphylinas*. A second sort is set of a plant with the root and sowed of seed, either in the prime of spring, or els in Autumne: how soeuer *Hippocras* would haue them to be put into the ground in Februarie, August, September,

* It *Crat.* *Torn*
or as some
think, 13 *Cal*
Ion, the 23
or 22 day of
May. This feast
is strained
all. *L. 3. ca.*

* Here *Pliny*
forgetteth
himselfe a-
gain: for this
is verified of
the Colewort,
and not of the
Radish.
* Some call
these *Mad-*
nips.

September, and October; and that the plot where they are to grow, should be digged and delued very deep. This root beginneth to be good at the first yer end, but better it is if it be two yer old: howbeit both the one and the other, is counted wholsommer in Autumn than at any other season of the yeare, especially boiled and serued vp betweene two platters, and yet dresse them so well as you can, they will not be rid of that strong, ranke, and churlish smacke which it hath. As for * Hibiscum, it differeth from the Parsnip aforesaid onely in this, That it is more slender and smaller, rejected altogether from the table, and condemned for no good meat; howbeit medicinable, and vfed much by the Physitian. A fourth kind there is beside, resembling also the Parsnip, which our countrey men the Latines name the French Parsnip, but the Greekes Daucus, [i. the yellow Douke or Carot] which they haue subdiuided into foure speciall sorts. The * Skirwirt root or white Parsnip, (which indeed would be written among other Physicke plants) was likewise in great name and credit by the meane of the foresaid Emperour *Tyberius* who was very earnest to haue them yearly brought out of Germanie, and euer he would cal for them at his own table. And indeed about Gelduba (a castle situat vpon the riuier Rhene, in Germanie) there was an excellent kind of them that grew to be passing faire, from whence he was ferued: whereby it appeareth, that this plant loueth cold regions well. These roots haue a string in manner of a pith or sinew, running all the length thereof, which the cooke vseth to take forth after they be foddren; yet for all that there remaineth still in them a great deale of bitternesse: howbeit being wel tempered & delaiued with a sauce of mead or honyed wine, and so eaten with it, euen the same bitternesse turneth to a good and pleasant tast. The greater Parsnip *Pastinaca*, hath the like nerue or string aforesaid (such onely I mean as are a yere old.) The right season to sow the Skirwirt or Parsnip Sifer, is in these moneths, to wit, Februarie, March, Aprill, Aegust, September, and October.

* Some take it for *Althaea* or the marsh Mallow.

* Sifer.

* Table.

* Carrots, some vnde Carrots, i. Figs.

The * Elecampane hath a root shorter than the Skirwirts or Parsnips aforesaid, but more muscous and fuller as it were of brawn; bitterer also: in which regards, if it be taken simply alone, it is aduerse and contrarie to the stomack; but joined & confected with some sweet things among, it is very holsom. And many deuises haue bin practised with it to take away that harsh and vntoward bitternesse which it hath, whereby it is become toothsome and pleasant enough: for some there be who stamp it drie and so reduce it into a powder: then they mix it with some sweet liquid syrrop, and being thus tempered, serue it vp. Others sceth it in water and vinegre mingled together, and so keepe it condite. Infused also it is many waies, and afterwards either K persuered in cuit, or incorporat with hony in manner of a conserue, or els with dried Raisons of the Sun, or last of all with faire and fat Dates. Moreover, diuers there be, who after another sort make a confection therof, namely with Quinces, with Soruises, or Plums, mixing therewith one while Pepper, another while Thym. And I assure you this root thus confected (as is aforesaid) is singular good for faintings; and especially quickneth the dulnes and defect of the stomack. The Empreffe *Julia Augusta* passed not a day without eating the Elecampane root thus confected and condite: and therupon came it to be in so great name and bruit as it is. The seed thereof is needlesse and good for nothing: therefore to maintaine and increase this plant, gardeners vse commonly to set the joints cut from the root, after the order as they doe Recds and Canes. L The manner is to plant them as well as Parsnips, Skirwirts, and Carrots, at both times of seed. nes, to wit, the Spring and the Fall: but there would be a good distance betweene euery seed or plant, at least three foot, because they spread and braunch very much, and therewith take vp a deale of ground. As for the Skirwirt or Parsnip Sifer, it will do the better if it be remoued and replanted.

It remaineth now to speak in the next place of plants, with bulbous or onion roots and their nature, which *Cato* recommendeth to Gardeners, and he would haue them to be set and sowed about all others: among which, he most esteemeth them of *Megara*. Howbeit, of all this bulbous kind, the Sea-onion *Squilla* is reputed chiefe and principall, notwithstanding there is no vse of it but in Physicke, and for to quicken vinegre. As there is none that groweth with a bigger head at the root, so there is not any more ægre and biting than it. Of these Sea-onions, there be two kinds medicinable; the male, with the white leafe; the female, with the blacke. There is a third sort also of *Squilla*, which is good for to be eaten: the leaues whereof be narrower, and not so rough and sharp as the other, and this they cal *Epimenidium*. All the sort of these squilles are plentiful in seed: howbeit they come vp sooner if they be set of cloues or bulbes which grow

A grow about their sides. And if a man would haue the head of the root wax big, the leaues which vsually be broad and large, ought to be bended downe into the earth round about, and so couered with mould; for by this means all the sap and nourishment is diuerted from the leafe and runneth backe into the root. These Squils or sea-onions grow in exceeding great abundance within the Balear Islands and Ebusus, as also throughout all Spaine. *Pythagoras* the Philosopher wrote one entire volume of these onions, wherein he collected their medicinable vertues and properties, which I meane to deliuer in the next booke.

As touching other bulbous plants, there be sundry kinds of them, differing all in colour, quantity, and sweetnesse of tast: for some there bee of them good to be eaten raw, as those of *Cherrhonesus Taurica*. Next vnto them, are they of Barbary, and most commended for goodnesse, and then those that grow in *Apulia*. The Greekes haue set downe their distinct kindes in these terms, *Bulbine*, *Setanios*, *Pythios*, *Acrocorios*, * *Egylops*, and *Sisyrrinchios*. But strange it is of this *Sisyrrinchios* last named, how the foot and bottom of the root wil grow downe stil in winter, but in the Spring when the Violets appeare, the same diminisheth and gathereth short vpward, by which means the head indeed of the root feedeth and thriveth the better. In this rank of bulbous plants, is to be set that, which in Egypt they call *Aron*, [i. Wake-Robin:] for bignesse of the head it commeth next to *Squilla* before said: the leaues resemble the herb *Patience* or garden Dock: it riseth vp with a freight stem or stalke two cubits high, as thicke as a good round cudgell. As touching the root, it is of a soft and tender substance, and may be eaten raw. If you would haue good of these bulbous roots, you had need to dig them out of the ground before the spring; for if you passe that time, they will presently be the worse. You shall know when they be ripe and in their perfection by the leaues; for they will begin to wither at the bottom. If they be elder, or if their roots grow small and long, they are rejected as nothing worth. Contrariwise, the ruddy root, the rounder and the biggest withall, are most commended: know this moreouer, That the bitternesse of the root in most of them, lyeth in the crowne (as it were) or top of the head; for the middle parts be sweeter. The ancient writers held opinion, That none of these bulbous plants would grow, but of seed onely: howbeit, both in the pastures and fields about *Preneste*, they come vp of themselves; and also among the corn lands and arable grounds of the *Rhenians*, they grow beyond all measure.

* rather, *Hemivocantes*.

D

CHAP. VI.

¶ Of the roots, leaues, floures, and colours of Garden-herbes.

A LI Garden plants ordinarily, put out but one single root apiece; as for example, the Radish, Beet, Parsley, and Mallow: howbeit the greatest and largest of all others is the root of the herb *Patience* or garden Docke, which is knowne to run downe into the ground three cubits deep. In the wild of this kind (which is the common docke) the roots be smaller, yet plump and swelled; whereby, after they be digged vp and laied about ground, they wil liue a long time. Some there be of them that haue hairy strings or beards hanging to the roots, as namely Parsley or Ach, and Mallows. Others there be againe, which haue branching roots, as the *Basill*. As the roots of some be carnos and fleshie altogether, and namely of the Beet, but especially of Saffron; so in others they consist of rind and carnositie both, as we may see in Radishes and Rapes or Turneps. And ye shall haue of them that be knotty and full of joints, as for example, the root of the *Queich* grasse or *Dent-de-chien*. Such hearbs as haue no freight and direct root, run immediatly into hairie threds, as we may see plainly in the Orach and Bleet: as for the sea Onion *Squilla*, and such bulbous plants, the garden Onions also and Garlickes, they put forth their roots freight, and neuer otherwise. Many hearbes there be, which spring of their own accord without setting or sowing, and of such many there be that branch more & cloue in root than in leafe, as we may see in *Alpalax*, * *Parietarie* of the wall, and Saffron. Moreover, a man shall see these hearbes floure at once together with the Ash, namely, the running or creeping Thyme, Southernwood, Naphewes, Radishes, Mints, and Rue; and by that time as others begin to blow, they are ready to shed their floures: whereas *Basill* putteth forth floures by parcels one after another, beginning first beneath and so going vpward by leasure: which is the cause that of all others it is longest in the floure. The same is to be seene in the herb *Heliorropium* (i. Ruds or Turnsol.) In some the floures be white, in others yellow, and in others purple.

* *Parietaria*.

As

As touching the leaues of herbes, some are apt to fall from their heads or tops, as in Origan and Elecampane, yea, and otherwhiles in Rue, if some iniurie be done vnto it. Of all other herbes, the blades of Onions and * Chibbols be most hollow. Where by the way I cannot ouerpasse the foolish superstition of the Egyptians, who vse to sweare by Garlicke and Onions, calling them to witness in taking their othes, as if they were no lesse than some gods. Of Onions the Greeks haue deuised sundry kinds, to wit, the Sardin, Samothracian, Aliden, Setanian, Schifta [i. the clouen Onion] and Afcalon [i. little onions or Scalions] taking that name of Afcalon a city in Iury. They haue all of them this propertie besides, to make ones eyes water, and to fetch out teares, being smelled to, especially they of Cypros: but the Gnidian onions least of all others cause one to weep. In all kinds of them the body of the root consisteth of a certaine fatty pulp or cartilage. For quantity the Setanian be least, except the Tusculane: howbeit such are sweet. The clouen onions & the scalions aforesaid are proper for to make sauce of. As touching that kind of them called Schifta, gardeners leaue them al winter in the ground with their leaues or head standing: in the spring they pluck off the said leaues, and then shal you see spring forth others vnderneath, according to the same clifts and diuisions, whereupon they tooke the name Schifta. After which example, the like practise in all other kindes is prescribed, namely, to pull the leaues off, that they should grow rather big in root, than run vp to feed. The Afcalonian onions haue a proper nature & qualitie by themselves; for they be barren as it were, from the root, and therefore the Greeks would haue them to be sowed of seed, and not otherwise to be set of heads. Besides, that they should be translated & replanted again late, about the spring, at what time as they put forth blade: for by this vsage (say they) you shall haue them burnish and grow thicke, yea, and then make hast for amends of the former time foreslipt. These must be gathered betimes, for after they be once ripe, quickly will they rot in the earth, if you make not the better hast to pluck them vp. If you set or plant their heads, a stalke they will put forth and feed vpon it, but the onion it selfe will consume and come to nothing. Moreouer, there is a difference obserued in the colour of onions; for they that grow in Samos and Sardis, be most white: those also of Candy be much esteemed; and some there be who doubt whether they be the same that the Afcalonian, or no: for that if they be sowed of seed, their heads or roots will grow big: set them, they will be all stem and seed, and no head at all. As for the relish or taste that onions haue there is no great diuersitie, but that some are sweeter than other. Our onions here in Italy be all of two sorts principally: the one which serue for sauce to season our meats, which the Greeks call Gethyon Chibbols; but our countrymen the Latines, Pallacana: these are sowne commonly in March, April, and May: the other is the great headed onion, and these be put into the ground either after the Equinox in Autumne, or els after mid-February, when the West wind Favonius is aloft. Moreouer, onions are diuided into sundry sorts, according to the degrees of their pleasant or vnpleasant and harsh tast; to wit, the African, French, Tusculan, and Amiterium. But euermore the best are the roundest. Item, the red onion is more keen and angry than the white: the dry, and that which hath lien, is more eagre and sharp than the green newly drawn: the raw also more than the foddren: and finally, the dry by it selfe more than that which is condite and preferued in some liquor for sauce. The Amiterium onion is planted in cold & moist grounds: and this alone would be set of a head in manner of garlick cloues, whereas the rest will come of seed. Onions, the next summer following after they be sowne, put forth no seed, but head only, which groweth, and the leafe or stem drieth and dieth. But the next yere after, by way of interchange, it bringeth forth seed, and then the head rotteth. And therefore euery yere they vse to sow onion seed apart in one bed by it selfe, for to haue onions: & set onions for seed in other, by themselves. The best way to keep onions, is in corn, chaf, and such like pugs. As for the Chibbol, it hath in manner no distinct head at all, but only a long neck, & therefore it runs in manner all to a green blade; the order is to cut and sheare it often in manner of porret or leeks; which is the cause that they sow it also of seed, and do not set it.ouer and besides, before we sow onion seed, the plot, by mens saying, ought to haue three diggings, for to kill and rid out of the ground the roots of hurtful weeds: and ten pound of seed ordinarily wil sow an acre. Here and there amongst would be Sauerie sowne, for the better will the Onions like and prosper with the companie of that hearbe. Also, after the ground is sowne, it requireth weeding, farching, or raking, foure times at the least, if not oftner. Our neighbours in Italie sow the Afcalonian Onion in the moneth of Februarie: whose manner is also to gather Onion seed

- A feed when it beginneth once to wax black, before it fall to wither.
- Seeing now that I am entred thus far into a discourse of Onions, I shal not do amisse to treat of Leeks also, in regard of the neare affinitie betweene them: and the rather, for that it is not long since, that the Porret kind which is often kept downe with clipping and cutting, came into great name and credit, by occasion of the Emperor Nero; who vsed for certaine daies in euery moneth for to scoure his throat, and cleare his voice, and to take it with oile, on which daies he did eat nothing els, nor so much as bread. Wee vse to tow them of seed, after the Equinox in September: and if we meane to make cut Leeks thereof, the seed would be sowed the thicker. These Leeks are kept downe with clipping and shearing still vntill the root faile, without removing them out of the same bed where they were sown: and alwaies they must be plied with dung. But before they be cut, nourished they ought to be, vntill they haue gotten a good head.
- B When they are wel grown, they are to be translated into another bed or quarter, & there replanted: hauing their vppermost leaues lightly shriged off, without comming to the heart or marrow which is their body next to their roots: and their heads set deeper downward, yea, and their vppermost pellicles and skins sluied from them. In old time they vsed to put vnder their root a broad flint-stone, or els a tile, which did dilate their heads within the ground, and make them spread the better. This they practised also in other bulbous plants, as Onions, &c. thereby to haue the fairer heads. But now in these daies the maner is, lightly to barbe & pluck off with a farching hook, the beards or strings of the root; that being thus nipped and lipped (as it were) they might nourish the body of the plant, & not distract and suck away the humor, which is the nutriment of the whole. This is notable and wonderfull in the Porret, that ioying & liking as it doth in muck and fat ground, yet it cannot abide watery places. Howbeit, in these we must be ruled by the property of the ground, which is al in all: the principal leeks be in Egypt: the next are those of Ortia & Aricia. Of the cut Porret or vnset Leeks be two kinds: the one runneth mightily into a green blade, and the leafe thereof hath very conspicuous & euident cuts; & this is that the Apothecaries vse so much: the other hath a more pleasant and yellowish leafe, and the same rounder, the gashes or cuts whereof are smaller, & not so apparent to the eie. The voice goeth, & generally it is reported, That Mela a knight or gentleman of Rome by his place, & Procurator vnder Tiberius the Emperor, being for some misgouernment in that office, brought into question and accused, & thereupon sent for peremptorily to make his personal apparance, despairing vtterly of life, tooke the weight of three Roman siluer deniers in the iuice of Leeks, and dranke it off: whereupon he died incontinently without any paine or torment at all. It is commonly said, That if a man take a greater dose or receipt thereof, it will do no harm, nor any danger will insue thereupon.
- As touching Garlick, it is held for certain, That it is a soueraigne medicine for many griefs and maladies; especially such as are incident to the country peasants and rustical people, who hold it to be as good as a Treacle. The Garlike head is couered and clad all ouer with certaine very fine and thin pellicles or membranes, which may be parted and diuided one from another, vnder which you shall see it compact and ioined (as it were) together of many cloues in manner of kernels, and those also inclosed each one apart within their ieuall skins. Of a sharp and biting tast it is. The more keen and eager also you shall find it, as it hath more of those cloues aforesaid in one head. The aire that comes from it, is as offensive as that of the onion, & maketh their breath as strong who eat it: howbeit, foddren if it be, it is euery way harmles: the difference and diuersity of Garlick ariseth first, from the circumstance of the time, whereby you shall see a kind of hasty Garlick, that in 60 daies will be ripe and come to perfection: then, in quantity; for some grow bigger in the head than other. And of this sort is that which wee call in Latine Vlpicum; and the Greeks, some the Cyprian Garlick; others, * Aphroscorodon: so much commended in Africke, that it is held for the most principall dish of meat that a Husbandman of the country can eat: and bigger it is than our common Garlick. Being brused and braied in a mortar together with oile and vineger, it is wonderfull to see what a fume and froth will arise thereof, and to what an height it will swell thereby. Some gardeners there are, who forbid to set either this Vlpicum, or the common Garlick in any euen, flat, and leuell bed; but to put them in little hillocks [in manner of hop hils] raised in forme of castles or turrets, three foot distant one from another. Now, wheresoever these cloues be set in hill or plain, they ought to lie foure fingers breadth asunder. And this would not be forgotten, That so soon as they shew three leaues

* or, Anisicorodon.

once, they would be fared, and the mould raised from about them: for the oftner they be thus served and laid bare, the fairer heads they will bring. When they begin to grow big and come to their full maturity, the stalks that they run vp vnto, must be troden downe and moulded ouer: and this is to prevent, that they should not be ouer-rank in blade. In cold countries it is thought better and more profitable to set them during the spring, than at the fall of the lease. Moreouer, if you would haue Garlick, Onions, and such like, not to smel strong and stink so as they do, the common opinion & rule is, that they should not be set or sown, but when the moon is vnder the earth, nor yet be gathered and taken vp but in her coniunction with the Sun, which is the change. But *Menander*, a Greeke writer saith, That there needs none of all these ceremonies for the matter: for if a man would not haue his breath stink with eating of Garlick, let him, do no more (quoth he) but take a Beet root roasted in the embers, and eat it after, it shall extinguish that hot and strong fauor, and cause the breath to continue sweet. There be who thinke that the fittest time of setting both the common Garlick, & also the greater kind named *Vlpi-cum*, is between the two fest and ordinary feasts * *Comptalia* & * *Saturnalia*. As for the vulgar Garlick, it cometh vp also of seed, but slowly, and late it will be first ere it attaine to the full prooffe: for the first yere it getteth a head no thicker than Leeks; the next yere after, it begins to diuide into cloues; and in the third it is consummate and grown to perfection: and such vn-set Garlick, some are of opinion to be fairer and better than the rest. Howbeit, Garlick indeed should not be suffered to bol and run vp to seed, and therefore the blade therof ought to be wreathed, that it may gather more and stronger in the head, and that the cloues afterwards might be set in stead of seed for increase. Now if a man haue a desire that both Garlick and Onions may be kept long for his provision, their heads must be dipped and wel plunged in salt water, warm; by this means indeed last they will longer without spurning, and be better for any vse wee shall put them to, saue only to be set and replanted in the ground; for barren will they be, and neuer prosper. And yet diuers there are, who thinke it sufficient at the first to hang them in the smoke ouer quick and burning coles; as being perswaded, that this will serue wel enough to keep them from growing; for certaine it is, that both Garlick and Onions will put forth blade aboue ground, and when they haue so done, come to nought themselves, as hauing spent all their substance and vertue. Some are of this mind, that the best preferring of Garlick as well as of Onions, is within chaffe.

There is a kind of Garlick growing wild in the fields of the own accord, which they call in Latine *Alum* [i. Crow Garlick] which being boiled that it should not grow, they commonly throw forth in corn fields for the shrewd and unhappy foules which lie vpon the lands, and eat vp the seed new sown: for presently as any of those birds tast thereof, they will be so drunke and astonied therewith, that a man may easily take them with his hand: yea, and if one stay a little, he shall see them fall asleep therewith. Finally, there is another kind of sauage or wild Garlick called *Vrinum* [i. Beare Garlick] the head whereof is very small, the blade or leaues great and large, and the fauor or sent mild and gentle, in comparison of the rest.

CHAP. VII.

In how many daies euery herbe that is sowed will come vp and appeare aboue ground. The nature of seedes. The manner of sowing any of them: Which they be, whereof there is but one single kind: and which haue many sorts.

AMong all the herbes sowne in a garden, these come vp soonest; to wit, Basil, Beets, Navews or Turneps, and Rocket; for by the third day the seed will breake and spurt. Dill seed will chit within foure daies, Lettuce in fve, Radish in sixe, Cucumbers and gourds in a seven-night, but the Cucumber first. Cresses and Mustard seed in fve daies, Beets in six by Summer time, and by winter in ten, Orach in eight daies, Onions in 19 or 20 at the farthest, Chibols in ren or twelue at the most. Coriander seed is more stubborne, and will not shew so soone. Saue-rie and Origan seed lieth thirty daies ere it come: but of all others Parsley seed is latest ere it spring; for when it cometh vp soonest, it is forty daies first: but for the most part it lieth fifty daies before it appeare. Something there is also in the age of the seed: for the newer that the seed is either of Leeks or Chibols, Cucumbers & gourds, the more halt it maketh to be aboue ground: contrariwise Parsely, Beets, garden Cresses, Sauery, Origan, and Coriander, grow sooner

Aner of old seed. But the Beet seed hath a strange and wonderful quality aboue the rest: for it will not come vp all in one and the same yere. But some in the first, others in the second, and the rest in the third. And therefore sow as much seed as you will, yet shall you haue it grow but indifferently. There be herbes which wil grow and beare but one yere and no more: and there be other again which will continue many yeares together, as for example, Parsely, Porret, & Chibbols. For, sow these but once in a garden, they will beare from yere to yere from the same root, or els flow themselves. The most part of herbes do beare round seed, in some the seeds are long; in few, broad and flat in manner of a leafe, as in Orach. You shall haue seed also narrow & chamfered; like a gutter tile, as that of Cumin. Moreouer, there is a difference in colour, for some seeds be white, others black: in hardnesse also and softnesse; for some be harder or softer than others. **B** Some seeds at euery branch of the plant, are contained within cods or bladders, as we may see in Raddish, Senuie, and Turneps or Rapes. The seeds of Parsely, Coriander, Dill, Fenell, & Cumin, grow naked & bare. But that of the Bleet, the Beet, Orach and Basil, is inclosed in a huske or hull. Lettuce seed lieth within a downe. As touching Basil afore said, nothing fructifeth more than it: & to the end that it may come vp in more plenty & abundance, they say it should be sowed with maledictions and ill words; for the more that it is cursed, the better it wil speed and prosper, yea, and when it is sowed, the mould of the bed must be parted and rammed down in manner of a pavement. And more particularly, they that sow Cumin, pray to God that it may neuer come vp. Such seeds as lie within an husk, hardly come to be dry and ripe therein: but Basil feed especially, and Gith or Nigella Romana. But they must be all thoroughly dried before they be seedow and fruitfull. This is generall in all herbes throughout, that they wil thrive and grow the better, if their seede bee sowed by heapes one vpon another, than scattering. And certainly both Leeks seed is sown & Garlick cloues set in that wise, namely, bound vp & tied together in some clouts or ragges wherein they be lapped. As for Parsely seed, against it should be sown, there would be an hole made with a little wooden dibil or pin, & therein it must be put with some dung after it. Furthermore, all garden herbes come vp either of seed and cloues set; or els of slips pulled from the mother-plant. Some grow of seeds and sprigs both, as Rue, Origan, & Basil; for euen this herb also last named will abide cutting when it is come to be one handbreadth, or a span high; those cuttings will grow if they be planted. There be that are maintained by root and seed both, as Onions, garlick, and those which haue bulbous roots: likewise, all such as when they haue born yere, leaue a root behind them still in strength & vertue. Of such as grow of roots replanted, their roots continue long & branch much, as we may see in the bulbs, in Chibbols, & sea onions. Others put out branches sufficient, but not from the head or root, as Parsely and Beets. All herbes for the most part, do spring & shute again, if their stalke be cut off; ylesse it be those that haue a smooth stem. And this is most seen in Basil, Raddish, & Lettuce, the stems whereof are cut for many purposes. And as for Lettuce, men hold, that the later spring thereof, when the first is gon, is the sweeter. Certainly, Raddishes eat the more pleasantly, if their leaues be crop off before the master stem or spire be growne big. And this also we observe in Rapes or Turneps; for if you strip them also from their leaues & couer them ouer head with earth, yet will they grow all winter and continue till Summer following. Touching **E** Basil, Sorrel, red Porret or Blects, garden Cresses, Rocket, Orach, Coriander, they are all of one sort, & singular in their kind: for sow them where you wil, they be the same stil, neither are they better in one place than in another. It is a common receiued opinion, that Rue wil grow the better if it be filched out of another mans garden: and it is as ordinary a saying, that stolen Bees wil thrive worst. Some heares there be which come without sowing or setting, as wild Mint, Nep, Endiue, and Penirol. But how focuer there be but one single kind of those before rehearsed, yet on the contrary side, there be many sorts of others, which wee haue already spoken of, and will write more hereafter, and principally of Ach or Parsely.

CHAP. VIII.

Of Garden herbes which serue for to season our meats: their diuers natures, their sundry kinds and severall histories related to the number of 36.

FOr, that kind of Ach which groweth of it selfe in moist grounds with * one leafe, and is not rough, but smooth and plaine, is called in Greeke *Helcoselinon*, i. Smallach. Again, there is ano-

Justus liuius i. for so it should seem that Pliny read in Theophrastus i. whereas indeed it is persicaria, i. with leaves growing thin

another sort, with more leaues, resembling Smallach aforesaid, but that it commeth vp in drie G places, and this the Greeks named Hippocelinon, *i.* Alifanders. A third there is besides found in mountains, named by them thereupon Oreoselinum, *i.* Mountain Ach, or Parsely of the hills: it beareth leaues like Hemlocke, and a little slender root: the seed resembleth Dill seed verie much, but only that it is smaller. And as for the garden Ach, commonly called Parsely, there be many kinds thereof, differing one from another: first in leafe, whereby you shall haue some leaued thick and full, and the same jagged and curled: others thinner, and those also more plain, smooth, and broad. *Nem.* in stalk, which in some is more grosse or thin than in other: in one kind white, in another purple, and in a third of sundry colours.

Of Lettuce, the Greeks haue set downe three kinds: whereof the first riseth vp with so large and broad a stalk, that by their report, little garden wickets were commonly made thereof, in partitions between quarter and quarter. And yet the leafe of this Lettuce is not much bigger than others that be common and serue for pot-herbes: the same also passing narrow, by reason that all the nutriment is otherwise spent in the maine stem. The second hath a round stalk: the third is the broad flat Lettuce which settles neer the ground, called Laconicon, or the Lettuce of Lacedamon. But other writers haue described the distinct kinds thereof, by their colour and the sundry seasons wherein they be set: for (say they) there be black Lettuces, the seed whereof ought to be sowed in January: there be white also, and such would be sowed in March: & there are a third sort which be red, and the fit time of their seednesse is the moneth of April: and according to those authors, all the sort of them are to be removed in yong plants, when they haue growne two moneths. Howbeit, those Herbarists who haue looked farther into the knowledge of Simples, adde more kinds yet vnto the other, to wit, the purple, the crisp, or curled, the Capadocian, & the Greekish Lettuce. As for these of Greece, they are taller in stem than the rest, and broader withall; besides, their leaues be long and narrow, like to those of Endiue or Cichorie. The worst kind of all is that which the Greeks by way of reproofe and reproch for their bitternesse, terme Picris. Yet is there another distinct kind of the black Lettuce, which for the plenty that it yeeldeth of a milky white iuice procuring drowsinesse, is termed Meconis; although all of them are thought to cause sleep. In old time, our ancestors knew no other Lettuce in Italy but this alone, and thereupon it tooke the name in Latine of *Laetuca*. The purple Lettuce which hath the biggest root, they name *Caciliana*: but the round kinde with smallest root and broad leaues, is called * *Astylis* (*i.* the chaste Lettuce, or the ciuill Lettuce: *j* howbeit, some giue it the name of Eunuchij, because of all others it cooleth lust most, and is an enemy to the sports of *Venus*. And to say a truth, all Lettuces are by nature refrigeratiue, and do coole the body, and therefore be they eaten ordinarily in Summer; for they please the stomacke when it is inclined to loath meat, and procureth good appetite. Certes, reported it is of *Augustus Caesar* late Emperour of famous memorie, that he escaped a dangerous disease, and was recovered by the meares of Lettuce, whereunto he was directed by the discreet counsell of *Musalis* Physician. And whereas in times past, folke precisely forbore to eat Lettuce, now there is no doubt or scruple at all made thereof, nay they are so far from abstinence that way, that it is a meat generally receiued and commended; inso much as they haue deuised to keepe it in the syrup of Oxymel, all winter long, for to haue it ready and euer at hand: yea and more than so, men are verily perswaded, that Lettuce will increase good blood.ouer and besides all the sorts of Lettuce before specified, there is yet another kind named in Latine *Caprina*, as one would say, the Goats Lettuce, whereof I purpose to speake more at large among other medicinable herbs. As touching the wild Lettuce called *Cilician*, see how it is crept apace into the garden after it came once to be knowne, and is commended as exceeding good among other herbs there sown and planted: the leafe resembleth the Cappadocian Lettuce, but that it is jagged & broader than it. As for Endiues and Cichories, I cannot tell what to make of them; for neither can they be truly said a kind of Lettuce, nor yet ranged well amongst other herbs. More vnpatient they are and fearfull of winter, than Lettuces, and withall carry vnpleasant strong taste: howbeit their stalks are no lesse acceptable than they. Their yong plants vse to be set in the beginning of the spring, but transplanted afterwards and replanted in the later end thereof. There is a certain wild and wandring Endiue, which the Egyptians call *Cichorie*, whereof I meane to discourse more amply in another place. There hath bin a deuise lately come vp to condite and preferue as well the stems as the leaues of all Lettuces for the winter time, in pitchers & pots, within some appropriate

* See *Celius Rhodiginus* in booke and last chap. antiq. *Lactonium*: & let him tell you, why women call this Lettuce, *Astylis*

A appropriate liquor; as also to dresse and seeth them yong, fresh, and Greene, in a kinde of broth or browesse, and so serue them vp between two platters. And yet where the ground is rich & good; well watered and holpen with dounge, Lettuce may be sowed at all times of the yere: for within two months they will grow to be good big plants, and in as little space come to their full maturity and perfection. Howbeit, the true time and ordinary season, is to sow their seeds about the mids of December, when the daies begin to lengthen, and then to remooue their plants at the comming of the Western wind *Fauonius* in February; or els to sow in that wind, and to replant in March about the Spring *Æquinox*. White Lettuce of all other, can best away with the winter. All Garden-herbs loue moisture, and muck they loue as well, Lettuce especially; & yet I must needs say, that Endiue more than it. Some gardeners there be, that thinke it a great point of cunning to besmeare the roots of Lettuce plants and other such herbs with dung, when they are set, or after they be bared at the root within the ground, to cast in the mould againe and fill vp the place so soon as they be greased (as it were) with muck at the root. Others there be, who practise another feat with them, to make them cabbage the better and grow faire & big, by cutting them vp close to the ground when they are come once to be halfe a foot high, and then be daubing them with green swines dung. It is thought, that white Lettuce come onely of white seed, and yet that is not sufficient, vnlesse there be some sea sand taken fresh from the shore and laid about the heart of the plant where the leaues put forth first, and so reared and heaped vp to the mids; and then to take order that the leaues growing ouer them afterwards, be tied fast vnto them.

C Of all Garden-herbs, Beets are the lightest. The Greeke writers make two kinds thereof, in regard of the colour; to wit, the black Beets, and the whiter, which they prefer before the other, although it be very scant and sparie of feed; these also they call the Sicilian Beets, and for their beautiful white hew and nothing else they esteeme them about Lettuce. But our countrymen here in Italy put no other difference between Beets, but in respect of the two seasons when they be sowed, namely in the Spring and Autumne; whereof we haue these two sorts, the Spring Beets, and the Autumall; and yet they be vsually sowne in Iune also. This herbe likewise is ordinarily remooued in the plant, and so replanted or set againe; it loueth besides to haue the roots medicined with muck, as well as the other abouesaid, yea and it is very wel content with a moist and waterish ground. The roots as well as the leaues or herbage thereof, vse to be eaten with Lentils & Beans; but the best way to eat them, is with Sennie or Mustard, for to giue a taste and edge as it were to that dull and wallowish flatnesse that it hath. Physicians haue set downe their iudgement of this herb, That the roots be more hurtfull than the leafe: and therefore being set vpon the board before all persons indifferently, as well the sound as the sick and crasie, yet many a one maketh it nice and scrupulous once to tast thereof; and if they do, it is but slightly for fashion only, leauing the hearty feeding thereupon to those rather that be in health and of strong constitutions. The Beet is of two diuers natures and qualities: for * the herbage or leafe hath one, and the bulbs comming from the head of the stem, another: but their principall grace and beautie lieth in their spreading and breadth that they beare as they cabbage. And this they come vnto (as the manner is of Lettuces also) by laying some light weight vpon the leaues, when they begin once to gather into a stalk and shew their colour. And there is not an herbe throughout the Garden, that taketh vp greater compasse, with fuellage than dorth the Beet: for otherwhiles you shall see it to spread it selfe two foot euery way; whereunto the goodness and nature of the soile is a great help. The largest that be knowne of these Beets are those which grow in the territory about *Circij*. Some hold opinion, that the only time to sow Beets, is when the Pomegranat dorth blossome: and to transplant them so soon as they haue 5 leaues. A wonderfull thing to see the diuersitie in Nature of these Beets, if it be true; namely, that the white should gently loosen the belly and make one soluble, whereas contrariwise the black doe stay a flux and knit the body. It is as strange also to obserue another effect thereof, for when the Colewort hath marred the taste of wine within the tun or such like vessell, the only fauour and p smell of Beet leaues steeped therein, will restore and fetch it againe.

As touching the Beets, as also Coleworts, which now beare all the sway and none but they in Gardens, I do not find that the Greeks made any great account of them; & yet *Cato* highly extollet Coules, and reporteth great wonders of their vertues and properties, which I meane to relate in my treatise of Physick. For this present you shall vnderstand, that he putteth downe three

* *Olus*, which word *Pliny* vseth much for Beets.

* For some
resemblance
of Parsley.

three kinds of them: the first, that stretcheth out broad leaves at full, and carrieth a big stem; the second, with a crisped and frizled leafe, the which he calleth * Apiana: the third is smooth, plain, and tender in leafe, and hath but a little stalke; and these are of no reckoning at all with *Cato*. Moreouer, like as Coleworts may be cut at all times of the yeare for our vie, so may they be sown & set at the yere long: & yet the most appropriat season is after the Equinox in Autumn. Transplanted they be when they haue once gotten five leaues. The tender crops called Cymæ after the first cutting, they yeeld the Spring next following: now are these Cymæ nothing else but the yong delicate tops or daintier tendrils of the maine stem. And as pleasant and sweet as these crops were thought to other men, yet *Apicius* (that notable glutton) tooke a loathing of them; and by his example *Drusus Caesar* also careth not for them, but thought them a base and homely meat; for which nice and dainty tooth of his, he was well checked and shent by his father *Tiberius* the Emperour: after this first crop or head is gone, there grow out of the same colewort other fine collifories (if I may so say) or tendrils, in Summer, in the fall of the leafe; and after them, in winter: and then a second spring of the foresaid Cymæ or tops against the spring following, as the yeare before; so as there is no hearb in that regard, so fruitfull, untill in the end her owne fertility is her death; for in this manner of bearing she spends her heart, her selfe and all. There is a third top-spring also at mid-summer about the Sunstead, (which if the place bee any thing moist) affoordeth yong plants to be set in summer time; but in case it be ouer-drie, against Autumne. If there be want of moisture and skant of muck, the better taste Coleworts haue: if there be plenty and to spare of both, the more fruitfull and ranke they are. The onely muck & that which agreeth best with Coleworts or Cabbages, is Asses dung. I am content to stand the longer vpon this Garden-wort, because it is in so great request in the kitchin, and among our riotous gluttons. Would you haue speciall and principal Coleworts, both for sweet taste and also for great and faire cabbage? first and foremost, let the seed be sowne in a ground thoroughly digged more than once or twice, and wel manured; secondly, see you cut off the tender springs and yong stalkes that seem to put out far from the ground, or such as you perceiue mounting too ranke and ouer-high from the earth: thirdly, be sure to raise other mould in manner of a bank vp to them, so as there peep no more without the ground, than the very top: these kind of Coleworts be fitly called Tritiana for the threefold hand and trauell about them; but surely the gaine will pay double for all the cost and toile both. Many more kindes there be of them, to wit, that of Cumes, which beareth leaues spreading flat along the ground, and opening in the head. Those of Aricia, be for heighth no taller than they, but rather more in number than for substance thinner and smaller: this kind is taken for the best and most gainfull, because vnder euery main leafe in maner, it puts forth other yong tendrils or buds by themselves, which are good to be eaten. The Colewort Pompeianum (so called of the towne Pompeii) is taller than the rest, rising vp with a smal stem from the root; howbeit among the leaues it groweth to more thickenesse. These leaues branch out but here and there, and are in comparison of others narrower; howbeit much set by for their speciall tendernes, wherby they are soon foddren and dressed; and yet cold weather they cannot indure; whereas on the other side, the Coleworts of Bruzze or Calabria, like the best in winter, and be nourished with the hard season: leaues they haue exceeding great and large, but their stalks are but small; and as for taste, they be sharp and fower. The Sabellian Coles, what curled and ruffed leaues they carry, it is a wonder to see: so thick they are besides, that they rob the very stem of their nutriment, which thereby is the smaller: howbeit of al others they be reputed the sweetest. Long it is not since there came from out of the vale of Aricia (where sometimes there was a lake, and a tower standing vpon it, remaining yet at this day to be seene) a kind of Cabbage-cole, with a mightie great head and an infinite number of leaues, which gather and close round together, and these Coles we in Latin call *Lactucæ*, of the place from whence they come. Some Coleworts there be, which stretch out into a roundle; others againe extend in breadth, and be very full of fleshy brawns. None, cabbage, more than these, setting aside the Tritian Coleworts before named; that are known otherwises to bear a head a foot thick, and yet none put forth their Cymes or tender buds more than they. Moreouer, this would be noted, That howsoeuer all kinds of Coleworts eat much sweeter for being bitten with the frost, yet if there be not good heed taken in cutting off their head or tender crops and buds, so that the wound come not neere the heart and pith, (and namely, by cutting them aslope and byas in manner of a Goats foot) they will take much harme thereby.

Such

A Such as be referred to beare seed, ought not to be cut at all. They also are not without their grace and commendation, which neuer passe the bignesse of a green and ordinary plant, & such small coles are called *Halmiridia*, for that they grow not elsewhere but vpon the sea coasts: and because they wil keep greene, prouision is made of such for to serue in long voiaiges at sea: for so soon as they be cut vp, before they touch the ground, they be put vp into barrels where lately oile hath been, and those newly dried against the time, and stopped vp close that no aire at all may enter in, and therein be they preserved. Some there be, who in removing the yong plants, lay vnder their roots, Rick and Sea-weeds, or els bruised and powdered nitre, as much as a man may take vp with three fingers, imagining thereby that they will the sooner come to maturity. Others againe take the seed of Trifolie and Nitre stamped together, which they strew vpon the leaues for the same purpose. [And as for Nitre, it is of this nature, to make them look greene still although they were foddren;] or els they vse to boile them after *Apicius* his fashion, namely, to steep them wel in oile and salt mingled together, before they be set vpon the fire for to be foddren.

Moreouer, there is a way to graffe herbs also as well as trees, namely, by cutting off the yong fions that spring out of the stalk, and therein to inoculate as it were the seed of another plant, within the pith or marow thereof. This also may be practised vpon wild Cucumbers.ouer and besides, there is a kind of wild Woorsts growing in the fields, called *Lapsana*, much named and renowned by occasion of the sonets & carols chanted in the solemnitie of *Iulius Caesar* the Emperors triumph, and especially of the merry rimes and licentious broad jests tossed by his soldiers, who at euery second verse cast in his teeth, that in *Dyrhachium* they liued of nothing els but of those Woorsts: noting indeed by way of cauill and reproch, his niggardise in rewarding them so sleightly for their good seruice: now was this *Lapsana* a kind of wild Colewort, which they did eat of instead of the fine and dainty tendrils and buds of the garden Coles.

As touching Sperages, there is not an herb in the garden, whereof there is so great regard and care taken, as of them. Concerning their first original & beginning, I haue spoken at large in the treatise. Of the maner how to order the * wild of that kind, and to entertain them in our gardens: as also how *Cato* willed vs to sow and plant them in plots of Reeds and Canes. Now there is a middle sort of these Sperages, not so ciuill and gentle as the *Asparagi* of the garden, and yet more kind and mild than the *Corradæ* of the field: these grow euery where abroad euen vpon the mountains; and the champion countrey of high Almain is ouerspred and full of them: wherof there goes a pleasant speech and merry conceit of *Tiberius Caesar* the Emperour, namely, that there grew an herb in Almain very like to the garden Sperage: for as touching that which commeth vp of it selfe in *Nefis*, an Island of Campaine, it is thought the best simply of all others, without comparifon. The garden Sperages be planted from the knots bunching together within the ground, named *Spongia*, which easily may be replanted, for surely an hearb it is that carrieth a mighty head or cluster as it were of roots, and the same putteth forth spurs euery way from it of a great depth into the ground. They send out at first certaine greene spurts or buds peeping forth of the ground, which growing to a stem in proceffe of time rise sharpe in the top, and then are they chamfered & diuided into certaine musculous branches that spread abroad. This hearbe may be sowne also of seed. *Cato* tooke not more paines about any other hearbe, nor imploied greater diligence in the description thereof, than he did in it. It is the very last thing that he treateth of in his booke, whereby it may appeare, that the man came all vpon a sudden and newly to the knowledge of that hearbe, and the ordering of it. He giueth order, *imprimis*, That the plot wherein they are to sowne, be moist, fat, and well digged. *Item*, That they be set halfe a foot euery way afunder one from another, & in no wise the place troden down with ones foot, moreouer, that two or three seeds be put together in a hole, made before with a dibble directly by a line: for in those daies they set them onely of seed. *Item*, That this would be done about mid-March, which is the proper season therefore. *Item*, That they haue their fill of dung; That they be kept cleane with often weeding: but in any case, That great heed be taken in plucking vp the weeds, that the tender buds or croppes new knit and appearing aboue ground, be not knapt off. For the first yeare, hee would haue them in winter time to be couered with straw and litter, and so defended against the frost and cold weather: also during the spring ensuing, to be opened at the root, sarched and well weeded. In the third yeare, by his rule, they ought to be burned in the spring time; and the sooner that the ground is thus burned, the better.

D 2

will

will they come vp again and in greater plenty: which is the cause, that they like and prosper best in plots set with Canes and Reeds: for such desire to be burnt betimes in the yere. Moreover, he giueth another precept, that they must not be fared, nor haue the earth opened & laid hollow about them, before their buds or tops be about ground to be seen, for feare least in the fardling, the roots take harm thereby, either by rasing or thaking them vntill they be loose. From which time forward, if a man would gather any of the said buds or yong springs, for salad or other vse, they ought to be plucked and slipped from the root; for otherwise, if they be broken and knapt off in the mids, the root wil presently put forth many vnprofitable sprouts, which wil suck away all the heart and kill it in the end. Slue and pluck it you may in manner aforesaid, vntill it spinde and run to feed, which commonly beginneth to be ripe in the Spring, & then it must be set on fire, as is before said: and then once again, so soon as new buds and tendrons appeare about ground from the root, they must be fared, bared, and dunged afresh. Now after it hath grown in this manner nine yeres, so as by this time it is waxen old, the roots must be taken vp, and then replanted again in a piece of ground well digged and as thoroughly dunged. Then (I say) ought the smal roots called Spongix in Latine, to be set again, a foot distant one from another. Furthermore, *Cato* ordaineth expressly by name, That sheeps dung should be vfed for that purpose, because any other would breed store of weeds. And verily there was neuer knowne any other thing practised or assaid afterwards, to more gain and benefit about this Garden-herb, vnlesse it were this. That about the Ides or mids of February, some haue let the seeds of Sperage lie well foked in dung, and then sowed the same by heaps in little trenches or holes made for the purpose: after which, when the roots are wouen and knit one within another into a knot, the spurns shooting from them they plant after the Equinox in Autumne following, a foot asunder: by which means they wil continue bearing plenteously for ten yeres together. For to breed and maintaine these garden Sperages, there is no better soile than the gardens of Rauenna, from whence we haue the fairest of all other. As for the herb named in Latine *Corruda*, I haue written heretofore of it: and I vnderstand thereby, the wild Sperage, which the Greekes call *Omnium* and *Myacanthion*: howbeit there be, who giue it other names. Finally, I reade of certaine Sperages which will engender and grow of Rams hornes beaten or stamped, and then put into the ground.

A man would thinke that I had discoursed already of all such Garden herbes as were of any price and regard: but that there remaineth one thing yet behind, whereof the greatest gain of all other is raised, and yet me thinks I cannot write thereof, but be abashed to range it amongst the good herbes of the garden; and that forsooth is our Thistle: howbeit this is certaine (to the shame be it spoken of our wanton and wasting gluttons) that the Thistles about Carthage the great, & Corduba especially, cost vs ordinarily six thousand thousand Sesterces, to speak with in compasse. See how vaine and prodigal we be, to bring into our kitchin and serue vp at our table, the monstrousities of other nations, and cannot forbear so much as these Thistles, which the very asses and other fourfooted beasts, haue wit enough to auoid & refuse for pricking their lips and muzzles. Well, since they be grown into so great request, I must not ouer-passe the gardening to them belonging, and namely, how they be ordered two maner of waies, to wit, replanted of yong sets or roots in Autumne, and sowed of seed before the nones of March. As for the plants before said, they ought to be slipped from it, and set before the Ides or mids of Nouember in any hand; or els if the ground be cold, we must stay vntill February, and then be doing with them about the rising of the Western wind Fauonius. Manured ywis it ought to be & dunged, (I would not els) so faire and goodly an herbe it is, and so forsooth (and it please you) they prosper the better and come on trimly. They are condite also and preserued in vinegar (or else all were mard) in delicate life honey, seasoned also and bespiced (I may say to you) with the costly root of the plant Lafer-woort, yea and with Cumin; because wee would not be a day without Thistles, but haue them as an ordinary dish all the yere long.

As for the rest of Garden-herbs behind, they need no long discourse, but a light running ouer them may serue well enough. First and foremost men say, That the best sowing of Basil, is at the feast * Palilia: but some are of mind, that Autumne is as good: and they that would haue it done in winter, giue order to infuse and foke the seed first in vinegar. Rocket also and garden Cressies, are not dainty to grow, but be it winter or Summer, they will soon come vp & prosper at all times. But Rocket of the twain, stands more at defiance with winter, and scorns al his frow-

* It is meant
of bruchokes.

* At Cal-May,
that of Aprill.

A ning looks and cold weather; as being of a contrary nature to Lettuce, for it stirreth vp fleshy lust: and therefore commonly it is ioined with Lettuce in sallads, & both are eaten together; that the exceeding heat of the one mixt with the extreme coldness of the other, might make a good mariage and temperature. Cressies tooke the name in Latine * *Nasturtium*, a *narium tormentum*, as a man would say, Note-wring, because it will make one writh and shrink vp his nostrils: which is the reason, that the word is grown into a proverbe, when we would signifie a thing which will put life into one that is dull and vnusty. In Arabia, the Cressies (by report) proue to a wonderful bignesse. Rue also is sowed usually in February when the Western wind Fauonius bloweth, and soon after the Equinox in Autumne. It cannot away with winter, for it brooketh nor cold or rain, nor moist ground, neither will it abide muck: it liketh well to grow in dry places, and such as lie faire vpon the Sun-shine, but a clay ground which is good for bricke and tile, that is alone for it and best of all other: it delighteth in ashes, and therewith is it fed and nourished; inso much as they vse to blend ashes & the seed together, for to keep away the canker worm and such like. Certes we find, that in old time Rue was in some great account, and especial reckoning about other herbes: for I reade in antient Histories, That *Cornelius Cethegus*, at what time as he was chosen Consul with *Quintus Flaminius*, presently vpon the said election, gaue a largesse to the people of new wine aromatized with Rue. The fig-tree and Rue are in a great league & amitie; inso much as this herbe, sow and set it when and where you will, in no place prospereth better than vnder that tree: for planted it may be of a slip or sprig. Now if the same be put into a bean which hath a hole pierced or bored through, it will do far better, by reason that the bean clasping the set close, and vnting thereunto her own sap and moisture, cheriseth it therewith and makes it come apace: moreover, it will propagat and set it owne selfe, for let the top of any of her branches be bent downward, so as it may but touch the ground, it will presently take root. Of the same nature it is, that Basil, but that Rue is somewhat later ere it come vp, & groweth not so fast. When Rue is come to be of any strength, there is vntoward fardling and weeding of it; for if it be handled, it will raise blisters vpon a mans fingers, vnlesse the hands be well gloued, or defended with oile. The leaues also of Rue are kept and preserued, beeing made vp into little knitches or bunches.

Now as touching Ach or Parsley, the manner is to sow it immediatly after the spring Equinox in March, but the seed would be first brused & beaten a little in a mortar: for some are persuaded, that by this means it groweth thicker and more crispe or curled: which it will doe likewise, in case after a bed be sowed therewith, it be troden vpon with mens feet, or beaten downe with a roller or cylinder. This peculiar property hath Parsley, that it will change the colour. It was an antient custome in Achaia, to do honour vnto this hearbe, by crowning those that went away with victory and wan the prize in the solemne tourneys and sacred games Nemei, with a chaplet of Parsly. As for Mint, men vse to set it at the same time, of a yong plant, so soone as they see it is sprit and come vp: but if it haue not sprung, yet they let not to plant the spurns of the root, knotted into an head within the ground in manner of the Spongix in Sperage before said. This herb taketh no great ioy in moist grounds. All Summer it looketh greene and fresh, but in winter it hath a hempen hew. A wild kind there is of Mint, named in Latin *Mentastrium*, which will increase by propagation or couching in the ground, as well as vine branches, and so willing it is to take, that it makes no matter which end of a slip be set downward; for at the wrong end it will come as well as at the other. Mint in the Greeke tongue hath changed the old name, by occasion of the sweet * *smell* that it carrieth, whereas before time it was called *Mintha*, whereof we in Latine deriued our name *Mentha*. A pleasant herb this is, and delectable to smell vnto, inso much as you shal not see a husbandmans bound in the country, but all the meats from one end to the other be seasoned with mints. If it be once set or sown, & haue taken to a ground, it will continue there a long time. It resemblith much the herb Peni-roiall, the nature wherof (as I haue often shewed) is to blow her floures again (vpon the shortest day of the yere) euen as it hangeth prickt vpon flesh in the butchery. Much after one sort are kept and preserued for sauce (as if they were of the same kind) Mint, Peni-roiall, and Nep: but about all, to a wake and pecuill stomach, Cumin agreeth most and is the best to get an appetite. It hath a qualitie to grow with root very ch, and scarcely taketh any hold of the earth, coueting to be aloft. In hot grounds and such especially as be rotten & mellow, it would be sown in the mids of the spring. There is a second sort therof growing wild, which some call Cumin Rustick, others Thebaick,

* In Greeke also
is called
quia caput ten-
tar, because it
troubleth the
head with ex-
cessive heat:
vel vicius, dicitur
dignus, qui
cordator &
prudens facit
at: therefore
there went a
by-word or
proverbe in
Greeke, appli-
ed to a dull,
foolish, and
blockheaded
fellow, καπδα
παις: Go, eat
some Cressies,
learn more wit.

* *Minthum*,
i. odoriferous
or sweet-smel-
ting.

which being bruised or beaten into powder, and drunk in water, is singular good for the pain of the stomack. The best Cumin in our part of the world, which is Europe, commeth from Carpetania; for otherwise the greatest name goeth of that in Æthiopia and Africk. And yet some here be who prefer the Cumin of Egypt before all.

* A corrupt word from *O-lus atrum*: as if one would say, *Olystris*. Some take this for *Louach*.
* *Iuxta maceritiam*, whereupon some Apothecaries name it *Maceraria*.

But * Alifanders, which some Greekes call Hippofesilium, others Smyrneum, is of a strange and wonderfull nature above all other herbes: for it wil grow of the very liquor or juice issuing forth of the stalk. It may be set also of a root: and indeed, they that gather the foresaid juice, vse to say, that it hath the very tast and relish of Myrrhe: & by *Theophrastus* his saying, it came first of Myrrh set into the ground. The old writers ordained, that Alifanders should be set or sowed in stony grounds, without tending or looking to, neer to some * mud wall. But now in our daies it is planted in places digged & delued ouer, once or twice: yea, and at any time from the blowing of the western wind Fauonius in Februarie, vntill the later Æquinox in September be past.

Capers likewise are set & sowed in dry places specially: but the bed must be digged in some low ground and laid hollow, inuironed round about with banks, and those raised with a ground-fell of stone worke, otherwise it would be ranging abroad and ouerspread whole fields, & make the ground barren and vnfruitfull. It flourisheth in Summer, and continueth green vntill the occultation or setting of the Brood-hen star Virgilie; and sandy ground is most familiar and agreeable to it. Touching the defects and imperfections of that kinde which groweth beyond sea, I haue said enough among the shrubs and plants that be strangers.

The Caraway also is a stranger, as may appeare by the name of Caria, the native countrey therof; it beareth one of the principal feeds that commeth into the kitchen. It careth not much where it is sown or planted, for it will grow in any ground, as well as the Alifanders beforenamed: howbeit, the best commeth out of Caria, the next to it in goodnes, we haue from Phrygia.

As for Loueach or Linish, it is by nature wild and sauage, and loueth alone to grow of it self among the mountains of Liguria, whereof it commeth to haue the name Ligusticum, as being the naturall place best agreeing to the nature of it. Set or sowed it may be in any place wherefoeuer; howbeit, this that is thus ordred by mans hand hath not the like vertue as the other, although it be in tast more pleasant, & some call it Panax or Panace: howbeit, *Cretenas* a Greeke writer, calleth the wild Origan or Cunila Bubula, by that name. But all others in manner, attribute the name of Conyza or Conyzoides to Cunilago, *i. Fleabane Mullet*: and of Thymbra, *i. winter Sauory*, to Cunila, *i. garden Sauory*, which amongst vs hath another name in Latin, to wit, *K* Satureia, much vsed in sauces and seasoning of our meats.

This Sauory is commonly sown in the month of February, and hath no smal resemblance of Origan, inso much, as they are neuer both vsed at once in sauce or fallads, their vertues & operations be so like. And yet the Egyptian Origanum is preferred before the said Sauory.

To come now to Lepidium, *i. Dittander* or Pepperwort, it was sometime a stranger also with vs here in Italy. It is vsually sown after mid-February when the Western wind Fauonius hath plaied his part: afterwards when it hath put forth branches, it is cut downe close to the ground, and then it is laid bare and farled, & the superfluous roots cut away, & so in the end cherished with muck. Thus must it be serued the two first yerres. For afterwards they vse the same in branches at all times, if the cruell and bitter winter kill them not; for surely this herb is most impatient of cold. It groweth a good cubit in heighth, bearing leaues like to Lawrel; & the same soft and tender. But neuer is it vsed in meat without milke.

Now for Gith or Nigella Romana, as it is an herb that groweth for the pastrie, to fit the Bakers hand; so Annise and Dil are as appropriat to the kitchen for Cooks, as the Apothecaries shop for the Physician.

Sacopenium likewise is an herb growing verily in gardens, but is vsed in Physicke onely. Certain herbes there be that accompany others for good fellowship, and grow with them, as namely Poppy; for commonly sowne it is with Coleworts, Purcellane, Rocket, and Lectuce.

Of garden Poppies there be three kinds, first the white: whereof the * seeds in old time being made into Biskets or Comfits with hony, were serued vp as a banquetting dish. The rustical peasants of the countrey were wont to guild or glaze (as it were) the vppermost crust of their loaves of bread with yolks of eggs, and then to bestrew it with Poppy seed, which would cleaue fast to it, hauing first vnderlaid the bottome crust with Ammi, or Annise seed and Gith: & then they put them into the oven being thus seasoned; which gaue a commendable taste to their bread when

* This Turret or conceit was called *Coccyus* by Terentian and *Pisus*.

A when it was baked. There is a second kinde of Poppie called Blacke: out of the heads or bolles whereof, a white juice or liquor issueth by way of incision, like milk, and many receiue & reserue it carefully. The third kind, which the Greekes name * Rhœas, our countrey men in Latin call the wandring or wild Poppie. It commeth vp verily of the owne accord, but in corne fields among Barly especially, like vnto Rocket, a cubite high, with a red floure that soon wil shed and fall off, whereupon it tooke that name of Rhœas in Greeke. Touching other kinds of Poppie growing of themselves, I purpose to speake in the treatise of physicke and medicinable hearbs. Mean while this cannot be forgotten, that Poppies haue alwaies, time out of mind, been highly regarded and honoured among the Romanes; witnesse *Tarquine* the Proud, the last king of Rome, who when his sonnes Embassadors were come to him for to vnderstand his aduise, how to compasse the seignorie ouer the Gabians, drew them into his garden, and there by circumstance of topping the heads of the highest Poppies there growing, without any answere parole, dispatched them away, sufficiently furnished by this demonstration, with a double design, euen to fetch off the greatest mens heads of the citie, the readiest meanes to effect his purpose.

B Again, there is another sort of hearbs, that loue for companie to be set or sowne together about the Æquinox in Autumne, namely, Coriander, Dill, Orach, Mallowes, Garden dockes or Parience, Cheruill (which the Greeks call *Pæderos*) and Senuie, which is of a most biting and stinging tast, of a ferie effect, but nathelasse very good and wholsom for mans bodie: this hearb will come of it selfe without the hand of man, howbeit proue it will the better if the plant be remoued and set elswhere. And yet, sow a ground once withall, you shall hardly rid the place of it cleane: for the seed no sooner sheddeth vpon the ground, but a man shall see it greene above ground. It serues also to make a pretty dish of meat to be eaten, being boiled or stewed between two little dishes in some conuenient liquor, in such sort, as a man shal not feele it to bite at the tongues end, nor complaine of any cagernes that it hath. The leaues besides vse to be sodden like as other pot-herbes. Now there be of this Senuie, three kinds: the first beareth small and slender leaues, the second is leaved like Rapes or Turneps, the third resembleth Rocket. The best Mustard seed commeth out of Ægypt. The Athenians were wont to call it Napy, some Thlaspi, and others Saurion.

C To conclude, as touching the running wild Thyme, and Sifymbrium, *i. Horfe-mint* or Water-mint, most hils are replenished and tapissed as it were therewith: and especially in Thracia, where a man shall see a mighty quantity of wild Thyme branches, which the mountain waters or land fouds carrie away and bring it downe with their streame to riuers sides, and then folke plant them. Semblably, at Sicyon there grows great store, conueighed thither from the mountains neere adjoining; and lastly, at Athens, brought thither out of the hill Hymettus. In like manner also the foresaid water-mint commeth from the hils with a sudden dash of rain, and is replanted accordingly. It groweth rankest and prospereth best in the brinks and sides of pits or wells; also about fish-ponds and standing pooles.

CHAP. IX.

¶ Of Finkle or Fennell, and Hempe.

E It remaineth now among garden hearbes to speake of those that be of the Ferule kind, and namely of Fenell in particular, a hearb wherein Snakes and such serpents take exceeding great delight, as heretofore I haue declared: and which being dried, is singular good to commend many meats out of the kitchen into the hall.

There is a plant resembling it much, named Thapsia, whereof because I haue already written among other foraine herbes, I will proceed forward to Hemp, which is so profitable and good for to make cordage. This plant must be sowed of seed after the western wind Fauonius bloweth in Februarie. The thicker that it groweth, the slenderer and finer it is. When the seed therof is ripe, namely, after the Æquinox in Autumne, folke vse to rub it out and then drie it either in the Sunne, the wind, or smoke. But the stalke or stem of the Hemp it selfe, they pluck out of the ground after Vintage: and it is the husbandmans nightwork by candle light to pill and cleane it. The best Hempe commeth from Alabanda, especially for to make nets and toile; where be three kinds thereof. That part of the Hempe which is next to the rind or pilling, as also the inner part within is worst: the principal of it lieth in the midst, and called it is Mesa. Next to the

the Alabandian Hempe for goodnesse, is that of Mylasium. But if you goe to the talnesse, there is about Rofoa in the Sabines countrey, Hempe as high as trees.

As touching the 2 kinds of Ferula, I haue spoken of them in my discourse of forrain plants. the seed of Ferula or Fennell-geant, is counted good meat in Italie: for it is put vp in pots of earth well stopp'd, and will continue a whole yeare. And of 2 sorts is this preferred Compost, to wit, the stalks, and the Bunches whiles they be knit round and not broken & spread abroad. And as they call these knobs which they doe condite and keep, Corymbi; so that Ferula, which is suffered to rise vp in stem for to beare such heads, they teame Corymbias.

CHAP. X.

¶ The maladies incident to Garden hearbes, The remedies against Pismires, Canker-wormes, and Gnats.

THe hearbes of the garden be subject to diuerse accidents, and namely, diseases, as well as come and other fruits of the earth. For not onely Basill by age degenerats from the owne nature into wild creeping Thyme, but Sisymbrium also into Calamint. The seed of an old Cole-wort will bring forth Turneps; and contrariwise, sow the seed of an old Rape & Turnep you shall haue Coleworts come vp of it. Cumin, if it be not kept neat and trim with much cleansing, will begin to decay at one side of the stalk beneath, and dy. Now hath Cumin but one onely stalk, and a root bulbous in manner of an Onion, it groweth not but in a light and leane soile. Otherwise, the peculiar disease appropriat to Cumin, is a kind of skurf or scab. Also Basil, toward the rising of the Dog-star, waxeth wan and pale. And generally, there is not an hearb but will turne yellow, if a woman come neere vnto it whiles she hath her monthly sicknesse vpon her.

Moreouer, there be diuerse sorts of little beasts or vermine engendred in the garden among the good hearbs. And namely, vpon the Nauewes, you shall haue gnats or flies; in radish Roots cankerwormes, and other little grubs; likewise, in Lettuce and * beet leaues. And as for these Beetworts last named, you shall see them haunted with snails, as well naked as in shels. In Leeks moreouer or Porret there settle other speciall vermine that be noisome to them. Generally, but such are very soone caught by throwing vpon those hearbes a little dung, for it will they gather to shroud and hide themselves. Furthermore, *Sabinus Tyro* in his booke intituled * *Cepuricon* which he dedicated to *Mecenas*, writeth, That it is not good to touch with knife or hooke, Rue, Winter Sauerie, Mint, and Basill. The same Author also hath taught vs a remedy against Em-mets (that do not the least mischief to gardens, when they lie not to haue water at command) and that is this, to take sea mud or oose and ashes together, to temper a mortar of them both, and therewith to stop their holes. But the most forcible and effectual thing to kill them, is the hearb called Ruds or Turn-sol. Some are of opinion, that the onely meanes to chase these ants away, is, with water wherin the powder of a fenni-brick or halfe-baked tile is mingled. And particularly, for to preserve Nauewes, it is a singular medicine for them to haue Feni-greek sowed among, as also for Beets to do the like with Cich pease: for this deuise will drive away the Cankerworm. But say, that this practise was forgotten, & that the foresaid hearbs be already come vp, what remedie then? Mary, euen to seeth Wormwood and Houseleek (which the Latines call *Sedum*, the Greekes *Aiezoon*) and sprinkle the decoction or broth thereof among them. Now what manner of hearbe this Houseleek is, I haue shewed you already. It is a common speech, that if a man take the seed of Beets and other pot-hearbes, and wet them in the iuice of Houseleek, or otherwise called Sea-green, those hearbes shall be secured against all these hurtfull creatures whatsoever. And generally, no Cankerwormes shall do harme to any herbage in the garden, if a man pitch vpon the pales about a garden the bones of a Mares head; but he must be sure it was of a Mare, for a horse head will not serue. It is a common saying also, that if a riuier Crab or Craifish be hung vp in the mids of a garden, it is singular for that purpose. Some there be who make no more but touch those plants which they would preserve from the said vermin, only with twigs of the Dogge berie tree, and they hold them warished and safe ynough. Gnats keep a foule stir in gardens where water runneth through especially, and wherin there be some small trees growing; but these are soone chased away by burning a little Galbanum.

CHAP.

CHAP. XI.

¶ What garden seeds be stronger, which be weaker than others. Also what plants prosper better with salt water.

NOW as touching the change and alteration in seeds, occasioned by age and long keeping; some there be that are firme and fast, which hold their owne well, as namely, the seeds of Coriander, Beets, Leeks, garden Cresses, Sennie or Mustard seed, Rocket, Sauerie, and in one word, all such as be hot and bite at the tongues end. Contrariwise, of a weaker nature are the seeds of Orach, Basil, Gourds, and Cucumbers. Generally, all summer seeds last longer than winter: and the Chibbol seed least of any other will abide age. But take the strongest and hardiest that may be, you shall haue none good after foure yeares, I mean only for to sow. And yet I must needs say, that Sauerie seed will remain in force about that time. Radishes, Beets, Rue, and Sauerie find much good by being watered with salt water; for to these especially it is hol-some physick against many infirmities: and besides, it is thought to giue them a pleasant and commendable tast, yea, and it causeth them to be more fruitfull. As for all other hearbes, they find benefit rather by fresh water. And since we are light vpon the mention of waters, those are thought best for this purpose which are coldest and sweetest to be drunk. Standing waters out of some pond, such also as are conueyed into gardens by trenches and gutters, are not good for a garden, because they bring in with them the seeds of many a weed. But about all other, raine waters coming in white shoures from heauen, be they that nourish a garden best, for these shoures kill the vermin also which are breeding therein.

CHAP. XII.

¶ The manner of watering Gardens. What Herbs will proue the better by removing and replanting. Of the iuices and saours that garden Herbes afford.

THe best time of the day to water gardens is morning & euening, to the end that the water should not be ouerheat with the Sunne. Basill only would be watered also at noon. And moreouer some think, that when it is new sown, it will make hast to come vp very speedily, if it be sprinkled at the first with hot water. Generally, all herbs proue better, and grow to be greater, when they be transplanted, but principally Leeks and Nauews: nay this removing and replanting of them is the proper cure of many sorances, for from that time forward, subiect they will not be to those iniuries that vse to infect them; and namely Chibbols, Porret, or Leeks, Radish, Parsly, Lettuce, Rapes or Turneps, and Cucumbers. All herbs which by nature grow wild, lightly haue smaller leaues and slenderer stalks, in tast also they be more biting and eage, than such of that kinde as grow in gardens: as wee may see in Sauerie, Origan, and Rue. Howbeit, of all others the wild Dock is better than the garden Sorrell, which the Latines call *Rumex*. This garden Sorrell or soure docke is the stoutest and hardiest of all that grow: for if the seed haue once taken in a place, it will by folks saying continue euer there: neither can it be killed, do what you will to the earth, especially if it grow neere the water side. If it be vsed with meats, vnlesse it be taken with Ptsane, or husked Barly alone, it giueth a more pleasant & commendable tast thereto, and besides maketh it lighter of digestion. The wild Dock or Sorrell is good in many medicines. But that you may know how diligent and curious men haue been to search into the secrets of euery thing, I will tell you what I haue found contriued in certaine verses of a Poet: namely, That if a man take the round treddles of a goat, and make in euery one of them a little hole, putting therein the seed either of Leeks, Rocket, Lettuce, Parsly, Endiue, or garden Cresses, and close them vp, and so put them into the ground, it is wonderfull how they will prosper, and what faire plants will come thereof.ouer and besides, this would be noted, that all herbs wild, be drier and more keen than the tame of the same kind. For this place requireth, that I should set downe the difference also of their iuice and tastes which they yeeld, and rather indeed than of Apples and such like fruits of trees. The tast or snack of Sauerie, Origan, Cresses, and Sennie, is hot and biting: of Wormwood and Centaurie, bitter: of Cucum-ber, Gourds, and Lettuce, waterish. Of Majoram it is sharp only: but of Parsly, Dill, and Fennell,

* For some
Philosophers
held opinion,
That the taste
of herbs con-
sisted of a Ter-
rene substance
and a Waretic
mixed toge-
ther: others (as
Democritus)
ascribed it to
their formes
and figures:
which Plinie
thinketh ridi-
culous.

well, sharpe, and yet odorant withall. Of all smacks, the salt taste only is not naturall. And yet otherwhiles a kinde of salt setteth like dust, or in manner of roundles or circles of water upon herbs: howbeit soon it passeth away, and continueth no longer than many such vanities * and foolish opinions in this world. As for Panax, it tasteth much like pepper: but Siliquastrum or Indish Pepper more than it, and therefore no marvel if it were called Piperitis. Libanotis smelleth like Frankincense: Myrrhis of Myrrh. As touching Panace, sufficient hath been spoken already. Libanotis commeth naturally of seed in rotten grounds, lean & subiect to dew: it hath a root like to Alifanders, differing little or nothing in smell from Frankincense. The use of it after it be one yeare old is most wholesome for the stomacke. Some terme it by another name, Rosemary. Also Alifanders, named in Greeke Smyrneum, loveth to grow in the same places that Rosemary doth, and the root resembleth Myrrh in taste. Indish Pepper likewise delighteth to be sowed in the same maner. The rest differ from others both in smell and taste, as Dil. Finally, so great is the diversitie and force in things, that not only one changeth the naturall taste of another, but also drowneth it altogether. With Parsly the Cooks know how to take away the fourenesse and bitteresse in many meats: with the same also our Vintners haue a cast for to rid wine of the strong smell that is offensiu, but they let it hang in certain bags within the vessels.

Thus much may serue concerning garden herbs, such I mean onely as be used in the kitchen about meats. It remaineth now to speake of the chiefe work of Nature contained in them: for all this while we haue discoursed of their increase, and the gain that may come thereof: and indeed treated we haue summarily of some plants and in generall termes. But forasmuch as the true vertues and properties of each herb cannot thoroughly and perfectly be known, but by their operations in physick, I must needs conclude, that therein lieth a mighty piece of work, to find out that secret and diuine power, lying hidden and inclosed within: and such a piece of worke, as I wot not whether there can be found any greater. For mine own part, good reason I had, not to set down and annex these medicinable vertues to every herb, which were to mingle Agriculture with Physick, and Physicke with Cookerie, and so to make a mish-mash and confusion of all things. For this I wist full well, that some men were desirous only to know what effects they had in curing maladies, as a study pertinent to their profession; who no doubt should haue lost a great deale of time before they had come to that which they looked for in running thorough the discourses of both the other, in case wee had handled altogether. But now, seeing every thing is digested & ranged in their seuerall ranks, as well pertaining to the fields, as the kitchen, and the Apothecaries shop; an easie matter it will be for them that are willing and so disposed, to sort out each thing, and fit himselfe to his owne purpose, yea, and ioine them all at his pleasure. *And that thing neede*



THE

A



THE TWENTIETH BOOKE
OF THE HISTORIE OF NATURE,
WRITTEN BY C. PLINIUS
SECVNDVS.

The Proeme.

SINCE we are come thus far, as to treat of the greatest and principall work of Nature, we will begin from hence forward at the very meats which men put into their mouths, and conuoy into their stomacks, and urge them to confesse a truth, That hitherto they haue not well knowne those ordinary means whereby they liue. And let no man in the mean time thinke this to be a simple or small piece of knowledge and learning, going by the base title & bare name that it carries; for so he may be soon deceived. For in the pursute and discourse of this argument we shall take occasion to enter into a large field as touching the peace and war in Nature; we shall handle (I say) a deep secret, even the naturall hatred and enmitie of dumbe, deafe, and senselesse creatures. And verily, the main point of this theme, and which may rauish vs to a greater wonder & admiration of the thing, lieth herein, That this mutual affection, which the Greeks call *sympathie*, whereupon the frame of this world dependeth, and whereby the course of all things doth stand, tendereth to the use and benefit of man alone. For to what end else is it, that the element of Water quencheth fire? For what purpose doth the Sun suck and drink up the water, as it were to coole his heat and allay his thirst? and the Moon contrariwise breed humors, and engender moist vapors? and both Planets eclipse and abridge the light one of the other? But to leaue the heauen and those celestall Bodies in their maiestie. What is the cause, that as the Magnet or loadstone draweth iron vnto it, so there is another stone abhorreth the same, and driueth iron from it? What should the reason be of the Diamond, that peerlesse stone, the chiefe iewel wherein our rich worldlings repose their greaest ioy and delight, a stone otherwise * inuincible, and which no force and violence besides can conquer, but that it remaineth still infrangible; and yet that the simple blood of a poore Goat is able to burst it in pieces? Besides many other secrets in nature, as strange, yea and more miraculous. All which we purpose to referre vnto their seuerall places, and will speake of them in order. Mean while may it please the Reader to pardon vs, and to take in good part the manner of our entrance into this matter: for albeit we shall deale in the beginning with the smallest and basest things of all others, yet such they be as are wholesome, and concerne much the health of man and the maintenance of his life. And first will we set in hand with the garden, and the herbes that wee finde here.

* Theamodes,
cap. 16. lib. 36.

* Whereupon
it is called *Adama*.

CHAP. I.

¶ Of the wilde Cucumber, and the iuice thereof, *Elaterium*.

THIS wilde Cucumber, as we haue said heretofore, is far lesse than that of the Garden. Out of the * fruit hereof there is a medicinable iuice drawne, which the Physitians call *Elaterium*. For to get this iuice, men must not stay vntill the * Cucumber be fully ripe: for vnles it be taken betimes and cut down the sooner, it will leap & flur in the handling from the stele whereto it hangeth, against their faces, with no smal danger of their eye-sight. Now when it is once gathered, they keepe it so one whole night. The next morrow they make an incision and slit it with the edge of a cane. They vse to strew ashes also thereupon, to restrain and keep down the liquor which

* Semen pro
fructu abusu.

* Whereupon
it is called
Touch me not.

which issueth forth in such abundance: which done, they presse the said juice forth, and receiue it in raine water, wherein it fettleth: and afterwards, when it is dried in the Sunne, they make it vp into Trochisques. And certaine these Trochisques are soueraigne for many purposes, to the great good and benefit of mankind: For first and foremost, it cureth the dimnesse and other defects or imperfections of the eyes: it healeth also the vlcers of the eye lids. It is said moreover, that if a man rub neuer so little of this juice vpon vine roots, there will no birds come neere to pecke or once touch the grapes that shall hang thereon.

The root of this wild Cucumber, if it be boiled in vinegre and made into a liniment, and so applied, is singular good for all kinds of gout; but the juice of the said root helpeth the tooth-ach. The root being dried and incorporat with rosin, cureth the ringworme, tetter, & wild scab or skurf, which some call Psora and Lichen: it discuffeth and healeth the swelling kernels behind the eare; the angrie pushes also and biles in other Emunctories called Pania and reduceth the stools or skars left after any sore, and other skarres, to their fresh and natue colour againe. The juice of the leaues dopped with vinegre into the ears, is a remedie for deafenesse. As for the liquor concrete of this cucumber, named elaterium, the right season of making it, is in autumnne: neither is there a drug that the Apothecaries hath, which lasteth longer than it doth: howbeit, before it be three yeres old, it begins not to be in force for any purpose that a man shall vse it: and yet if one would occupie it fresh and new before that time, he must correct the foresaid Trosch'es with vinegre, dissolving them therein ouer a soft fire, in a new earthen pot neuer occupied before: but the elder they be, the better and more effectually they are; inasmuch as (by the report of *Theophrastus*) Elaterium hath bin kept and continued good 200 yeres. And for fiftie yeres, it is so strong & full of vertue, that it wil put out the light of a candle or lamp: for this is the triall and prooue of good Elaterium, it being set neer thereto, before that it puts out the light, it cause the candle to sparkle vpward and downward. That which is pale of color and smooth, is better than that which is of a greenish grasse color, & rough in hand; the same also is somewhat bitter withall. Moreover, it is said, that if a woman desire to haue children, & do cary about her the fruit of this wild Cucumber fast tied to her bodie, she shall the sooner conceiue and proue with child; provided alwaies that in the gathering, the said Cucumber touched not the ground in any case. Also if it be lapped within the wooll of a Ram, & be bound to the loins of a woman in trauell of childbirth, so that she be not her selfware therof, she shall haue the better speed and easier deliuerance: but then, so soon as the infant & the mother be parted, the said Cucumber must be had out of the house in all hast, where the woman lyeth. Those writers who magnifie these wild Cucumbers, and set great store by them, affirm, That the best kind of them groweth in Arabia; and the next about Cyrenæ: but others say, That the principall be in Arcadia; That the plant resembleth Turnsol; That betwene the leaues and branches thereof there groweth the fruit, as big as a Wallnut, with a white taile turning vp backward in manner of a Scorpions taile: whereupon some there bee, who giue it the name of the Scorpion Cucumber. True it is indeed, that as wel the fruit it selfe as the juice therof called Elaterium be most effectually against the pricke or sting of the Scorpion, as also that it is a medicine purgatiue of the bellie, but especially cleanseth the wombe or matrice of women. The ordinarie dose is from half an Obulus to a Solid^z, an obole or half a scruple according to the strength of the patient. A greater receit than one Obulus, killeth him or her that taketh it: but being taken within that quantitie aboue named, in some broth or conuenient liquor, it is passing good for the dropcie, yea, and to euacuat those filthie humors that engender the lowlie diseaf. Being tempered with honey and old oile, and so reduced into a thin ointment or liniment, it cureth the Squinancie, and such diseases incident to the windpipes.

CHAP. II.

¶ Of the Serpentine Cucumber, called otherwise the Wandering Cucumber: also of the Garden Cucumbers, Melons or Pompions.

Many there be of opinion, that the Serpentine Cucumber among vs, which others call the wandring Cucumber, is the same that the former Cucumber which yeeldeth Elaterium. The decoction whereof is of that vertue, that whatsoeuer is besprinkled therewith, no myce wil come neer to touch it. The same being foddren in vinegre and brought to the consistence

A consistence of an ointment, is a present remedie to allay the pains of gout, as wel in feet, hands, knees and armes, as in any other joint whatsoever. Also, if the seed thereof, or the fruit alone, dried in the Sun and beaten to powder, be drunke to the weight of 30 deniers (Romane) in one hemine or wine pint of water, it assuageth the pain of the reines and the loins. Tempered with womans milke, it resolueth all sodain tumors & swellings, being applied to the grieved place. But to come againe to Elaterium, it mundifieth the matrice and naturall parts of women; but if they be with child, they must take heed how they meddle with it, for it bringeth them to a shift, yea and haſteth abortiue or vntimely birth. Good it is for al them that be short winded. As for the yellow jaundise, it cureth it, if it be but snuffed vp into the nose. Anoint or bath the face with it in the Sun, it taketh away pimples & other spots there. Many attribute al the same properties and effects to the Garden cucumbers: And in very deed, this fruit would not be despised, in regard of the use thereof in Physicke: for first and foremost, Take Cucumber seeds as many as three fingers will receiue, stampe them with Cumin, and giue the powder in wine to them that haue the cough, for to drinke, you shall see present helpe. The same seeds taken in powder with breast-milke, cureth those that be lunaticke and phranticke. Also, the weight of one * Acetabulum, [i. much about two ounces] cureth them that haue the Dyſentery or bloudy flux. Moreover, being taken with a like poise or quantity of Cumin seed in mead or honied water, it is singular good for them that reach vp filthy matter from their lungs; as also for those who haue * weake and diseafed liuers. If one drinke the same with some sweet wine, it prouokes vrine: and being injected by a Clyſtre together with Cumin, it easeth the paine in the kidnies and reines.

C As for the fruit called Pompions or Melons, being eaten as meat, they cool the body mightily and make it soluble. The fleshy substance of them applied to the eies, assuageth their pain and restraineth their waterish and rheumatick flux. Their root healeth the * wens or vlcers gathered in manner of honny-combs: which swellings some call Cerio. Being dried, it staierh vomits, so it be brought into powder and giuen to the weight of * foure Oboli in honied water: but the Patient when he hath drunke it, must walke presently vp on it half a mile. The same powder is deterſiue and scouring, and therefore put into sope and washing-balls. As for the rind or barke thereof, it procureth vomit indeed, but it cleanseth the skin as wel as the other. The same doe the leaues of any domesticall or garden Cucumbers or Melons, if they be made into a liniment. The said leaues also stamped with honey and brought to the forme of a cataplasme, cure the bloody-fals or night-blains, but tempered with wine, they heale the bitings of dogs, as also, of the Millepede, which the Greeks call Seps, a long worm with hairy feet, doing much harme to cattaille especially; for look where it biteth, the place presently swelleth and putrifieth. The very Cucumber it selfe is of a comfortable odor, and recouereth the faintings of the heart, and those that swoone. Finally, if you would make a delicate sallad of Cucumbers, boile them first then pill from them their rind, serue them vp with oile, vinegre, and honey: certain it is, they are by this meanes far sweeter and pleasanter than otherwise.

CHAP. III.

¶ Of the wild Gourd, and the Rape or Turnep,

There is a kind of wild * Gourd which the Greeks call Somphos, as one would say, hollow and emptie (for thereupon it tooke that name) a finger thicke, growing nowhere else but among rocks and stony grounds. If a man chew this Gourd and suck out the juice thereof he shall find it very comfortable to the stomach. There is another wild gourd called Colocynthis, but that is full within, and lesse than that of the Garden. The pale of this kind is the better, for such be vsed in Physicke: and yet that of grasse greene colour when it is dried, if it be taken alone, doth purge & euacuat the belly. Also being infused into the bodie by way of clyſtre, it cureth all diseases of the guts, flaukes, reines, and loines: it helpeth the palsie likewise, or the resolution of the sinews. After the seeds be taken forth, some fill the place with honied water, & so seeth all together, until halfe be consumed, and giue of this decoction the quantitie of foure Oboli, with good successe to those that be troubled with a cough: the powder thereof dryed & incorporat with foddren honny & so reduced into pills and swallowed, is good for the stomach: the seeds be singular to cure the Jaundise; but the party must drinke honied water presently after it.

E

The

Obolus
i. halitea
Scruple or
Scruple.

* Phrenitis: &
some read Ne-
phritis, and
then it signi-
fies those that
haue the stone
or pains of the
kidnies.
* 15. drams.
* Lucinerosi.

* Melicoides.

* two scruples.

* This is not
Colocynthis.

The fleshie pulpe within mixed with wormwood and honey, takes away the tooth-ach & a col-
 lution made with the juice thereof and vinegre hot, confirmeth and fasteneth the teeth that be
 loofe in the head. Moreouer, if with it and oile together, one rub the backe bone, the loines and
 the haunches or huckle, it will immediatly rid them of their pain and ach. But I will tell you a
 strange and wonderfull effect indeed: If a man take their seeds of * euen number & hang them
 either about the necke or armes of them that haue the ague, they will driue the accesse or fit a-
 way, be it any of those intermitten feuers which the Greekes call Periodicall. Thus much for
 the wild Gourd, Colocynthis.

* It may be, he
 meaneth a nu-
 ber respectiue
 to the type of
 the ague, that
 is to say, 3 in a
 tertian, 4 in a
 quartan, 5 in a
 quintan, &c.

As for the domesticall Gourd of the Garden, after it is scraped and pilled, take the juice
 thereof, and distill it warme into the eares, it will ease the paine. The inner flesh or pulp clean-
 sed from the seed, is passing good for to be applied to the agnels or corns of the feet: also to be
 laid vnto those impostumes or swellings, that grow to an head or suppuration [which the
 Greeks call Apostemata.] The liquor or decoction of the Gourd, sodden al whole as it is, with
 rind, seed, and pulpe, doth strengthen the loose teeth, and stinteth their ach. Wine wherein it is
 boiled, is a singular decoction to bath the eies, for to represseth and stay the fluxe or theume that
 falleth vpon them. The leaues of it, together with the fresh leaues of the Cypresse tree newly
 gathered, being stamped and applied to wounds, be excellent to heal them. The Gourd it selfe
 enclosed within clay, and so baked or roasted vnder the embers, and then stamped and incorpo-
 rate with goose greafe, hath the like effect. Moreouer, the scrapings or shauings of the rind,
 mightily cooleth the heat of the gout, if it be not inueterat and old: the heats also of the head
 and especially the * burning therein, which troubleth little infants. The said parings being in-
 corporat with the filth rubbed or curried from mens bodies in baines & stoues after they haue
 swet, and so laid vpon any part that hath S *Antbonies* fire, allaieth the heat and bringeth the
 place into temper: so doe the seeds also, vsed in like manner. The juice or liquor drawne out of
 the said parings, being mingled with oile of roses and vinegre, and then made into a liniment,
 doth mitigate the extreme heat of burning feauers. The ashes of Gourd parings burnt & stre-
 wed drie vpon any part of the bodie that is burnt or skalded, healeth them wonderfully. C *hyr-*
sippus the Physician condemned Gourds, and forbad men to eat of them. Howbeit, all Physici-
 ans doe resolutely agree in this, That they be passing good for the stomacke: as also for the ex-
 ulcerations of the guts and bladder.

As for Rapes or Turneps, they likewise are medicinable, and haue their vse in Physick, for to
 begin withall, if one lay them very hot to kibe or humbled heeles, they wil cure them. Also, if
 the feet be frozen and benumbed with cold, lay them thereto sodden in water, and this fomen-
 tation will restore them to their former heat. The hot decoction or broth of Rapes, is passing
 good for to bath the goutie members, yea if it were a cold gout. The Rape or Turnep root, raw
 as it grew, brayed in a mortar with salt, is a remedie for all diseases of the feet, bee they cornes,
 kibes, bloody falls, swellings of cold, or any other infirmities whatsoever. Rape seed bruised to
 a liniment drunken also with wine, is reported to be a foueraign medicine against the stinging
 of serpents, and any other poison: Howbeit many think, that it is a preferuatiue & countrepoi-
 son, when it is taken in wine and oile. *Democritus* banished turneps altogether from the board,
 by reason of the ventosities or windiness that it engender. But *Diocles* on the other side extol-
 led and praised them as much; and affirmeth, That they will pricke forward to *Venus*. The like
 doth *Dionysius* report of them, and the rather (saith he) if they be condite with *Rocket*. He wri-
 teth moreouer, That if they be roasted or baked vnder the ashes, and so incorporate with greafe,
 will make a notable good cataplasme for the gout and joynt-ach. The wild rape or turnep grow-
 eth commonly euery where among corne fields: it brancheth much, carieth a white seed, twife
 as big as that of the Poppie. This being incorporat with wine of equall quantity, is much vsed
 to take away riuils, and so smooth the skin both of the face and also of the whole body besides.
 To conclude, the roots of Eruele, Barley, Wheat, and Lupines, be good for nothing at all.

CHAP. III.

¶ The diuers sorts of Nauews: of the wild Radish: of the Garden Radish,
 and the Parsnep.

The Greek writers obserue two kinds of Nauews, which serue for Physick. The first ariseth
 up with * a conered and edged stalk, beareth leaues resembling Parsely, and putteth out
 floures

* Angustis
 caulis sin-
 ay floures.
 30. 40. 50.
 100.

A floures like Dil: this they call Bunion: the decoction whereof being drunken with honied wa-
 ter, or with a dram weight of the owne iuyce, is counted foueraigne for the purgations that fol-
 low women for the defects of the bladder and vrine. The seed parched and beaten to pouder, and
 so taken in a draught of hot water, to the quantitie of foure * cyathes, cureth the bloudy flux:
 but it stoppeth vrine, vnlesse the patient drink Linefeed withall. The second kind is named Bun-
 nias, and resembleth both Rape and Radish: the seed of it is excellent good against poyson;
 and therefore in antidotes and preferuatiues it is much vsed. That there be Radishes wilde, we
 haue shewed heretofore. The most commended aboute all others is that which groweth in Ar-
 cadia: although there are of them in other countries, and those counted better, only for to pro-
 uoke vrine. Otherwise they purge choler, and namely their rindes infused in wine do the same.
 B Now ouer and besides their vertues and properties related heretofore, they discharge and cleanse
 the stomack, cut and extenuate flegme, and withall be diureticall and procure vrine.

* a Cyathis
 ten drams.

There is a kind of garden Radish in Italy which they name Armoracia, vsed also in physick:
 the decoction whereof if a man take a draught of it in the morning, to the quantitie of a cyath,
 doth fret, break, and expell the stone by way of grauell. Boile the same in water and Vinegre,
 therewith bathe or anoint the place stung with any serpent, and it will heale it vp. Radish taken
 with hony in a morning next ones heart tasting, is good for the cough. The seed parched, and
 so chewed alone without any thing els, asswageth the pain of the smal guts, * in the flanks and

Laganoponon.

C hypocondriall parts. The decoction of Radish leaues sodden in water and so drunk, or the very
 iuyce of the root it selfe as much as two cyathes, is thought to be a singular medicine against
 the breeding of body-lice. Radishes stamped in a mortar, and brought into the forme of a lini-
 ment, are thought to be excellent good for hot inflammations: the rind also stamped together
 with hony, and laid to any bruised place that looketh black and blew after a fresh stripe, dissol-
 neth that cluttered bloud, and reduceth the former color. The chewing of the quickest & most
 biting Radishes keeps them awake that are giuen to ouermuch drowsinesse, & inclined to the
 lethargie. The seed parched and afterwards stamped and incorporate with hony, cureth them
 that take their wind short. The same is also held for a countrepoyson. A defensatiue also the
 Radish is against scorpions, and resisteth their poisoned sting: for let a man rub his hands well
 either with the iuyce of the root, or the seeds, he may handle scorpions safely. Do but lay a Ra-
 dish vpon a scorpion he will presently die. Moreouer, *Nicander* affirms, that Radishes be passing

D good for them that haue eaten either venomous Mushromes or Henbane. The two *Apollodores*
 prescribe Radish to be giuen to them who suspect themselves to be poysoned with the viscus
 gum of the white Chamæleon root called Ixias; but taken diuersly; for the one of them sur-
 named *Citius*, giueth the seed stamped, and so to drink it in water: the other *Apollodorus*, of Ta-
 rentum, ordains the iuyce of Radish for this effect and purpose. Moreouer, radishes are thought
 good to diminish and extenuate the swelling spleen: they are wholsome for the liuer, & mitigate
 the pain of the loins. Being taken with Vineger and Senny, they helpe them that are in a drop-
 sic, or falne into a lethargie. *Praxagoras* is of iudgement, That Radishes should be giuen for to
 eat, to them that are troubled with the black passion, to wit, the paine and ringing of the small
 guts. And *Plistonius* appointeth them to be eaten of those that be troubled with a continuall
 E flux, by reason of a feeble stomack, called thereupon *Coeliaci*. They heale the Dysenterie or
 exulceration of the guts: they euacuate also and rid away the filthy matter and corruption of
 impostumes gathered about the midriffe and principal parts, if they be eaten with hony. But
 some for this purpose would haue them luted or bedawbed with clay, and so roasted or bake them
 afterwards vnder the ashes; and being thus prepared, they are effectually to bring down womens
 termes. Being taken with vinegre and hony in maner of an oxymel, they chase worms out of the
 guts and belly. If they be sodden to the thirds, and their decoction giuen to drink with wine,
 they do much good to them who haue a rupture, and their guts fallen downe into the burse of
 their cods: and in this wise they rid and scour away the cluttered & offensiue bloud gathered
 in the guts and sent thither from any other part. *Medius* the physitian prescribeth them to be
 boiled and giuen to the same purpose; as also to those that spit and reach vp bloud: yea and to
 women in childbed newly laid; for to increafe their milk. *Hippocrates* counselleth women whose
 haire is giuen to shed much, for to rub their heads with radish roots: also to apply them bruised
 in manner of a cataplasme vnto the nauill, when they be tormented with the paines of the ma-
 trice. They will bring to the natie & liuely colour the parts that are cicatrized or newly skar-

* It costs, Her-
 mol, somerעד
 110/12, & them
 it significeth
 Purlicke.

red. The seed bruised and tempered with water, and so laid as a cataplasme, stayeth the running of cancerous or eating vlcers, which the Greekes call Phagedæne. *Democritus* is of opinion, That much feeding vpon Radishes, stirreth vp lust and maketh folk amorous; which peradventure is the reason, that some haue thought they be hurtfull to the voice. The leaues of those radishes onely that haue the longer roots, are said to quicken the eye-sight; but if a man perceiue that he hath either inwardly taken for a medicine, or applied outwardly, a radish root which is ouer strong, he must presently haue Hyslope giuen him: for this Antipathy and natural contrariety there is betweene these two hearbs, That the one correcteth the other. For them that be hard of hearing, Physicians vse to intill the iuice of the Radish by drop-meale into the eares. And for them that would perbreake or vomit, the best way to take it, is at the end of a meale with the last meat.

* *Summo cibo*, although *Diocorides* saith *primo ciborum* and himselfe in the former booke *teiniis*.

As touching Hibiscum, like it is to the Parsnep: some call it Moloche Agria, others Pistolochia: it cureth the sores and vlcers that be in gristles, and knitteth broken bones. The leaues thereof drunke with water, loosen the belly, and chase away Serpents. Applied in a liniment or otherwise rubbed vpon a place stung with Bee, Waspe, or Horner, they are a present remedie. The roots thereof digged out of the ground before Sun-rising, & enfolded or wrapped in wooll as it grew vpon the sheepes backe, without any other artificiall colour, and namely of an ewe, which hath yeaned likewise an ewe lambe, is thought to be a singular thing for to be bound vnto the swelling kernels called the Kings euill, yea although they were exulcerat and ran. But some are of this mind, That for to doe this deed, it should be gotten vp with an instrument of gold; and great heed should be taken, that after it is once vp, it touch not the earth againe. Finally, *Celsus* giueth counsell, to lay the root thereof sodden in wine to the gouty joynts that are without tumor and shew no swelling.

CHAP. V.

¶ Of *Staphilinus*, or the Parsnep. Of Cheruill, the Skirwort: of *Seseli*, *Elecampane*, and Onions.

There is a second kind of Parsnep, named *Staphylinus*, which commonly men call the Wandring Parsnep. The seed bruised and drunke in wine, is singular good for them that haue swolne bellies, the rising or suffocation of the mother in women, with the torments and pains thereto incident, it cureth, in so much as it reduceth the matrice into the right place: being applied also as a liniment with wine cuit, it helps the wrings and throwes of their belly. It is not amisse also for men to take it, for the seed being stamped together with bread crumbs, of each a like portion, and so drunk with wine, cures the belly-ach with them also. It prouoketh vrine: and being applied fresh and new with honey, it represseth the spreading of fretting and running vlcers. The powder thereof also being drie and strewed thereupon, hath the like effect. *Diocles* aduiseeth to giue the root thereof in honied water, against the infirmities of liuer, spleene, flankes, small guts, loines, and reines. *Cleophrastus* saith, that it wil helpe (in that manner taken) an old bloudie flux, which hath continued a long time. *Philistio* boileth the root in milke, and giueth 4 ounces thereof to them who are troubled with the strangury, or pisse by drop-meale: but with water, he giueth it for the dropisie, to those also that with a cricke or cramp haue their necks drawne backward, for the pleurisie, and epilepsie or falling sicknes. Moreover, it is commonly said, that whosoever hath this root about them, are safe enough for being stung with any Serpent: may if they doe but tast thereof before-hand, they shal take no harme if they be either bitten or stung by them: and say they be already stung, let them apply it to the wounded place with hogs grease; and it will heale it vp. The leaues chewed help the indigestion & cruditie of the stomacke. *Orpheus* said moreover, That this root had an amorous propertie to win loue, haply because much feeding therof (as it is well knowne) doth sollicit vnto the game of loue, and maketh folke amorous: which is the reason also that some haue put down in writing, That it will helpe women to conceiue. As for the Garden Parsneps they are in many other respects of great force and very powerfull; but the wild is more effectiual, and principally that which groweth in stonie grounds. The seed of the Garden Parsnep also, being drunke in wine, or vinegre and wine together, saueeth those that are stung with Scorpions. If a man pick his teeth and rub them all about with a Parsnep root, he shall be eased of his tooth-ach.

The

A The Syrians are great Gardeners, they take exceeding paines and be most curious in gardening, whereupon arose the Prouerbe in Greeke, to this effect, *Many Worts and Pot-herbes in Syria*. They vse to plant in their gardens a certaine hearb very like to a Parsnep, which some call *Ginidium*, & Tooth-picke Cheruill: more slender and smaller it is only, and therewith bitterer in tast, but it worketh the like effects. They vse to eat it both sodden and raw, and find it agree well with the stomacke: for it drieth vp all the superfluous humours and excrements which be bedded and deeply rooted within it.

As for the wild Skirwort that grows wandering euery where, it is like both in shape and operation to those of the garden. It stirreth vp the appetite and skoureth the stomack of those crudities which caused dullnesse therein, and loathing to meat. *Opion* is verily perswaded, that if one eat it with vinegre aromatized with *Laserpitium*, or take it with pepper & honied wine, or else with the pickle of fish named *Garum*, it prouokes vrine, and putteth him or her in mind of loue delights. Of the same opinion also is *Diocles*. Furthermore, that it is a cordiall, and doth mightily corroborat and strengthen the heart, vpon the recouerie of a long and dangerous sicknesse, and is besides singular good to stay the stomacke after much casting and vomiting. *Heraclides* was wont to giue Skirworts to them who had drunk Quick-silver: so such also as were but cold & could not sufficiently perform the duties of marriage: finally, to them that being newly crept out of their beds after some grievous disease, had need of restoratiues. *Hicesius* was of this mind and said, they were good for the stomacke, because no man could possibly eat 3 Skirwort roots together: yet he thinks that they would agree very well with those weak persons who were

C lately sick and newly walking abroad, against they should fall to their old drinking of wine again. But to come more particularly to the garden Skirwort, if the iuice thereof be drunke with Goats milke, it stayeth the flux of the belly called the Laske. And thus much for the Skirwort, named in Latin *Sifer*. But forasmuch as the proximitie and likenes in many Greek names many a time confounds the memorie and deceiues them, causing them to mistake one thing for another, I wil for vicinitie and neighborhood sake annex vnto *Sifer*, the hearb *Sifer* or *Seseli*; for me thinks they will doe very well to stand together: but this is an hearb very common and well known. The best is that which comes from Marseils, & is therupon named *Seseli Massiliense*: it hath a broad flat seed and a yellow. A second kind thereof is named *Æthiopicum*, with a blacker seed: but the third which is brought from Candie, and therefore termed *Creticum*, is of

D all other most odoriferous & smells sweetest. The root of *Seseli* or *Sifer*, casts a pleasant sauer: and as men say, the Vultures also or Geirs feed on the seed. If a man or woman drinke it with white wine, it cures an old cough; it knits those who are brused bellied, or haue ruptures; and lastly, helps them that be much troubled with cramps or convulsions. Also if it be taken to the weight or quantitie of two or three * *Ligules*, it cures those who haue their necks drawn backward to their shoulders with the Spasme; it corrects the defects and faults of the liuer, it allaieth the wrings and torments of the guts, and bringeth them to pisse with ease and freely who are afflicted with the Strangurie. The very leaues of *sifer* are also medicinable, for they procure easy childbirth: yea and in that respect the very dumb four-footed beast findeth the benefit therof, and that know the Hinds well ynough by a secret instinct of nature, who being neer their time

F and readie to calue, feed vpon this hearbe most of all others. Good it is against *S. Anthones* fire, applied to the place in manner of a liniment. Certes, if a man eat either the leafe or the seed of *Sifer*, presently after meat, or at the latter end of repast, it helpeth digestion. It staies the gurrie or running out of the belly in 4 footed beasts, whether it be giuen stamped by way of a drench and so injected, or chewed drie among their salt meat. If kine or oxen be sicke, stampe it and pour it down their throats, or els clysterize them with it. As for *Elecampane*, if it be chewed vpon an emptie stomacke fasting, it confirms the loose teeth, so that it be taken as it was digged forth of the earth before it touch the ground againe. Beeing confectioned or condite, it cures the cough. The iuice of the root sodden, expells the broad wormes bred in the guts. The powder of it dried in the shadow helpeth the cough, the stitch and cramp, dissolueth windines & is good

F for * the accidents incident to the throat and windpipes. It is a soueraign medicine against the * *Arteries*: pricks or stings of venomous beasts. The leaues applied as a liniment, with wine, appease the extreme pain of the loins. As for Onions, I canot find that there be any of them grow wild. Those which are sown in gardens, I am sure, wil with their smell only cause the eyes to shed tears, & by that means clarify the sight: but if they be anointed with the iuice, they will mundifie the bet-

* *Ligula* may be taken for *scabellum*, a spoonfull: it containeth three drams and a scruple, somewhat vnder halfe an ounce, as a good spoone will doe with vs.

*Sic & attilla
sumant.*

Hydrapes

*Hydrapes,
some read Hy-
pochysis. Suf-
fusions, out
of Diofcorides,
so with the
Cataract.*

ter. It is said that they will procure sleepe, and heale the cankers or vlcers of the mouth, being chewed with bread. Also greene Onions applied with vinegre to the plaec bitten with a [mad] dog, or els drie, and laid to with Honey and Wine, so the plaster or cataplasme be not remoued, in three daies cureth the hurt without danger. In this maner also they wil heal * galled places. Being roasted vnder the ashes, many vse to apply them with Barly floure or meale, as a pulstesse or cataplasme to the eies that be waterie or rheumatick, as also to the vlcers of the priuy parts. The imunction of the eies, with the iuice therof, is thought to clenfe their cicatrises or * cloudines of the eies called the pin and web: as also to cure the pearle there breeding: moreover, the bloud shotting or red streaks, in the white, and the white spots appearing in the blacke circle about the apple. Moreover, it cureth bitings & stings of serpents, yea, and heales al vlcers, being emplastred with honey. Also the exulcerations or impostumes within the ears, are by it & womens milke cured. And for to amend the ringing and vnkind sound and noise therein, & to recouer those that be hard of hearing, many haue vsed to droppe the iuice of Onions together with Goose greafe or els hony. Furthermore, they giue it to be drunke with water, to those that suddenly become speechlesse and dumb. A collution also made with Onions, helps the tooth-ach. And being laid vpon wounds, made either with prick or bite of any venomous beast, and especially of Scorpions, it is thought to be a foueraign salue. Many are wont (to very good effect) for to bruse Onions, and therewith to rub those parts that be troubled with a skurfe and running mange, as also to recouer haire where it is shed and gon. Being boiled, they are giuen for to be eaten, vnto those who are diseased with the blodie Flix or pain of the rains & loins. Their outward pilings burnt into ashes & mingled with vinegre, cure the bitings and stings of serpents, if the place be bathed or anointed therewith, yea, and the very Onion it selfe being applied with vinegre, cures the sting of that shrewd worme Milliped. As for all other vertues and properties of Onions, the Physicians are wonderful contrary one to another in their writings: for our moderne and late writers do hold and so haue deliuered in their books, That onions are hurtful to the parts about the heart, & other vitall members: as also, that they hinder digestion, breeding wind and ventosities, and causing drought or thirstinesse. *Aesclepiades* and his sect or followers, contrariwise affirme, That onions are so wholsome, that they will make them well colored who vse to feed vpon them: and more than so, they say that if one in health euery day eat of them fasting, he shall be sure to continue healthful, strong, & lusty: that they be good for the stomack, in this regard, that they cause rifting and breaking of wind vpward, which is a good exercise of the stomack: and withall, that they keepe the bodie loofe and laxatiue, yea, and open the Hæmorrhoid veines if they be put vp in maner of suppositories. Also, that the iuice of onions and Fennell together, be maruellous good to be taken in the beginning of a * dropisie. Item, That their iuice being incorporat with Rue and Hony, is foueraigne for the Squinace. As also that they will keep waking those who are fallen into a Lethargie. To conclude, *Varro* saith, That if Onions be braied with salt and vinegre, and then dried, no woorms or vermine will come neere that composition.

CHAP. VI.

¶ Of Cut Leekes or Porret: of bolled Leeks: and of Garlicke.

Porret, otherwise called Cut-Leekes or vnset Leeks, stancheth bleeding at the nose, in case it be stamped and put vp close into the nosethrills, or otherwise mingled with the pouder of the Gall-nut, or Minrs. Moreover, Porret staith the immoderat shift or fluxe of bloud, that follows women vpon a slip or abortiue birth, if the iuice thereof be drunk in breast-milke. In the same manner it helps an old cough and al other diseases of breast and lungs. Burnes and scaldings are healed with a liniment made of Porret or Leek blades: likewise the Epinyctides, for so in this place I tearme that vlcere, which in the lachrymal or corner of the eie runneth and watereth continually: some call it Syce, that is to say, a fig. And yet others there be who vnderstand by that word [Epinyctides] the blackish or blew blistering wheals, the bloody fals I mean and angrie chilblanes, that in the night disquiet and trouble folk that haue them. But to come againe to our Porret: the blades thereof stamped and laid too, with Honie, healeth all fores and vlcers whatsoeuer. The biting of any venomous beast, the sting also of Serpents, are cured therewith. As for the impediments of the hearing and the ears, they be remedied with the iuice

L

A of Leeks and Goats gall, or els a like quantitie of honied wine instilled thereinto. And as for the whistlings or crashing noises that a man shall heare within head otherwhiles, they are dis-
cussed with the iuice of Leeks and womans milke dropped into the ears. If the same be snuffed vp into the nosethrills, or otherwise conueighed that way vp into the head, it caseth head-ach: for which purpose also it is good to poure into the eare, when one goeth to bed and lieth to sleepe, two spoonfuls of the said iuice, and one of Honie. The iuice of Porret if it be giuen to drinke with good wine of the grape, against the sting of serpents, and namely, Scorpions: likewise fo taken with an * Hemine of wine, it cureth the pains of the loines or small of the back. Such as spit or reach vp bloud, such as be diseased with the Phthick or consumption of the lungs, such also as haue bin long troubled with the Pofe, the Murre, Catarrhe, and other rheums, find great help by drinking the iuice of Porret, or eating Leeks with their meat. Moreover, Leeks are taken to be very good either for the jaundise or dropfie. Drinke the same with the decoction of husked Barley called Pritane, to the quantity of one Acetabule, you shall find ease for the pains of the rains or kidnies. The same measure and quantity being taken with honey, mundifieth the Matrice and naturall parts of women. Men vse to eat of Porrets or Leekes, when they doubt themselves to haue taken venomous Mushrooms. And a cataplasme therof cureth green wounds. Porret is a sollicitour to wantonnesse and carnal pleasures: it allaieth thirstinesse, & dispatcheth those fumes that cause drunkenesse. But it is thought to breed dimnesse in the eie-sight: to ingender wind and ventosity, howbeit, not offensive to the stomack, for that withall it maketh the belly laxatiue. Finally, it scoureth the pipes & cleareth the voice: thus much of Porret in blade or cut Leeks vnset.

C The headed Leeks that are bolled and replanted, are of the same operation, but more effectual than the vnset Leeks. The iuice therof giuen with the pouder either of Gal-nuts, or * frankincense or els Acacia, cureth those that reject or reach vp bloud. *Hippocrates* would haue the simple iuice therof giuen, without any thing els for that purpose: and hee is of opinion, that it will disipilate the neck of the Matrice and the naturall parts of women, yea, and that they will proue fruitful and beare children the better, if they vse to eat Leeks. Being stamped and laid to filthie fores or vnclean vlcers with hony, it clenfeth them. Being taken in a broth made of Pritane or husked barly, it cureth the cough, staith the rheume or catarrh, that distilleth into the chift or breast-parts; it scoureth the lungs and wind-pipe, and healeth their exulcerations. The like it doth if it be taken raw without bread, 3 bols or heads of them together each other day: and in this maner it will cure the patient, although he raught vp and spit out putrified and corrupt matter. After the same maner it cleareth the voice, & it inableth folk to the seruice of lady Venus, and auaieth much to procure sleep. If Leekes bols or heads be sodden in two waters, (i.) changing the water twice, and fo eaten, they wil stop the Lask, and stay al inueterat fluxes whatsoeuer. The pillings or skins of Leek heads if they be sodden, the decoction therof wil change the haire from gray to blacke, if they be washed or bathed therewith.

E As touching Garlicke, it is singular good and of great force for those that change aire, and come to strange waters. The very sent thereof chaseth Serpents and Scorpions away. And as some haue reported in their writings, it healeth all bitings & stings of venomous beasts, either eaten as meat, taken in drinke, or annointed as a liniment: but principally it hath a special property against the Serpents called Hæmorrhoids, namely, if it be first eaten, and then cast vp again by vomit, and wine. Also, it is foueraigne against the poisonous biting of the mouse called a Shrew: and no maruell, for why, it is of power to dull and kill the force of the venomous herb Aconitum, i. Libard bane, which by another name mental Pardalianches, because it strangleteth or choketh Leopards, yea, it conquereth the soporiferous & deadly quality of Henbane: the bitings also of a mad dog it healeth, if it be applied vpon the hurt or wounded place with him. As for the sting of serpents verily, Garlick is exceeding effectual, if it be taken in drinke: but withal, you must not forget to make a liniment of it, the hairy strings or beard growing to the head, the skins also or tails and all, wherby it is bunched, tempered all together with oile, & laid vpon the grieved place: and thus also will it help any part of the body fretted or galled, yea, though it were risen vp to blisters. *Hippocrates* moreover was of this opinion, that a suffumigation made therewith, fetcheth downe the after-birth of women newly deliuered and brought to bed: who used also with the ashes of them burnt and reduced together with oile into the forme of a liniment, to annoint the running skalls of the head, and thereby cured and healed them vp. Some giue

* Hemine, is
much about
ten ounces.

* Called Man-
na Thuria.

Anisco duplici.

* i. The wringings and torment of the vpper small guts.

Porrigeus, not pruriger, out of Diofco.

* A great desire to goe to the stoole, with doing little or nothing.

* Called Menagria.

Scorpius, called otherwise S. Anthracis fire, Erysipelas.

* Contrary to Saltp.

giue it boiled, others raw, to them that be short-winded, *Dioles* prescribeth it with Centaurie to them who are in a dropsie, he giueth it also to purge the belly between, or in two figs. But green Garlick taken in good wine, together with Coriander, doth the deed more effectually. Some are wont to minister it to those that draw their wind short, being stamped and put into milke. *Praxagoras* the Physitian ordained to drinke it with wine, against the laundise: also against the black passion, in oile and thick *gruel. And in that sort he viued to annoint the swelling kernels called the kings euill. In old time the maner was to giue raw garlick to such as were besttraught or out of their wits. But *Dioles* appointed, that it should be boiled for phrentick persons. Certes, if it be bruised and so laid to the throat, or otherwise gargled with some conuenient liquor, it will do much good to them that haue the squinancie. Take three heads or cloues of Garlick, beat them well, and together with vinegre apply them to the teeth, they will mightily assuage the paine. Or do but make a collution with the broth wherein they were boiled, and hold it in your mouth, and afterwards put some of the Garlicke it selfe within the hollow teeth, you shall see much ease insue thereupon. The iuice of Garlick together with goosegrease, is passing good to be dropped into the ears, to assuage their pain, and bring the hearing again. Being taken in drinke, it clenseth the head from dandruffe, and killeth lice: so doth it also, if it be stamped and applied to the place with vineger and nitre. Seeth it in milke, or do but stamp it and mingle it with soft fresh cheefe, and so eat it, you shall see how it will repress and stay Catarrhes and Rheumes: after which manner it will make them speake cleare that be hoarse, and haue a rusty voice. But let a man who hath the Phthisicke, and is far gone into a Consumption of the lungs, drinke it in bean broth ordinarily, he shall recouer or find great ease. Generally, Garlicke is better, boiled or roasted, than raw: and yet of the twain, it is not so good roasted as foddren: for in that order must it be taken for to help the voice and make a cleare breast. Also, being boiled in honied vineger or Oxymell, and so drunke, it driueth out the broad wormes and all other such like vermin forth of the guts. Being taken in a thicke broth or gruell, it cureth the disease * Tinef-mus. Being foddren to the consistence of an Vnguent, and so applied as a frontal to the temples of the head, it allaieth their paine. Boiled with hony, then stamped and reduced to a liniment, it represseth red pimples. Seeth it with good old seam or greafe, or in milk, it is singular for the Cough. See you one to reach vp bloud, or to spit filthy matter? Roast Garlick vnder the hottembers, and giue it the party to eat, with equall quantity of honie. Being taken with salt and oile, it is a soueraign remedy for them that be bursten or Spasmaticke, that is to say, vexed with the Crampe. Applied with the fat or greafe of an hog, it cureth all tumors and suspicious imposthumes. Being emplastred with brimstone and rosin, vpon Fistulae or such hollow and blind vlcers, it draweth out all the filth and corruption that lieth rankling and festering within. But lay it to a sore with pitch, you shall see it fetch out spils and ends of broken arrowes sticking still within the flesh. The Leprosie, the running and dangerous *tettar, the red pimples also rising in the skin, Garlick doth first frett and exulcerate, but afterwards, with *Origanum*, it cureth and healeth the same. Yea, the very ashes of Garlick burnt, and so tempered with oile and the pickle, [*Garum*] that it may take the form of a liniment, doth the like. The wild fire also, or shingles, that hath gotten to a place, if it be annointed therewith, will be extinguished. Be any place of the body grown black and blew by stripes or blows, a liniment made of Garlick burnt to ashes and tempered with hony, will bring the native and fresh colour again quickly. There is a deepe and settled opinion among men, that if a man or woman do ordinarily take garlick with meat & drinke, they shall find remedy thereby for the falling sicknesse. Also, that one head of Garlick taken in some fryptick & harsh raw wine, with *Laserpitium*, to the weight of one Obulus, driues away the Quartan ague for ever. But after another sort, if it be vsed; to wit, boiled with brused Beanes, and so eaten ordinarily with meat, there is no cough so tough, no vicer within the breast so foule and filthy, but it will stay the one, and cleanse, yea, and heale the other, so as the patient shall recouer perfect health. Garlick maketh folk to sleep well, and giueth a good, fresh, and ruddy colour to the whole body. Garlick stamped with green Coriander, and drunken with strong wine, increaseth the heat of lust, and prouoketh to Lecherie. But as many good properties as Garlick hath, it is not without some bad qualities for them againe. It maketh the eyes dim, it breedeth windinesse and ventositie; it hurteth the stomack, ouer liberally taken, & *causeth thirst: but let me not forget among other vertues which it hath: namely, that if it be giuen to Hens, Cocks, and other Poultry, among their corne, it will keepe them from the pip.

As

A As for Horses, Mares, Asses, and such like beasts that cannot stale, or be ground and wrong in the bellie: stampe Garlick, and therewith rub the shap and naturall parts; it will prouoke the one, and ease the other.

CHAP. VII.

¶ Of wild Lettuce, as well that called *Caprina* as *Efopus*. Of *Ifatis* and Garden Lettuce.

THE first kind of Lettuce that groweth wild of it selfe without mans hand, is that which is commonly called *Caprina*, i. Goats Lettuce. This hearbe hath a propertie, that if it be thrown into the sea, it will presently kil all the fishes that approach neere vnto it. The milkie iuice of this Lettuce being turned thick, and soon after mixed with vineger, to the weight of two Oboli, and one Cyath of water put thereto, is giuen with good successe to those that haue the Dropsie. The stalks and leaues stamped, with some salt strewed among, and so applied as a cataplasme, do heale vp the sinews that be cut or wounded. The same herb being bruised together with vineger, preserueth a man from the tooth-ach, if he vse two mornings euery moneth to wash his mouth with a collution made thereof.

A second kind there is of wild Lettuce, which the Greeks name *Efopus*. The leaues thereof being beaten in a mortar and with barley floure, applied as a pulsette, heale all vlcers: this groweth ordinarily in corn fields.

C A third sort comming vp in the woods, is named otherwise * *Ifatis*. The leaues wherof being likewise beaten together with Barley-meale or floure aforesaid, cureth green wounds.

A fourth kind there is besides of wild Lettuce, named *Glastum*, i. Woad, wherewith diuers vse to colour their wooll. It might be likened to the wild Dock for the leaues, but that they be more in number, and of a blacker green withall. This hearb stancheth bloud. It represseth and cureth the fierie and eating tettars, the cankerous and filthy vlcers also which run and spread ouer the whole and sound parts: also it dissolueth swellings before they gather to an head, & tend to suppuration. The root or leaues thereof be good against *S. Anthonies* fire, applied in a cataplasme or liniment. It is a singular remedy also for the swelled & puffed spleene: and thus much for their properties in particular, respectiue to each several kind: but to speak generally of them all that grow wild, they agree all in this, that they be white; that their stem growes otherwhiles to the height of a cubit; that both it and the leaues be rough in handling. Of these wilde Lettuces, That which hath round and short leaues, some there be who call *Hieracia*; because that Faulcons and such like Haukes are wont to scrape and scratch this herb to get forth the iuice, wherewith they annoint and rub their eies, and thereby recouer their sight, when they perceiue it to be darkened or dim. All the sort of them are full of a white iuice: & the same of the like vertue as is the iuice of Poppies. Ordinarily is this iuice gathered in harvest by incision of the stalk: put vp it is in new earthen pots neuer occupied, and so referred for many excellent effects that it hath. For first and foremost, being applied with womans milke, it healeth all maladies that the eies be subiect vnto, as namely, it riddeth away the cloudy webs therein, the cicatrices and scars: all filthy sores with a burnt roofer them, and principally disparteth the mist and dimnesse that troubleth the eie-sight. It is vsually also laid with a Locke of wooll to the eies, for to repress and stay the waterish humor that hath found a way thither: the same iuice, if one drinke it, to the weight of 2 Oboli, in vineger and water, is a good purgation. Beeing taken in wine, it cureth the venomous stinging of serpents. To which purpose, the leaues being parched & dried against the fire, their tender stems also being bruised, are drunk with vineger. A liniment made of them, is passing good against the priking of scorpions; but peculiarly for the sting of the venomous spiders *Phalangia*, there must be wine and vineger mixt therewith. Soueraigne defensaries also these wilde Lettuces be, against other poisons; saue those that kill by strangling and suffocation, or such as haue a special spight to the bladder; neither are they of any power against Ceruse or white lead. A cataplasme made therof with hony and vineger, & so laid to the belly,

D all that grow wild, they agree all in this, that they be white; that their stem growes otherwhiles to the height of a cubit; that both it and the leaues be rough in handling. Of these wilde Lettuces, That which hath round and short leaues, some there be who call *Hieracia*; because that Faulcons and such like Haukes are wont to scrape and scratch this herb to get forth the iuice, wherewith they annoint and rub their eies, and thereby recouer their sight, when they perceiue it to be darkened or dim. All the sort of them are full of a white iuice: & the same of the like vertue as is the iuice of Poppies. Ordinarily is this iuice gathered in harvest by incision of the stalk: put vp it is in new earthen pots neuer occupied, and so referred for many excellent effects that it hath. For first and foremost, being applied with womans milke, it healeth all maladies that the eies be subiect vnto, as namely, it riddeth away the cloudy webs therein, the cicatrices and scars: all filthy sores with a burnt roofer them, and principally disparteth the mist and dimnesse that troubleth the eie-sight. It is vsually also laid with a Locke of wooll to the eies, for to repress and stay the waterish humor that hath found a way thither: the same iuice, if one drinke it, to the weight of 2 Oboli, in vineger and water, is a good purgation. Beeing taken in wine, it cureth the venomous stinging of serpents. To which purpose, the leaues being parched & dried against the fire, their tender stems also being bruised, are drunk with vineger. A liniment made of them, is passing good against the priking of scorpions; but peculiarly for the sting of the venomous spiders *Phalangia*, there must be wine and vineger mixt therewith. Soueraigne defensaries also these wilde Lettuces be, against other poisons; saue those that kill by strangling and suffocation, or such as haue a special spight to the bladder; neither are they of any power against Ceruse or white lead. A cataplasme made therof with hony and vineger, & so laid to the belly,

E purgeth the rotten humors, & expelleth the worms therof bred: their iuice is singular good for them that pisse with pain and difficulty. *Cratogeomys* prescribeth to giue the weight of 2 Oboli of the said iuice, in one Cyath of wine, to those that be in a Dropsie. Some there be who draw the iuice out of the garden lettuce also for the same purpose, but not with like effect. The peculiar proper-

It should seeme here to be deceived: for *Ifatis* is the same that *Glastum*, i. Woad, and the wilde thereof indeed is leaues like lettuce which was the occasion of his error.

* Pliny should seeme here to be deceived: for *Ifatis* is the same that *Glastum*, i. Woad, and the wilde thereof indeed is leaues like lettuce which was the occasion of his error.

properties of which Lettices, I have partly written of heretofore, & namely, how they procure sleep, abate fleshly lust, coole intemperat heats, cleanse and strengthen the stomacke, and finally, increase blood. Ouer and besides, they haue other properties not a few, for they resoluē and dissolve ventosities, they breake winde vpward, and make one rift and belch sweet, and finally help digestion, and of themselves cause no crudity in the stomack. Certes, I cannot say of any thing else but it, that being eaten, both giueth an edge to appetite, and also dulleth the same: and all according as it is taken, more or lesse. By the same reason also, if a man eat liberally of them, they will make the belly soluble: if in a meane, they will stay a Laske, and bring the bodie to costiuēesse. They cut and dissolve the grosse viscositie of slimie fleame: and as some Physitians haue written, do clarify the senses. Moreouer, if a mans stomacke be quite gone, so that hee neither desireth to receiue any thing into it, nor can hold and keepe that which it receiueh, he shall find notable comfort by eating of garden Lettuce. But for this purpose they must be taken vnwashed, with some sharpe sauce made with vineger, to the quantitie of a certaine Oboli, yet so, as that the tart and harsh taste thereof be tempered with some wine cuit or other sweet liquor for to dip into. Moreouer, this regard ought to be had, that if the fleame lying in the stomacke, be very tough and grosse, the Lettuce would be eaten with vineger of Squilla or the sea-Onion, or else with Worme-wood Wine: and if the Cough bee also busie, then Hyssope Wine would be mingled withall. In case there bee a fluxe occasioned by feeblēesse of the stomacke, then would Garden Lettuce bee eaten together with wilde Endiue or Cichorie: and so are they good also for the hardnesse and swelling in the mid-riffe and about the heart.

White Lettuce eaten in good quantitie, helpeth the infirmities of the Bladder, and agree very well with those who be troubled in their brains, and ouercharged with melancholy. *Praxagoras* aduised also, That they should be eaten for to helpe the bloody flux. Moreouer, if they be laid presently (in manner of a liniment, with salt) vpon a burne or scald, while it is new, and before the place blister, they will fetch out the fire and do very much good. They keepe downe and repress cancerous vlcers, that would be running and eating into the flesh, if they bee applied at the beginning with salt-petre, and afterwards with wine. Being brused into a liniment they heale *S. Anthonies* fire, if the place be annointed therewith. If their stalkes or stemmes bee stamped with drie grout or Barley meale, and laid too as a cataplasme with cold water, they mitigate the pains that follow dislocations or lims out of joint, they asswage also dolorous cramps and convulsions. Being applied in manner of a pulsette with wine and dry Barley groats, they do allay the grieue of red and angry wheales. Moreouer, they were wont in times past to boile them betwene two platters, and so giue them for the disease Cholera, wherein choler is so outrageous, that it purgeth vncessantly both vpward and downward. But for this purpose, there would be choise made of the fairest and greatest stemmes, such also as are bitter, for they bee best. Some to the same effect, make a decoction of them in milke, and so minister it vnto the patient in a clyster. These stalkes being well and thoroughly boiled, are said to be very wholesome for the stomacke also: like as, for to procure sleepe, the garden Lettuce is thought most effectually, namely, that which is bitter and yeeldeth store of milke, which hertofore we haue termed Meconis. This milke Physitians prescribe with very good successe for to clarify the sight, namely, if it be mingled with womans milke, and the forehead annointed therewith in good season and betimes. After the same manner it helpeth the infirmities and diseases of the eyes, proceeding from cold causes. Other vertues and commendable properties besides I finde in Lettuce, of strange and wonderfull operations. And namely, that it cureth the diseases of the brest, as well as Sothern-wood doth, if it be taken with the best hony of Athens. Item, That if any women do eat therof, they shall haue their monthly sicknesse come orderly. Also, that the seed of garden Lettuce is giuen to very great purpose against the pricke or sting of any venomous Scorpion. Moreouer, That if the seed be stamped and taken in wine, it secureth one from the imaginarie fanfies of *Venus* delights, in sleepe, and the pollutions also that thereof do insue. Finally, that certain waters which vse to intoxicate and trouble the braine, shall neuer hurt them that eat any Lettuce. Howbeit, some are of opinion, that the ouermuch vse of Lettuce at meat enfeebleth the eyes, and impaireth their cleare sight.

Of Beets and their sundrie kinds. Of Endiue. Diuers sorts of Cichorie. Of garden Endiue, and two kinds thereof.

The Beets of both sorts are not without their medicinable vertues: for be it the white or the blacke, if one take the root thereof fresh and new out of the ground, wet it thoroughly, and soke it well in water, and then carry it about him hanging by a string or lace, it is a soueraigne preseruatiue against the biting of serpents. The white Beet boiled and eaten with raw Garlick, expelleth the broad wormes in the belly. The roots of the black, sodden after the same manner in water, rid away the dandruffe or vnseemly skales within the haire of head or beard. And indeed generally for any vse, the black Beet is more effectually than the white. The iuice thereof is singular good for an old and settled head-ach. For the dizziness or swimming in the head. Also, it riddeth away the ringing and ringing in the eares, if it be dropped into them. It procureth vrine: being injected by a clyster, it cureth the bloody flux: it helpeth also the Jaundise. Moreouer, the said iuice appeaseth the intolerable pain of tooth-ach, if the teeth be rubbed or annointed therewith. Singular it is, against the stinging of serpents: but then it must be drawne from the root only. And make a decoction of the said root, it helpeth kided heeles. As for the iuice of the white Beets, it staith the rheume or waterish humor that falleth into the eyes, if the forehead be therewith annointed. And put but a little Allum thereto, it is an excellent remedy against *S. Anthonies* fire. White Beets only stamped, although there come no oile vnto them, healeth any burne or scalding, if the place be therewith annointed. Moreouer, against the breaking out into red and angry pimples, the same is very good. But seeth Beets, and make thereof a liniment, it represseth the vlcers that run and spread abroad. The same being raw, rubbed vpon the bare places, where the haire is shed, recouereth haire, yea, and staith the running skales of the head. The iuice of these Beets tempered with honey, and snuffed vp into the head by the nostrils, cleanseth the braine. There is a certain meat made with * Beets & Lentils boiled together, which commonly is eaten with vineger for to make the body laxatiue. The same being overtodden to a thicke consistence, staith both the turning of the stomacke, and flux of the belly.

There is a kind of wild Beet, which some name Limonion, others Neuroides: it hath leaues much lesse and tenderer than the other, howbeit, growing thicker, & riseth vp many times with eleuen stalks. The leaues of this Beet are very good for burnes and scalds: they restraîne and stay all Fluxes by drop meale, which breed the Gout. The seed being taken to the quantity of one Acetabulum, cureth the bloody flux, & healeth the vlcere of the guts that causeth the same. Some say, that if this Beet be sodden in water, the decoction will scoure and take out any stain in cloths, euen the very iron-mole: likewise it will wash away any spots in parchment.

Now as touching Endiue or garden Cichorie, furnished also it is with many properties effectually in Physicke. The iuice thereof mingled with oile Rosat and vineger, allaieth the paine in the head. The same if it be drunk with wine, is good for the liuer and bladder. Also, if it be laid to the eyes, it stoppeth the humor that hath taken a course thither. The wild Cichorie, that groweth wandering here and there abroad, some of our Latin writers name * Ambugia. In Egypt they call the wild Endiue, Cichoreum; & the tame garden Endiue, Seris: the which indeed is lesse than the other, fuller also of ribs and veines. As for the wild, which is Cichorie, it hath a cooling nature, being eaten as meat, but applied in forme of a liniment, it is good against the collection of humors that ingender imposthumes. The iuice of it sodden, doth loosen the belly. Whole some it is for the Liuer, the Kidnies, and the Stomack. Likewise, if it be boiled in vineger, it resolueth the painfull torments occasioned by the stopping or difficulty of vrine, and openeth passage to make water at ease. Moreouer, if the iuice or decoction thereof be drunk with honied wine, it cureth the Jaundise, so it be without a feuer. It is comfortable also & helpfull to the bladder. Boiled in water, it is so powerfull to bring downe womens termes, that it is of force to send out the child, if it be dead in the mothers belly. The Magicians say moreouer, that whosoever annoint their bodies all ouer with the iuice of this herb and oile together, they shall be right amiable, and win the grace and fauor of all men, so as they shall the more easily obtain what soeuer their heart stands vnto. And verily, for that it is so singular and wholesome to mans body, some giue it the name of *ambigua*, others of *ambigua*.

* For that be-
ing eaten with
meat, it ma-
keith the breth
sweeter.

As for another wild kind, some call it *Hedynois, & that hath a broader leafe than the rest. G
Being sodden, it is astringent and will strengthen a weak stomack: and eaten raw, it bindeth the
belly and staith the lask. Holesome it is for such as haue the bloody flux, the rather if it be ta-
ken with Lentils. In sum, as wel raw as sodden, both kinds, the one & the other, help those that
haue cramps and ruptures. Comfortable it is likewise to such as vpon occasion of debility or
sicknesse, haue their nature or feed run from them against their wills.

Touching Cichory of the garden, which is very like vnto the Lettuce, there be two kindes
thereof; but the green that seemeth to be of a wilde and sauage nature, is the better: of a more
brown and dusky colour it is, and a Summer herb only. The other indeed is whiter and con-
tinueth all winter, howbeit worfe of the twaine: and yet both the one and the other, are right
comfortable to the stomack, especially when it is overcharged with waterish humors. Being
eaten in a salad with vinegre at meat, they refresh and coole mightily: so do they also in forme
of a liniment, and by that means resolve other humors besides those in the stomack. Generally
the roots of all wild Cichories being sodden with barley grouts to a gruel, and so supped off do
comfort a weak stomack. Being reduced into a liniment, & applied to the region of the heart
about the left pap, with vinegre, they cure the trembling thereof, and the faint cold sweats that
break out vpon weaknesse. All the sort of these Cichories as well tame as wild, being taken in
broth each other day, be good for gouty persons, for such also as reach and cast vp blood, shed
their sperm or haue the running of the reins. Howbeit *Petronius Diodotus* in his booke intituled
* Contradictions, utterly condemned the garden Endiue Seris, and alledged many reasons and
arguments to confirme that position of his; howbeit the whole collidge of all Physicians be-
sides stand against him. I

* *Antilegonia* -
is, some read
it *Antilegonia*.
is, flower gith-
rings.

CHAP. IX.

¶ Of Garden Coleworts, *Lappana*, Sea Coleworts, or *Soldanella*; of *Squilla*; of other bulbous roots, as
the Potatoes: and of *Bulbium*.

THE commendable proprieties of the Colewort are so many, that it were a long labor to
discipher them all, considering that both *Chrysippus* and *Diuenches*, two Physitians, haue
compiled each of them a booke particularly of this hearbe, wherein they haue collected
their vertues, as they be appropriat and reserue to euery part of mans body; yea and before al
others, *Pythagoras*, and after him *Cato*, haue as amply set out the praises thereof. As for *Catoes* opi-
nion and judgement of the said herb, I am the more willing in this place to set downe and fol-
low diligently, because it might be knowne what simples and what drugs they were which the
old Romans vsed for their Physicke * 600 yeres after the foundation of the city. The Greeke
writers of greatest antiquity, haue made three kinds of Coleworts; to wit, the crisped or ruffed
cole, which they called *Selinas* or *Selinoides*, for the resemblance that the leaues haue to Par-
sley: these Coleworts be good for the stomack, and gently loosen the belly. The second sort is
named in Greeke * *Lea*, with broad leaues springing forth from a great stem: whereupon some
haue giuen it the name of * *Caulodes*: these woots are to no vse at all for Physicke. The third
is properly called by the name of Crambe; very well stored with leaues this is, but those are L
smaller than the rest, simple also & plain: bitterer besides this Cole is in comparison of others,
but most effectuall in Physick. Howbeit, *Cato* preferreth before all, that which is crisp and friz-
zled: next vnto it, the smooth Cole, with the large leaf & big stalk. He commendeth the Cole-
wort (stamped raw together with vinegre, honey, Coriander, Rue, Mints, and the root of *Lafer*)
to be singular good for the head-ach, the mist and dimnesse of the eyes, the appearance of spar-
kling mores before them, the stomack and precordiall parts; if a man take fasting 2 *Acetables*
of this composition. And he saith moreover, that this confection is so soveraign, that they who
doubt bray and beat the ingredients, shall sensibly find themselves mightily comforted and
fortified thereby. And he concludeth withall, that Coleworts may be either stamped together
with the foresaid species, and so taken in a supping; or els be eaten, first dipped and foked in the
foresaid liquor: as also that a liniment made of them, together with Rue, a little Coriander,
some few coris of salt, and barley meale, is soveraigne to assuage the paines of any gout, be it
in feet, hands, or any other ioint whatsoever. Moreover, that a decoction made thereof, doth won-
derfully comfort and fortifie the sinewes, yea and mitigate the arthriticall griefes or ioint-ach,
if

* For about
that time *Cato*
liued.

* 1. Smooth
and plain.
* 2. The stem-
like Cole.

A if the parts be tormented therewith.ouer and besides, a fomentation made therewith, is singu-
lar for al fresh wounds, old vicers, yea and cankers, which could not possibly be repressed or hea-
led by any other medicines: but he appointeth first that they be bathed in hot water, and then a
cataplatme of the said worts to be laid vpon the afflicted place, and the same to be refreshed
twice a day. By which manner of cure, he saith, that fistulous sores may be healed, dislocations
set straight, swellings and imposthumes drawn outward to an head, or otherwise where need is,
discussed & resolved, before they tend to suppuration. He addeth moreover & saith, that who so-
ever eat good store of sodden Coleworts, together with oyle and salt fasting in a morning, shall
fall to sleep again in the night if they were before overcharged with watching, & in their sleep
shall not be troubled with dreams or other vnquiet fantasies and imaginations. Furthermore hee
B affirmeth, that worts twice boiled are excellent good for the torments and wrings of the belly,
so there be ioyned to the second decoction, oyle, salt, cumin, and barley groats; and thus beeing
eaten without bread, they are the better among other effects that these Coleworts do work, this
is not to be forgotten that they purge cholerick humours, being taken with sweet grasse wine.
More than that, he auoucheth, That if his vrine, who vse to feed of Coleworts, be refered, it is
singular good for the sinews, if the griued part be bathed therein after it is made hot again. But
because you should fully vnderstand his meaning, I care not much to set downe his very words
for to expresse the same the better. If (quoth he) you wash little children with the said vrin pre-
pared in manner aforesaid, they will neuer be weak and feeble in their lims. He aduiseeth more-
ouer, to drop the juice of Coleworts warme into the eares with wine, and assureth vs that it is
C good for them that be hard of hearing. Finally, that ringworms, tetter, itch, and dry scabs (such
as be not exulcerat) are healed thereby.

Now concerning the opinion of the Greeks also, as touching Coleworts, I thinke it meet to
set them downe for *Catoes* sake, I mean touching those points only that he ouerpassed and omit-
ted. First and formost therefore, the Greeks hold, that the Colewort being not thoroughly sod-
den, purgech choier & keeps the body soluble; howbeit twise sodden, it bindeth the belly. Item,
That it is contrary to wine, and a very enemy to vines. And more particularly, if it be taken fas-
ting, or in the beginning of a meale before other meat, it preserueth a man from drunkennesse;
and eaten after meat when a man is drunken indeed, it riddeth away the fumosities in the brain
and bringeth him to be sober. Also, that it is a meat appropriate to the eyes, and cleareth the
D sight very much; in somuch as the iuice of it raw is passing soveraigne for that purpose, in case
it be mingled with the pure Atticke hony into an eye-salue, and therewith the corners of the
eyes be but touched only. Moreover, that it is passing light of digestion, and clarifieth all the
senses, if it be ordinarily eaten. *Erasistratus* and all his schoole, doth ring and resound again with
one voice and open mouth, That there is nothing in the world better for the stomack, nothing
more wholesome for the sinews; and therefore with one accord they prescribe the vse thereof, for
those that haue the palsie or resolution of the nerues; for as many as be troubled with the trem-
bling and shaking of their lims, to such also as reach & cast vp blood. *Hippocrates* giueth coun-
sell to them that be afflicted with the bloody flux or exulceration of the guts; to those likewise
who be subject to the flux proceeding from the weaknesse of the stomack, for to eat it twise
E sodden with salt. Also he prescribeth it in the cure of *Tinesmos* (which is a prouocation or ex-
traordinary appetite to seege, without doing any thing,) and of the paine in the back or reines.
And he is of this judgement, That women in childbed shall be good nources and haue plentie
of milke, if they eat of Cabbages or Coleworts; yea and women in general, by feeding thereup-
on, shall see their monthly termes duly. As for the Cole it selfe, if it be chewed raw, it is (by his
saying) of force to expell a dead infant in the wombe. *Apollodorus* holdeth resolutely, That ei-
ther the seed or iuice thereof taken in drinke, is a singular remedy for them who suspect that
they haue eaten venomous mushrooms. *Philistion* giueth the iuice thereof in Goats milke, toge-
ther with salt and honey, vnto such as haue a cricke or cramp drawing their necks backward,
that they are not able to turne their heads. I find moreover, that by eating Coleworts at meat
F ordinarily, and by drinking the decoction thereof, many haue been deliuered from the gout. It
is an vsual medicine and approved by experience, to giue it with salt for the fainting sweats &
trembling of the heart, as also for the falling euill. Such as be troubled with the spleene, finde
much ease thereby, if they continue drinking the iuice thereof in white wine at their meals forty
daies together; like as those that be sped with the yellow jaunice, or in fits of frensie, be cured
with

with gargling & drinking juice of Cole-roots raw. But against the Hocquet or Yex, there is a notable medicine made with it, together with Coriander, Dill, hony, pepper, and vineger. If the pitch of the stomacke be annointed therewith, the Patient shall evidently perceiue, that it will dissolue the wind and pulling ventosities therein. Also, the very water of the decoction incorporate together with barley-meale, vnto a liniment, is singular good for the stinging of Serpents, and mundifieth filthie old vlcers: to which purpose also serueth the juice thereof, applied with vineger and Fœnigreek. After the same manner, some make a cataplasme, and applie it to goutie joints. The bloody, falls and blistering chilblanes, and generally all humors that ouer-run the body and fret the skin, are allaiied by the application aforesaid. In like manner, the sudden mists and dimnesse which commeth ouer the eie-sight, is disclused & dispatched clean, in case one do no more but chaw this herb in vineger. A liniment made with it and * brimstone together, helpeth the black and blew-spots of dead brused blood lying vnder the skin, and reduceth them to their owne colour. But if round alume and vineger be joined therewith, it cureth the white leprosie, and dry scab [called of some *S. Magnus euill*.] And in that manner prepared, it keepeth the haire fast that is ready to shed. *Epicharmus* saith, That this herb is soueraigne good to be implaistred vpon those tumors and swellings that be incident to the priuy members, and the rather, if the said implaister be made with bean meale. The same being applied with Rue, is good for convulsions or crampes. Moreouer, there is a medicine prescribed to bee made of Coleworts and Rue-seed, against the extreme heat of feuers ardent, as also for the defects and infirmities of the stomack, and to send out the after-birth in women newly laid. The powder of Colewort leaues dry, doth expell or euacuate one way or other, the venome left behind by the biting of the hardy threwe-mouse. Of all kinds of Coleworts, the sweetest and most pleasant to the tast, is the * Col-flory, although it be counted good for nothing in Physick, and besides vnholisme, as being hard of digestion and an enemy to the kidnies. Ouer and besides, I must not forget this one thing of Coleworts, That the broth or decoction thereof (so highly prayed for many good vses that it is put vnto) if it be poured on the ground, hath but a stinking smel with it. Wort-stocks being dried and burnt into ashes, is thought to be a caustick medicine or potentiall cautery. The same ashes mingled with old grease and reduced into a cataplasme, helpeth the pain of the Sciatica: but with Lafer and vineger, it is a depilatory, (i.) keepeth the hayre from growing againe where it was once fetched vp by the roots. The sayd Colestocke ashes set ouer the fire vntill it siuer only, or haue one walme at the most, and so drunk with oyle, or otherwise foddren, and the decoction taken alone without oyle, is good for Spasmes and crampes, for inward bruiises, and for such as are false from some high place. Lo, what a number of prayse-worthy vertues are recounted of Coleworts! And is there (I pray you) no fault to be found with them? are they blamelesse? ywis no: for euen those writers who extolled them so highly, note them for making a stinking breath, and for hurting the teeth and gums: in so much as in Egypt, they be in so bad a name for their bitternesse & vnpleasant tast, that no man knoweth how to eat them. But to come again vnto *Cato*, he commendeth the effects of the wilde or wandring Colewort infinitely about the rest; in so much as he affirmeth, that the powder of it dried, being gathered and incorporat with some conuenient liquor into the forme of a pomander, or otherwise strewed vpon any posie or nosegay, so as it may be receiued and drawn vp into the head by the nostrills, cureth the * filthy vlcers growing therein, and the stinking smel that commeth from them. This Cole-wort, others call *Petræa*, and this is that which of all the rest is most aduerse and the greatest enemy to wine; this is it that the vine (by a secret Antipathie in nature) doth especially auoid, if it haue room to decline from it; but in case she cannot shift from it, she dieth for very griefe. This plant hath the leaues growing two by two together, and those small, round, smooth, and liker indeed to the young plants of * Beets than to other Coleworts; whiter also it is, and more rougher clad with a mossie downe, than is the garden Colewort. *Chrysippus* writeth, That it is a soueraigne medicine for flatuosities, and such as be oppressed with melancholy: that it is a singular salue for fresh wounds, being applied with hony; but with this charge, That the plaster be not taken off in feuen daies. Also, if it be stamped and applied with water, it is an excellent cataplasme for the Kings euill, and fistulous inward vlcers. Other Chirurgions and Physitians do affirm, that it represent running & corasie sores which eat into the flesh, such as the Greeks name *Nomus*. Item, that it doth extenuare and resolu all excrescence of proud, ranke, or dead flesh; yea, and it doth incarnate, heale vp, and skin very faire without

*Cum Sulphure illita.

*Gym.

*Some call the Topp.

*Oleris.

- A without skar, by their saying. Moreouer, if it be chewed, or the juice thereof gargarised with hony, so that the herb were souden before, it cureth the sores in the mouth called cankers, as also the mumps and inflammation of the kernels in the throat, called amygdalae, or almonds. Semblably, if a man take three parts of this herbe, with twaine of alume, and together with Vinegre make a liniment thereof, it will cleanse the inueterate dry scab, and the mortified leprosie. *Epicharmus* is of opinion, That for the biting of a mad dog, a man need doe no more but lay to the fore a cataplasme of this herb alone: but surer it were (saith he) and more effectual, if Lafer and strong sharp vinegre were ioyned thereto. He addeth moreouer and saith, That if it be giuen to dogs with some peece of flesh it will kill them. And yet the seed being parched is a remedie against the sting of serpents, and a countre-poison to venomous Mushrooms and Bils blond. The leaues boiled and giuen with meat, or otherwise raw and made into a liniment together with brimstone and nitre, help those that be diseased in the spleene. The same liniment mollifies the hard swellings of womens breasts. The ashes of the root being burnt, cure the uvula, or swelling of the wezil in the throat, if it be but touched therewith. Also a liniment thereof with hony applied to the inflamed kernels behind the eares, representh them, yea and healeth the stinging of serpents. I haue not yet done with the Colewort and the vertues thereof; but one instance more I will giue you, to proue the wonderfull force and effect that it worketh. If any brasie pot caldron, or such like vessel wherein we vse to seeth water ouer the fire, haue gathered in continuance of time a fur or crust baked within, such as by no washing or scouring can be rid away, bee the same neuer so hard, deep settled, and inueterate; boile but a cabbage or Colewort in it, and the same will pill and go from the pot sides.
- C Among wild worts we may place *Lapfana*, a plant growing to the height of a cubit, bearing a furred or hairy leafe, like for all the world to the Navew, but that the floure is whiter. This herb is commonly soddren and eaten in pottage; and to taken it moderately loosneth the belly. The sea Colewort [otherwise named *Soldanella*] of all others purgeth most forcibly: in regard of which acrimonie that it hath to stir the belly, Cookes vse to seeth it with fat meat, and yet is it most contrary to the stomack.
- Touching Squills of Sea-Onions, Physitians hold that the white is the male, and the blacke the female; but the whitest of them be euer best and of most vse. The maner of preparing and dressing them is after this sort: First, the dry tunicles or skins being pilled off, the rest, which is quick and fresh vnderneath, must be cut into slices, & so infiled vpon a thred along with a pretty distance between every one, and hanged vp to dry: afterward, when the morcels be sufficiently dried, they are to be put, hanging still as they did by a string, into a baryl or vessel of the strongest and quickest vineger that can be gotten, and therein they must hang so as they touch no part of the said vessel: but this would be set in hand with 48 daies before the summer solstice. Which done, the barrel of Vineger before said being well luted and stopped close with plaister, must be set vnder a rooffe of tiles, to receiue the heate of the Sun all the day long from morning to night. Now when it hath bin thus sunned so many days as are before named, the vessel is removed from vnder the case of tiles, the Squilla taken forth, and the vinegre poured out into another vessel. This vinegre clarifieth their eie-sight who vse it: comfortable it is to the stomack and sides, and assuageth their paine, if it be taken in small quantitie once in two daies: for if a man should dring ouer liberally of it, so forcible it is that it would take away his breath, and cause him to seem dead for the time. Squilla chewed alone by it selfe is wholsom for the gums and teeth. Being drunk with vineger and hony, it chafeth out of the belly the long flat worms and all other such like vermin. If it be but held vnder the tongue while it is Greene and fresh, it allaieth thirst in the drownde, and causeth that the Patient shall desire no drink. The boiling of Squilla or the sea-onion is after many sorts: for some, after they haue either well luted, or els greated is all ouer with fat, put it into a pot of earth, and then set it into an ouen or Furnace to be baked. Others slice it into gobbets, and so seeth it between two platters. Some take it green and dry it, then they cut it in peeces and boile it in vineger, and being thus vsed and prepared, apply it to the places which be stung with serpents. Others againe rost it first in the embers, and after they haue cleansed it from the vtmost pilling, take the best of it onely in the mide, and seeth the same again in water. Being thus baked and sod both, it serueth to be giuen in a dropsie. And if it be drunk to the quantitie of three Oboles with hony and vinegre, it prouoketh wine with ease. In like maner, this composition is good for those that be troubled with

F a

the

the spleene, or haue weak and feeble stomacks, or be troubled with gnawing and pain there: such also as cannot hold their meat, but it will flote aboue and come vp again: provided alwaies, that there be no vicer within the body. Moreouer, it is excellent good for the wringing in the guts, the jauniffe, the old cough, with shortnesse of wind. The leaues emplaftered resolue the wens, or fwelling kernels in the neck, commonly called the Kings euil, but they must lie foure daies before they be remoued. Being sodden in oile and reduced to a liniment, and so applied, it mundifieth the skurfe or dandruffe of the head, the running skalls likewise that are bred there. It is vsed also (boiled vp with hony into a certain confection) taken with meat for to helpe digestion, and in that sort it purgeth the intrals. Sodden in oile and tempered with rosin, it heales the chaps and clifts in the feet. The seed of Squilla implaftered with honey vpon the reins of the back or the loins, easeth the pains. *Pythagoras* was of opinion, and so reported, that if the Squilla or Sea-onion were hanged vp in the entry of any dore, it kept out all charms, enchantments, or forceries. And thus much of Squilla.

Moreouer, the plants called Bulbs, being applied in form of a liniment, with brimstone and vinegar, do cure the wounds of the visage: and stamped by themselves alone, and so laid to, they help the contraction or shrinking of sinues: and if there be wine added thereto, it clenseth the dandruffe in head, beard, and eye-browes: but applied with honey it cureth the biting of mad dogs: howbeit *Erasthenes* taketh pitch in stead of hony for the said purpose: who writeth besides, That a cataplasme of them and hony together, stancheth bloud in a green wound: but others ioyne Coriander and corn-meale to the rest, properly for bleeding at the nose. *Theodorus* cureth wild tetteris and ring-wormes therewith, being applied with vinegre: and with styptick harsh wine, or an egg, he vseth it for the breaking out in the head. Moreouer, a liniment made of Bulbs he applieth about the rheumatick humors that fall to the eies, and by that means cureth those that be bleere eyed. Semblably, the red of this kinde especially reduced into a liniment, and first incorporat with hony and nitre, taketh away all the spots and blemishes that disfigure the face, if they be anointed with it in the sun: but with wine and Cucumber sodden they rid away also the red pimples. They be wonderfull good of themselves alone for green wounds; or with honied wine (according to the practise of *Damion*) so they be not remoued in fiewe daies; and he was wont therewith to cure cracked eares also, and the flatuous flegmatick tumours of the cods. Others there be who apply them with meale mingled among, to assuage the pain of the gout. Sodden in wine, and so applied as a liniment to the belly, they mollifie the hardnesse in the precordial parts and midriffe: and for the bloody flixe, a drinke made thereof, together with raine water and wine, is a singular remedy. Being taken in pils as big as beanes, with Silphium, they are souveraine for the contraction of nerues or inward crampes within the bodie. Stamped into a liniment, they restrain immoderat sweats that be diaphoreticall. Comfortable they be to the nerues, and therefore they are prescribed and giuen in case of the palsie. Those with the red roots being made into a cataplasme with salt and hony, doth speedily cure the dislocations of the feet that be out of ioynt. The bulbs of Megara especially do prouoke lust. As for those that be called Hortensij, taken with Cuit wine or Bastard, make speedy deliuerance of the child out of the mothers belly. The wild bulbs brought into the form of pils, with *Laserpitium*, and so swallowed downe, do heale inward wounds and other maladies of the intrals. The seed of the garden Bulbes in wine, is a good potion against the sting of the spiders called Phalangie: and the roots with vinegre serue for a liniment against the stings of other serpents. The antient physicians in times past were wont to giue the seed in drinke to them that were out of their wits. The floure of these Bulbes being bruised into a Cataplasme taketh away the red daped spots in their legs who haue sit neere the fire and burnt their shins. But *Diodes* is of opinion, that all these bulbous plants do dim the eie-sight: who saith moreouer, That they are not so good boiled as roasted: and yet be they all (saith he) hard of digestion more or lesse, according to the nature of each one that eateth them.

There is an herb which the Greekes call Bulbine, with a red bulbous root, and leaues resembling Porrer: of which there is a singular good salue made for to heale green wounds, but none els. To conclude, as touching the bulb called Vomitorius (of the effect that it hath to prouoke vomit) it hath blackish leaues, and those longer than the rest.

¶ Of Garden Sperages, and the wilde Sperage *Corruda*: of *Lybicum* and *Hormenium*.

OF all Garden herbs, the Sperages are (by report) the best meat to be eaten, and agree passing well with the stomack; and verily being taken with Cumin, they dissolve the ventosities in the stomack, and dispatch the wind cholick, and withall they cleare the sight passing well. Kindly do they mollifie the belly and keep it soluble. If they be sodden in water, and a little wine put thereto in the boiling, and so giuen to drink, they are very good for the pain of the brest & the backbone; for the diseases also within the guts. If one take the weight of three Oboli of the seed, and as much of Cumin, and so drinke it in some conuenient liquor, hee shall find a singular remedy for the pain of the reins, hanch, and loines. Garden Sperages sollicit vnto the game of loue, and procure good deliuerance of vrine; for which they had no fellow, but for feare that they will fret and exulcerate the bladder. Most Physicians doe highly commend their roots brused and taken in white-wine, for to expell the stone and grauell; as also to allay the pains of the reins, flanks, and loins. Some there be, who giue to drinke in some sweet wine the said root, for the grieuous pains of the matrice: and the same being well and thoroughly boiled in vineger, is a souveraine remedy for the leprosie, to as many as will vse to drinke the said decoction. If a man be anointed with Asparagus or garden-Sperage, stamped together with oile and so made into a liniment, there will not (by report) a Bee come neere for to sting him.

The wild Sperage, some name it *Corruda*, others *Lybicum*, but the Athenians call it *Hormenium*: this herb is more effectuall in all those matters aboue rehearsed than the former, & the whiter that it is, the greater force it hath. The jaundife it doth dissipate and drue away. When it is sodden in water, the decoction thereof to the quantity of a * wine pint or somewhat lesse, is vsually prescribed to them that desire to performe the act of generation lustily. For the same purpose also, the seed thereof and Dill, of each three oboli, is counted very good beeing taken in drinke. The iuice thereof boiled, is giuen against the stinging of serpents. The root of it and Fennell together, is thought to be most singular and of greatest efficacy in that case: for if pissing bloud, *Chrysippus* prescribeth to giue in two cyaths of wine for fiewe daies together, three oboli of the seed of Asparagus, Parsley, and Cumin; but he saith withall, That this medicine is nothing good for the dropisie, notwithstanding that it is diuretical and prouoketh vrine. Also that it is aduerse and contrary to the delights of *Venus*, yea and to the bladder, vnlesse the same ingredients be sodden, and yet will that decoction kill dogs if it be giuen to them. To conclude, the iuice drawne out of the root thereof, being first boiled, and so held in the mouth, is good for the teeth.

¶ Of Parsley, wild *Ach*, of *Smallach*, and *Ach* of the mountains.

Parsley is in great request, and no man lightly there is but loueth it: for nothing is there more ordinary, than to see large branches of Parsley good store, swimming in their potage: and commonly you haue not a sallad or sauce serued to the boord, you see not a piece of meat forced or seasoned, but Parsley carieth therein a great stroke, and contenteth euery body.ouer and besides, if it be applied as a liniment, together with honey vnto the eies, so that they be fomented also euer and anon with the hot iuice of Parsley boiled, it is a singular remedy for the humours distilling thither. Also, if it be but stamped by it selfe alone, or els with bread or barley groats, it wonderfully helpeth the defluction falling vpon any other part, if the same bee laid vpon the place afflicted in manner of a cataplasme. Moreouer, if a man perceiue that the fish in any pond or stew do milke and grow sickly, it is a common practise to giue them green parsley to scoure and refresh them. Howbeit, for all that Parsley is so good, there is not an herb growing vpon the face of the earth, that learned men varie and disagree in opinion more about, than they do in it; & yet they hold all, that there is a distinct difference therein by the sex: for of Parsley there is both male & female, many which is the one & which the other, they accord not. *Chrysippus* saith, That the female hath more crispe & curled leaues than the male, and those boistrous & hard; that the stalk is thick, & the tast of the herb biting & hot. *Dionysius* describes it

to be more blackish, hauing a more stubbed & short root, & that it is apt to breed little worms. Both of them jump in this, that it is not to be admitted to the table, nay, they forbid to eat of it at all. Making a matter of conscience once to touch it as a meat, and why for because, forsooth, it is one of the viands ordained to be serued vp at funerall feasts.ouer and besides, Parsley is thought to be an enemy to the eies, and to trouble the sight. Also that the stem of the female ingendreth grubs & such like wormes; and so, whosoever eateth thereof, man or woman, shall thereby become barren. Moreouer, they affirm, that if women newly deliuered, or such as nurse children, do eat of Parsly, the babes that suck and draw their breasts, shall be subiect to the falling sicknesse. And yet of the two, the male is lesse hurtfull: which is the very reason that it is not condemned among the forbidden herbs and such as be held vnlawfull to be eaten. Parsley being laid as a cataplasme to womens breasts, doth mollifie their hardnesse, & break the kernils. It giueth a pleasant tast to any water wherein it is sodden: the iuice of this herb, & especially of the root being taken in wine, doth mitigate the pains in the loins and flanks: and being dropped into the ears, cureth the hardnesse of hearing. The seed of Parsly moueth vrine, draweth downe womens floures, and fetcheth away the after-birth. Seeth the said seed, and with the decoction bath the black and blew marks remaining after stripes or drie blows, it wil bring them to their own colour again. The same being laid as a liniment with the gleire or white of an egge vnto the reines of the backe, or being sodden in water, and the broth drunken, easech their paines and strenghteneth them. Being brused & vsed in cold water by way of a collution, it cureth the cankers or vlcers in the mouth: the seed drunk with wine, breaketh the stone of the bladder: so doth the root of it also if it be giuen in old wine. Also the said seed in white wine cureth the jaunise.

* It is said that he meaneth by *Apiastrum* a kind of *Ranunculus*, i. Crow-foot, called *Flammula*, our Spere-wort, or *Apium vifum*.

As touching our wild Ach, which we call in Latine * *Apiastrum*, *Hygimus* verily nameth it *Melissophyllon*. A venomous herb this is in Sardinia, and by all writers confession vtterly condemned: for surely I cannot chuse but range together in one rank al such as seem to depend vpon one name in Greeke.

But *Alisanders*, which the Greeks terme *Hippocelinum* is a good counterpoison against the biting of Scorpions. If the seed be taken in drinke, it cureth the wrings & torments of the guts. The same being boiled and drunk with honied wine, helpeth the Strangurie and difficulty of making water. The root sodden in wine, expelleth stone and grauell by vrine: it putteth away also the paine of the loins, flanks, and sides. Taken in drinke, or applied as a liniment, it healeth the biting of a mad dog. The iuice thereof in drinke, heateth them that are ready to chill and be frozen with cold.

A fourth kind of Ach or Parsley some haue made that, which the Greeks call *Oreocelinum*. A plant this is, growing to the height of a span, and * vpright. The seed resembleth Cumin, and is found effectually to procure vrine and prouoke womens termes. Finally, as *Smallage* hath a propertie and vertue by it selfe to heale the pricke or sting of the venomous Spiders: so this mountaine Ach or Parsley of the hill, being taken in wine, is as effectually to bring down the naturall purgation of women.

CHAP. XII.

¶ Of Stone-Parsley, named *Petroselinum*: and of *Basill*.

Here is another kind of Ach or Parsly growing vpon rocks, which some call *Petroselinum*. An excellent herb for foule imposthumes and botches, vsed in this manner: take 2 spoonfulls of the iuice thereof, put it into a Cyathe of the iuice of Horehound, and mingle all together in three Cyaths of water, and so drinke it hot. Some haue set in the range of these Achs, that which is called *Buselinon*: which differeth from the garden Parsley, in that it hath a shorter stalk, and a root of red colour: but of the same operation and effect it is. For both taken in drinke, and applied as a liniment, it is of great power against the stinging of serpents.

Also, *Chrysippus* mightily crieth out vpon *Basill*, as being hurtfull to the stomach, suppressing vrine, and an enemy to a cleare sight. Moreouer, he saith, that it troubleth the brains, and putteth folk besides their wits: that it bringeth the Lithargie vpon as many as vse it, and breedeth opiations and diseases in the liuer. In which regard he saith, That Goats by a secret in Nature doe refuse and eschew it; concluding thereupon, that men also should take heed thereof and auoyd it. Some there be who haue not done with it so: but adde moreouer and say, That if *Basill* be

stam-

A stamped and put vnder a stone, it will breed to a serpent: if it be chewed in ones mouth and layd abroad in the Sun, it wil ingender wormes and magots. The people of Africk are verily persuaded, and so they giue out, That if one be stung with a scorpion the same day that he hath eaten *Basill*, it is vnpossible for to scape with life. Likewise some hold opinion and would beare vs in hand, That if a man stamp a bunch or handfull of *Basill*, together with ten sea crabs, or as many crafishes of the fresh water, all the Scorpions thereabout will meet and gather together about that bait. Finally, *Dioscorus* in his Empiricks or book of approued receipts and medicines, saith, That the eating of *Basill* ingendreth lice. Contrariwise, the later writers and modern phisitions defend & maintain the vse of *Basill* as stoutly as the other blamed it: for first they auouch constantly, That Goats vse to feed thereupon. Secondly, That no man was euer known to go beside himselfe who did eat thereof. Thirdly, That *Basill* taken in wine, with a little vinegar put thereto, cureth as wel the sting of land scorpions, as the venom of those in the sea. Moreouer, they affirme vpon their knowledge by experience, That a perfume made of *Basill* and vinegre is singular good to recover and fetch them again that be gon in a swoond. Also, that in the same maner prepared, it rouseth and wakeneth those that be in a lethargie and sleep continually; yea, and mightily cooleth and refresheth them that be inflamed & in a burning heat. A liniment made with *Basill*, oile of Rosar, or oile of Myrtles in stead thereof, with vinegar, aslwageth the paine of the head. Moreouer, being laied to the eies with wine, it staith the waterish rheume that runs thither. Furthermore, comfortable it is to the stomach (as they say) for being taken with Vinegre, it dissolueth ventosities, and breaketh wind by risting vpward. Being applied outwardly, it bindeth and staith the running out or flux of the belly, and yet it causeth free passe of vrine in abundance. After the same maner it doth good in case of Jaunise and drop sicke. It repreffeth the rage of choler that moueth both vpward and downward, yea, and staith all defluxions from the stomach. And therefore *Philisio* knew what he did well enough, when he gaue it to those that were troubled with the stomachical flux. As also *Plistonius* was well aduised, in ministring it sodden, for the bloody flux, the exulceration of the guts, and the Collicke. Some there be who giue it in wine to them who run euer and anon to the close stoole, sit downe and do nothing: to those that reach and cast vp blood, yea, and to mollifie the hardnesse of the precordiall parts. Being laid as a liniment to the nurses paps, it restraineth the abundance of milk, yea and drieth it vp. There is not a better thing in the world for to be dropped into the eares of little baes and sucking children, and namely with goose-grease. If the seed be brused, and so snuffed or drawn vp into the nostrils, it prouoketh sneezing. The iuice moreouer laied as a liniment to the forehead, openeth the passages, that the rheumes or cold which lay in the head may breake away. Being taken at meat and dipped in vinegre, it mundifieth the matrice and natural parts of women. Mixed with Copperose or Virriol, it taketh away warts. Finally it setteth folk forward to venereous pleasure: which is the reason that men vse to lay *Basill* vpon the shap of mares or the Asles at the time of their couering.

CHAP. XIII.

¶ Of * wild *Basill*, *Rocket*, *Cressis*, and *Rue*.

* *Olymides*, *Dioscor.*

Wild *Basill* is endued with vertues and qualities seruing to all the purposes abouesaid: but the same is of better operation and more effectual. And these properties ouer and besides it hath by it selfe, namely, To cure the weaknesse of the stomach, and those accidents which come by often casting or immoderat vomits. The root thereof taken in wine, is singular good for the apostumes of the matrice, and against the biting of venomous beasts.

As touching *Rocket*, the seed cureth as well the venomous sting of Scorpions, as the biting of the hardy shrew. The same chaseth all vermin that be apt to ingender in mans body. A liniment made with it and hony together, taketh away all the spots that blemish the skinne of the face: and with vinegre repreffeth the red pimples whatsoeuer. The black or swert skars remaining after wound or sore, it reduceth to the former fair white, if it be applied with a beasts gal. It is said moreouer, that a potion thereof made with wine, and giuen to those who are to receiue punishment by the whip, will harden them in such sort, that they shall feele little or no smart at all by any scourging. And for seasoning of all kinde of viands, it hath such a pleasant grace in any iuice, that the Greekes thereupon haue giuen it the name of *Euzomos*. It is thought

more.

moreouer, that a fomentation of Rocket, brused and stamped somewhat before, quickeneth and clarifieth the eye-sight: it easeth little children of the chin-cough. The root boiled in water, and so applied, draweth forth spils of broken bones. As touching the vertue that Rocket hath to procure the heat of lust, I haue spoken already: yet thus much more in particular I haue to say, that if one do gather three leaues of wild Rocket with his left hand, stamp them afterward, and so giue them to drink in honied water, this drink mightily prouoketh that way.

As for Cresses they haue a contrary operation, for they coole and dull the heat of the flesh, howsoever otherwise they giue an edge to the wit and understanding, as heretofore we haue declared. Of these Cresses there be two kinds. The white is purgatiue, and the * weight of a Roman denier taken in water doth euacuate cholerick humors. A liniment thereof together with bean flower applied vnto the hard kernils called the Kings euill, is a foueraigne remedie therefore, so that a Colewort leafe be laid thereupon. The other kinde is more blackish, and purgeth the head of ill humors. It clenseth the eies and cleareth the sight. Taken in vinegar it stayeth their brains that be troubled in mind: and drunk in wine, or eaten with a fig, it is singular good for the spleene. If a man take it fasting euery morning with hony, it cureth the cough. The seed drunke in wine expelleth all the wormes in the guts: which it doth more effectually if wilde Mints be ioyned withall. With Origanum and sweet wine it helpeth those that be short winded and troubled with the cough. The decoction thereof when it is sodden in goats milk, easeth the pains of the chest or breast. Laid to as a Cerot with pitch, it resolueth pusses and biles, yea and draweth forth prickles and thorns out of the body. A liniment applied with vinegar, taketh off all spots and speckles of the visage: and if the white of an egg be put thereto, it cureth cankerous sores. Also being applied in forme of a soft vnguent to the spleene, it cureth the infirmities thereof: but if they be little infants that are troubled therewith, there must be honey also put thereto, and then is it excellent good. *Sextius* addeth moreouer and saith, that a perfume thereof burnt driueth away serpents, *Sorci*steth the poison of scorpions: as also that being brused and applied with Senvie, it is a singular remedie for the head-ache, and to make haire grow againe where it was fallen off: also, being stamped into a cataplasme with a fig, and laid to the eares, it cureth the hardnesse of hearing. Likewise, if the iuice thereof be infused or poured into the eares, it easeth the tooth-ach. Moreouer, a liniment made with it and goose-grease, scoures away the skales and dandruf, as also the scalls of the head. A cataplasme made of it and leuain, ripeneth fellons, bringeth carbuncles to suppuration, and breaketh them. With hony it mundifieth filthy corrosiue and cankerous vlcers that eat deepe into the flesh. A liniment thereof with barley grots and vinegar is good for the Sciatica and the pains of the loins: in like manner it cureth ring-worms and nettars: it mundifieth the roughnesse about the nailes, for it is of a caustick nature. The best Cresses are the Babylonian, and yet the wild are more effectuell than it in cases aboue named.

But Rue is an herb as medicinable as the best. That of the garden hath a broader leafe, and brancheth more than the wilde, which is more hot, vehement, and rigorous in all operations. There is a iuice vsually pressed out of it, being first stamped and sprinkled a little with water in the stamping, and then put vp into a box of copper or brasse, and there reserued for to be vsed as occasion serueth: this iuice taken in a great quantity is a very poison and no better, especially that which is drawne out of the Rue which groweth in Macedony about the riuer Aliacmon. But wil you heare a strange and wonderful thing? the iuice of Hemlock killeth this venomous qualitie of it. See how one poison is a countre-poison to another, insomuch as if they annoint their hands with the iuice of hemlock, who are to gather Rue, they shall not be inuened with it. And yet as venomous otherwise as Rue is, it goeth into the composition of those Antidotes which are giuen against poison, especially that Rue of Galaria. And to speak in general, there are none of these Rues, but the leaues both bruised alone and also taken in wine, serue for preseruatiues: and principally against the herb Aconite or Libard-bane, and the viscous gum of the herbe Chamæleon, which they call Ixias: likewise against deadly and venomous Mushromes taken at the mouth, whether it be by way of meat or drinke. In like maner it is singular good against the stinging of Serpents: for the very Weasels when they prepare themselves to combat with them, vse to eat this hearbe before-hand for to be secured from their venome. Auaileable it is also against the prickles of Scorpions and Hardi-shrewes, against the stings of Bees, hornets, and wasps, against the poison of the Cantharides and Salamanders, yea and the biting

biting of a mad dogge; if it be vsed in this wise, namely, to take a saucer full or acetable of the iuice and to drink it with wine: also to stampe or champ in the mouth the leaues thereof, and so lay them vpon the grieved place with honey and salt, or else to seeth them with vinegre and pitch. Folke say moreouer, that whosoever is wel rubbed with the iuice of Rue, or otherwise do but cary it about him, shall be sure ynough for being either pricked, stung, or bitten with any of those hurtfull and venomous creatures abouenamed: furthermore, that Serpents naturally doe flee from the smoke or fume of Rue when it burnes, and will not come neer vnto it: but the most foueraigne of all other, and surest in operation is the root of the wild Rue, if it be drunke with wine. And the common speech goeth of it, that the greater and speedier effect will be seene, in case forsooth one drinke it without the house, in the open aire abroad. *Pythagoras* was of opinion, That there is a distinction of sexe in this hearbe, and namely, that the male hath smaller leaues, and those of a more darke and grasse green color than the female, whose leaues are both fuller and better fed, and also of a more pleasant and gaier hew. He was perswaded also that Rue is hurtfull to the eies, but therein he was deceiued. For well it is known, that engrauers, caruers and painters, doe ordinarily eat Rue alone for to preserue their eye-sight, they take it also with bread or Cresses, without any regard whether it be the wild or the gentle Rue of the garden: by report also, many haue vsed an inunction thereof to their eies, with the best honey of Athens, and thereby cleared them quite of that muddines and mist which dimmed their sight, or else in stead of honey they haue taken breast-milke of a woman that lately bare a maiden-child: or no more but with the very pure iuice of rue and nothing els they haue gently touched the corners of the eies: others haue cured the waterie humor that hath taken a running thither, onely by applying the iuice of Rue together with Barley groats. If a man drinke Rue with his wine, he shall find ease of his head-ach: or if he doe but annoint his temples and forehead therewith, beeing incorporat with vinegre and oile of Roses into the forme of a liniment. But if it be an old and inueterat pain of the head, then would there a frontale be made of the said iuice, tempered with Barly flour and vinegre. Rue hath this vertue, to discusse and resolue all crudities and ventosities proceeding thereof, yea, and cureth the settled old paines of the stomack. It is of power to discolpilate or open the matrice: to settle the Mother into the right place when it is loose & out of frame, in case a liniment be made thereof, and laid alouer the region both of the womb and the breast. If Rue be eaten with figs, or sodden to the consumption of the one half-deale, & the decoction thereof taken in wine, it is good for the dropsie. And in that maner they vse to drinke it for the paines of the breast, sides, and loines: for coughs also and shortnesse of breath and generally for all griefes and maladies incident to the lights, liuer, and kidneies: and last of all, for the shaking cold fits in an intermitten ague. Is a man disposed to drinke freely, and to sit square at it? let him before he beginne take a draught of the decoction of Rue leaues, he shall bear his drinke well, and withstand the fumes that might trouble and intoxicat his brains. In one word, vsed ordinarily at meat, either raw, sodden, or preserued and condite any way, it is singular good for the purposes aforesaid. Boiled with Hyssope and taken in wine, it is singular for to asswage the torments of the belly: and being so prepared, it restraineth the flux of blood within the bodie: like as it stancheth bleeding at the nose, if it be stamped and put vp into the nostrills: and otherwise a collution therof to wash the mouth withall, doth much good to the teeth. Semblably, the iuice distilled into the eares, allaieth their pain; provided alwaies (as I haue often said already) that a mean and measure be kept. As for the iuice of the wild Rue, if it be tempered either with oile of roses or of baies, or els mingled with Cumin & Honie, it helpeth those that are hard of hearing, & discusseth the ringing found in the eares. Moreouer, the iuice of rue stamped and drawne with vinegre, is excellent good to be instilled or let drop from on high by way of Em brocation vpon the region of the brain and temples of the head, for the phrensie. Some put thereto wild running Thyme also and baies; therewith annointing the head and neck of the patient. Others haue prescribed it in case of Lethargie to those that can do no other but sleepe continually, for to smel vnto. And those haue giuen counsel also to them that be subject to the falling sicknesse, for to drinke the iuice thereof sodden in foure Cyaths of water, before the fit came on them; for to prevent and auoid the intollerable cold which they should endure: as also to those that be apt to * chill for cold, to be eaten with meat, raw. Rue sends out euen the bloudie wine, which is gathered into the bladder. And as *Hippocrates* is of opinion, if it be drunk with sweet thicke, and grosse wine, it causeth womens floures to come downe, it expelleth the after-birth,

* Also. Some read *Alphios*. [out of *Disco-rid*] that is, to them that are subject to the white Mor-phew, which is a kind of Leprosie, or *S. MAGNI* euil

* or, Danyel
misere me,
i. Lord haue
mercie vpon
me.

birth, yea, and the dead infant within the womb. And therefore he aduise women in trauel to haue those naturall parts annointed with Rue, yea, & to sit ouer a fustumigation made therof. *Procles* maketh a cataplasme with Rue, Vinegre, Hony, & Barly floure, for faintings, cold sweats, and tremblings of the heart. Likewise, against the torments of the smal guts, commonly called the * Iliak passion, he appointeth to take the decoction thereof in Oile, and to receiue the same in lockes of wooll, and so to be applied vnto the vpper region of the belly. Many doe let downe two drams thereof drie, and one dram and a halfe of Brimstone, as an excellent receit to bee taken by those that reach and spit vp filthy and stinking matter: but if they cast or send vp blood, they should drinke the decoction of three branches thereof in wine. It is an ordinarie practise in case of the Dysenterie or bloodie Flix, to giue it stamped first with cheefe, in wine: but they mingle therewith Bitumen, and so crum or break it into their drink, against the difficulty of taking wind. Also three drams of the seed therof is giuen in drinke to those that are fallen from a loft, for to dissolve the bruised and cluttered blood within them. *Item*, Take one pound or pint of oile, of wine one sextar or wine quart, seeth the leaues of Rue herin: that oile so prepared, is singular good for to annoint parts which are benumbed, and in manner mortified and blacke with cold. Moreover, considering that it is diuretical, as *Hippocrates* thinketh, and doth prouoke vrine; I canot but wonder at some, who giue it as a thing that staith vrin, & therefore appoint it to be drunke by those that cannot hold their water. The inunction thereof with Allum and Hony, cleanseth the dry wild scab & leprosy. Likewise with Mowl or Nightshade, hogs grease and Bulls tallow, it scoureth the Morpew, taketh away werts, discusseth and dispatcheth the Kings euil and such like tumors. In like manner it killeth the fretting hot humor called *S. Anthony's* fire, being applied to the place with vinegre, Honny, or Cerusse. *i.* white Lead: like as it cureth the Carbuncle laid too, with vinegre alone. Some there be who prescribe Lasepitium also to be joined with the rest in this liniment: but without it they cure the chilblanes & bloudy fals that be so angry in the night season. Many vse to boile Rue, & together with wax, reduce it into a Cerot, which they apply to the swollen breasts or paps of women, as also to the breaking out of phlegmatick pustules or wheales (much like to our meales or small pockes). Also being reduced into an vnguent with the tender sprigs or tops of Laurell, it is a singular remedy for the flux or fall of humors into the burse of the cods. And verily this Rue is counted so excellent an herbe in operation this waies, and so respectiue peculiarly to those parts, that it is commonly holden for a seueraign remedie to heale all ruptures, if a man take the wild of that kind and make a liniment of it and old Swines greate together. Likewise, if any bones or lims be broken, a Cerot made with the seed of Rue and wax together, is able to soulder the fracture. The root of Rue being reduced into a liniment, cureth bloudy toren eies, and restoreth to the native colour all skarres or spots that giue blemish to any part of the bodie. Among the other properties that be reported of Rue, this is one to be wondered at, considering how hot it is of nature (as all Physicians doe agree) That a bunch thereof being boiled in oile Roseate, and with one ounce of Aloe brought into the forme of an ointment, should repress their fuct, who are annointed therewith. As also, that ordinarie vse thereof at meat should disable folke as wel in the act of generation, as conception: In which regard it is prescribed vnto them that shed their seed: and vnto such as vse to dreame in their sleepe of amorous matters and the delights of Venus. But women with child must beware how they ear Rue: they especially must forbear this herbe: for I find that it killeth the yong child conceived within their bodies. Thus much for the euil that it worketh in men and women.ouer and besides al which, there is not an herbe growing in the garden that is so much vsed for the curing of 4 footed beasts, whether they be broken winded and pursue, or otherwise bitten & stung with venomous beasts; in which cases, there must be an injection made vp into the nostrils, of the juice of Rue in wine. Also, if it chance that a beast hath swallowed an Horsecleech in drinking, let it be taken with vinegre. Finally, in euery accident of theirs, let Rue be prepared and ministered respectiue vnto each grieffe, according to the manner set downe for men in the semblable case.

CHAP. XIII.

¶ of wild Mint : of garden Mint : of Penyroiall : of Nep, and Cumin.

* All this
groweth to cure
Calaminthineae.
according to Di-
oscoride.

WILD Mint is called in Latin *Menthastrum*: it differeth from the other in the form of the leaues; * for shaped it is like Basil: howeouer in color it resembles Penniroyal, which

A is the cause, that some name it the sauage Penyroiall. In the time of *Pompey* the Great, it was knowne by experience, that the leaues of wild Mint chewed and applied outwardly, cured the Leprosie: by occasion, that a certaine leper minding to disguise himselfe, that hee might not for very shame be knowne, chanced to annoint and besmeare his face all ouer with the juice of wild Mints. But fortune was better mistresse vnto him than he expected, for beyond his expectation or intent, his good hap was to be rid of his Leprosie by that meanes. The same leaues serue for a liniment against the venome of Scolopendres, and the sting of Serpents: so doe they also, if one drinke two drams of the leaues in two Cyaths of wine. Also, for to cure the prickles of Scorpions, they be vsed with salt, oile, and vinegre. But against Scolopendres, commonly they drinke the juice or broth of the decoction. Moreover, the wiser fort of people saue the drie leaues of wild Mints to be reduced into a powder, as a very com trepoison against all venome B whatsoeuer. For being strewed in the house, or burnt, the very air & perfume therof chaferth away Scorpions. A drink made therewith purgeth & putrifieth women passing wel, such I mean as be newly deliuered of childbirth: but it killeth the fruit within the womb of as many as vse it while they go with child. There is not a medicine in the world so effectuell as it is for those who are so streight winded, that they cannot take their breath vnlesse they sit vpright: for such also as in the cholericke passion, neuer giue ouer casting vpward and purging downward. It appeaseth also the paine of the loines, and easeth the gout, if it be applied to the place affected. The juice thereof is good to be dropped into eares that haue worms within them. It is vsually taken in drinke for the launise. A liniment made thereof, helpeth the kings euil; besides, it is a singular remedie for them that by a strong imagination of *Venus* in their dreames, defile and pollute themselves in their sleepe. If one drinke it with vinegre, it excludeth the star broad in the bellie. To scoure away the founled and ruffe, an Embrochation of it ad vinegre vpo the head in the Sun is counted singular.

As touching garden Mint, as the very smell of it alone recovereth and refresheth the spirits: so the tast stirreth vp the appetite to meat, which is the cause, that it is so ordinary in our sharp fauces wherein we vse to dip our meats. Being put into milk, it wil not suffer it to turn or sour, it keeps it from quailing and curding which is the reason, that they who vse ordinarily to drinke milk, take Mints therewith, for fear it should coagulate or crudle in their stomach, & put them in daunger of suffocation. Some, for the same effect vse to giue it in water or honied wine: and surely it is thought by that very propertie to hinder generation, in that it dissolueth the due consistence and thicknesse which is required in naturall seed. And yet it is a great stancher of blood indifferently in men and women: but more particularly it staith the immoderat flux of whites that many times followes women. Being taken with Amydum or starch powder in water, it restrains the inordinate flux occasioned by the imbecility of the stomacke. *Syrion* the Physician vsed ordinarily to cure the apostumes and sores of the Matrice, with Mint. Also against the obstructions & other accidents of the liuer, he was wont to giue 3 Oboles thereof in honied wine. And for them that raught vp blood at the mouth, he prescribed to take Mints in a broth or supping. The skal that little children be troubled withal, it healeth wonderfull well. It is singular to drie vp the humors that mollifie the gristly windpipe & the other instruments of the breath and voice, and when they are drie, knitteth and strengtheth them. Taken in water and honied wine, it clenseth the corrupt and putrified phlegmatick humors which be offensive to the throat and those parts. The juice of Mint is excellent for to scour the pipes & cleer the voice, being drunk a little before that a man is to strain himselfe either in the quier, or vpon the stage, or at the bar, and not otherwise. A gargarism of milk, wherein hath bin Rue & Coriander, besides mints, is passing good to bring down the swelling of the vula. Being vsed in that manner with some Allum, it restraineth the mumps or inflammation of the Amygdales: & with Hony it cureth the roughnes & furring of the tongue. Being vsed alone without any other addition, it is a proper medicin for inward convulsions, as also for the disease of the lungs. *Demonstratus* saith, that to drinke it with the juice of a Pomegranat, is a readie means to stay the yex & vomiting. The juice of greene Mints, drawne vp with the wind into the nostrils, helpeth the stinking vicers there. The herbe it selfe stamped, represseth the rage of choler that purgeth both waies vncessantly, but it must be drunk with vinegre. And in that maner it restrains all internal fluxions of blood. But applied outwardly with Barly grots to the griued place, it easeth the intollerable paine of the Iliak passion: after the same fort if it be spread and emplaistered, it allaieth

As for the Cumin of Africk, it is thought to haue a singular proprietie by it selfe for to helpe G those who canot contain and hold their vrin. The garden Cumin, if it be parched drie, brought into powder, and giuen in vinegre, helpeth the defects and infirmities of the liuer: also it cureth the dizzinesse of the head. But in case the acrimonie or sharpnesse of the vrin be such, as that it fret and moue smart in the passage, the powder hereof would be tempered in sweet wine * cuir. For the impediments of the matrice it ought to be drunk in pure wine of the grape, and withal there must be applied to the place offended, a cataplasme of the leaues vpon a lock of wool. Dried against the fire, bruised and beaten into powder, and so incorporat with oile of roses & wax, and wrought in the end to the form of a Cerot, and then applied, it abateth the swelling of the cods. But the wild Cumin is more effectuell in all the cases aboue mentioned, than that of the garden. Ouer and besides, it hath a speciall vertue together with oile, against serpents, scorpions, and Scolopendres. Take as much of Cumin seed as you may comprehend within three fingers, drink it in wine, it wil stay immoderat vomit, yea and the sick heauing of the stomacke, as if it would cast and canot. A drinke made therewith is giuen also for the colique: and to that purpose a liniment thereof is very commendable, or if it be applied hot in quilted bags, so that the same be kept swaddled down vnto the region of the gut Colon. For a woman that is giuen to the rising and suffocation of the mother, let her drink it in wine after this proportion, Three drams of Cumin to three cyaths of wine, she shall find that it will resolute those vapors and fumes which caused the foresaid maladie. With calues tallow or sewet, or with honey, if it be let drop into the eares, it cureth the sounding and tingling therein. Being applied as a liniment, with hony, raisons, and vinegre, it resolueth the blacke and blew markes remaining after I stripes. Also with vinegre alone it cureth the black spots and speckles appearing in any part of the body, if the place be bathed therewith.

An herb there is resembling Cumin for all the world, which the Greeks cal Ammi: although some there are who thinke it to be all one with the Cumin of Ethyopia. Hippocrates calleth it, the roial Cumin [of Egypt,] the reason was, no doubt, for that he deemed that of Egypt to exceed all the rest in goodnes. But most writers besides him do thinke it * an herb altogether of another nature, because it is smaller and whiter: and yet it serueth to the like vse: for at Alexandria in Egypt they put it commonly vnder their loaves of bread in the bottom crust, when they go to the ouen, and ordinarily it is occupied in the kirchen about saucies. Be it what it will, it goeth down womens moneths. Being taken in wine, together with Linseed, to the quantitie of two drams, it cureth the venomous stings of scorpions: but put thereto an equall quantitie of myrrh, it hath a singular vertue against the horned serpent Cerastes. And, like to the other Cumin before named, it altereth the colour of as many as drink of it, and makes them looke pale. A suffumigation made thereof, with raisons and rosin, mundifieth the matrice & natural parts of women. Finally, it is commonly said, That if a woman smell thereto in the very act of generation, she shal conceiue the rather by that means.

As for Capres, we haue sufficiently written thereof amongst other shrubs that be strangers: and yet it wil not be amisse to reiterate thus much, That a man must be well aduised how he taketh any outlandish Capres that come from beyond-sea: but if he wil go safely to work, let him L hardly keep him to those of Italy, for they are lesse harmelesse than the other: for if all be true that is commonly reported, whoeuer daily eat Capres, shall not be in danger either of palseie or pain of splene. The root of capres is singular good to take away the white spotted morpheue (cousin german to the leprosie) in case it be stamped, and the place affected rubbed therewith. Take the rind of the root, the quantitie of two drams, and drink it in wine, it helpeth the swelled splene: provided alwaies, that the Patient forbear the vse of baines and hot houses: for, by report, this course continued 35 daies, will cause the said splene to purge away, partly by vrine, and partly by seege. The same if it be taken in drink allaith pain in the loins, & cureth the palseie. The seed of Capres sodden in vinegre, bruised & applied to the teeth, or otherwise the root thereof chewed only, asswageth the tooth-ach. A decoction of Capres in oile instilled into the M eares, mitigate their pains. The leaues and the root newly gathered, and so applied as a Cataplasme with hony, healeth the corrosiue vlcers that eat to the very bone. Likewise the root resolues all those glandulous swellings which we name the Kings euil: and if the same be sodden in water, it discusseth the tumors behind the eares, and riddeth away the worms breeding within. It

* Indulci: hee
meaneth pas-
sum.

Ruellius takes
it for Basil
gentle.

A It cureth also the infirmities of the liuer. The manner is to giue the same in vinegre and honey for to chase away the vermin engendred within the guts. Boiled in vinegre, it is singular for the cankers or exulcerations within the mouth: howbeit, all authors doe accord, that they bee not good for the stomacke.

Touching Louage, which some call Panax, it is * holefome for the stomack. Likewise a proper medicine it is for convulsions and ventosities. To conclude, there are some who name it Cunila Bubula, as I haue before noted, but they be deceiued.

* Vile: nam
concollium
inuat, Ex
Dioscor.

CHAP. XVI.

B ¶ Of the wilde Origan Cunila Bubula: of the Bastard Marjoram, named Gallinacea
Cunila, or Heracleoticum Origanum: of the tender Cunilago: of Rosemarie:
of Garden Sauorie or Cunila, and that of the mountaines.

O Ver and besides the garden Sauorie, there be many kinds of Cunila known in Physicke: and first that which is called Bubula, and hath seed like to Peniroiall, being either chewed in the mouth or applied outwardly, it is a good wound-hearb, so that it be not remoued but euery five daies. Taken in wine, it is singular against the poisonous sting of serpents, in case the hearbe it selfe be stamped, and laid withall vpon the fore place: and verily it is an ordinarie thing, to rub therewith well and thoroughly, the wounds that they make. Semblably, the C Tortoises, against the time that they should fight with Serpents, vse this hearbe in manner of a defensatiue, & take themselves well armed against their enemie: which is the reason, that some giue it the name of Panax. Being dried, it assuageth the pain of tumors, and cures the accidents that befall to the priue members of men: or if the leaues be but stamped, they haue the like effect. And in one word, the operation thereof is excellent and wonderfull, if it be vsed in wine.

Another Cunila or Sauorie there is, which our countrey men call in Latine Gallinacea; the Greekes name it Origanum Heracleoticum. If it be braied and salt joined thereto, it is soveraigne for the eyes: it helpeth the cough also, and correcteth all faults of the liuer. If a thicke growell or few be made thereof, together with floure, oile, and vinegre, so tempered as it may be supped, it cureth the pleurisie or paines of the sides: but aboue all, it is singular for the stinging of Serpents.

D A third kind there is, which the Greeks tearme the male, but we in Latin * Cunilago: a stinking smell it hath with it, a woodie hard root and a rough leafe: but it is generally said, that the operations thereof be more effectuell, than of any other kind. It is verily thought, that if a man cast an handfull thereof from him into any part of the house, all the moths and such like vermin will gather about it. But to come to particulars, It hath a singular power against Scorpions if it be taken with water vinegre. Also if a man or woman take 3 leaues thereof, and rub his bodie thoroughly with it and oile together, there is not a Serpent so hardie as dare approach neare such a bodie so perfumed. Contrariwise the Cunila, which is named Mollis, [i. e. Soft] hath leaues and branches more hairie than the former, and those sharpe pointed like prickles. This hearbe if a man rub betwene his fingers, resembleth honey in smell, and will sticke fast too in manner of honny. Another sort there is of Cunila, which we, for the smell that it hath of Frankincense, call Libanotis. But both these, the one as well as the other, taken in wine or vinegre, cureth the biting and sting of Serpents. If they be bruised or stamped into powder, and so put into water, they kill all the fleas in the place where the said water is cast or spinckled. As for the garden Sauorie, it also hath many good properties: The iuice thereof with oyle of roses distilled into the eares, is very comfortable vnto them. The hearb it selfe taken in drink, helpeth those who are stung with venomous Serpents. This Sauorie oftentimes doth degenerat into a bastard kind, named Mountain Sauory. Like it is to wild running Thyme, and is effectuell also against the payson of serpents. It prouoketh vrine, and purgeth women newly deliuered, if haply they haue not sufficient voidance. Singular it is for to help digestion, and stirreth vp appetit to meat wonderfully. In summe, as well the gentle Sauorie as the wild, is passing wholefome for crudities in the stomacke, if one spice his morning draught therewith fasting. It is vsed also to very good purpose in dislocations and members out of joynt: with barley meale, water, and vinegre, it is excellent for the stinging of waspes, and such like pricks. As touching the other kinds of Libanotis or Rosemarie, write I will more fully in due place.

* Flica-banc:

¶ Of *Piperitis* and *Origanum*: of *Onitis*-*Praſium*: of *Tragoriganum*, and *Heraclium*: of *Lepidium* and *Gith* or *Melanthium*: of *Annife*.

* Ginney pep-
per.

Piperitis or Calecut Pepper-wort (which before we called * *Siliquastrum*) being taken in drinke, is very good for the falling sickneſſe. *Caſtor* hath deſcribed it after another manner, namely, to be an herb riſing vp with a long red ſtem, thicke ſet with joynts or little knees; bearing leaues reſembling thoſe of Lawrel; with white ſeed and the ſame ſmal, carying with it the taſt of Pepper. The vertues of which hearb be theſe; To help the gumbs and teeth, to make a ſweet breath, and withſtand ſoure and ſtinking belches.

Canila.

Origan or *Orgament*, which in taſt (as we haue ſaid) reſembleth * *Sauery*, hath many kinds, & all medicinable, for there is one ſort therof ſirnamed *Onitis* or *Praſium*, not vnlike to hyſſope: a peculiar propertie this hearb hath being drunke in warme water, to quiet the gnawings in the ſtomacke, and to concoct the crudities there: but taken in white wine, to cure the venomous pricks of Spiders and Scorpions. The ſame applied outwardly with oile and vinegre vp-on wood, is ſingular good for diſlocations, diſjointures, ſpraines, contuſions, and bruifes.

As for *Tragoriganum*, it is more like vnto wild creeping Thyme: it hath vertue to prouoke vrin, to diſcuſſe and reſolue all tumors or ſwellings. And more particularly, moſt effectually it is for them that haue drunke the gum of *Chamelæon*, called *Ixia*: alſo againſt the Vipers ſting: beſides, for the ſtomacke that belcheth ſoure, and for the midriffe and precordiall parts. It is an approved medicine for the cough, the phrenſie, and inflammation of the lungs, being with honey reduced into the forme of a Lohoch, for to be ſucked downe leiſurely.

Touching the *Origan* named *Heraclium* or *Heracloticum*, the ſame alſo is diuided into three ſorts: For the firſt is of a blacker & more duſky green, with broader leaues: alſo than the reſt; and beſides is glutinous and will cleaue to ones fingers. A ſecond ſort hath ſmaller leaues, ſofter it is & more tender in hand, not vnlike to *Majoram*; and this kind ſomewould rather call *Praſium*. The third hath leaues of a mean bignes between the other two, not ſo large as the one nor ſo ſlender as the other, but not ſo forcible in operation as either of them both: but to return againe to our former *Origanum*: the beſt is that which groweth in Candy; for the ſame hath a pleaſant and ſweet ſent beſides: the next in goodnes is that which cometh from *Smyrna*: then after it, is the *Origan* that is brought from *Heraclæa*: but that which is ſirnamed * *Onitis* is ſimply the beſt of all others to be taken in drinke. Howbeit, the uſe generally of them all in com-
mon, is to chaſe away ſerpents: by way of decoction or portage made thereof, to cure them that be already ſtung or wounded by them: being taken in drinke, to moue vrine: and, together with the rooſe of *Panace*, to helpe ruptures, conuulſions, and ſpafmes: ſodden in certaine *Acetables* with figs or hyſſope, to the conſumption of a ſixt part, to cure the dropſie. At the entrance into the ſtoue or hot-houſe if it be taken good it is againſt the ſcab, the itch, & the wild ſkurf. The iuice with milk, is dropped into the ears, and that with very good ſucceſſe. It helpeth alſo the mumps or inflammation of the *Amygdales* and *Vvula*; likewise the vlcers in the head. The decoction thereof taken with lie aſhes in wine, is a counterpoiſon to kill the venom of *Opium* and *Platre*. The meaſure of one *Acetable*, looſeneth the belly. A liniment made thereof, recovereth the native colour of the blacke and blew marks remaining after ſtripes. With hony and nitre, it aſſuageth the paine of the teeth if they be rubbed therewith; and beſides maketh them looke faire and white. It ſtauncheth bleeding at the noſe. A decoction made therewith and barley meale, reſolueth the ſwelling kernells and inflammation behind the eares. The powder being incorporat in honey and gall-nuts, doth ſmooth and cleare the ruſtineſſe of the windpipes, occaſioned by a rheume. The leaues applied in manner of a cataplaſme with honey and ſalt, occaſioned by a rheume. If the hearbe be ſodden with honey and ſalt, and ſo taken by little and little, it doth cut, extenuate and make ſubtile, groſſe fleagme, eſpecially if blacke melancholy be bedded therein. Stamped, and inſtilled into the noſthrills with oile, it cureth the ſaundife. Such as be ouerwearyed and tired with extreme trauell, find much alieuation and eaſe by being rubbed and annointed all ouer with a liniment made thereof, with this caveat, That they come not ſo neer as to touch the belly with it. A plaſtre made with it & pitch & applied, healeth the angry bloody-falls & chilblanes. Bruiſed with figs, it ripeneth felons. A pulſes made with it, with oile,

* Bugle, or
Stachus dra-
bica.

A oile, vinegre, and barley meale, ſoftneth and reſolueth the Kings euill. A liniment made therewith and figs together, aſſuageth the paine of the ſides. Being bruised and reduced into a liniment with vinegre, and ſo laid to the priuy parts, it reſtraineth the flux of blood thither; and yet it hath a propertie to euacuate the reliques of blood in women newly brought to bed, who ought to be purged.

As touching *Lepidium* [*i. Paſſe-rage*] it is to be ranged among the burning and causticke medicines: by which faculty that it hath, and by bliſtering the ſkin, it taketh away any ſpot or blemish in the face; yet ſo, as the exulceration which it cauſeth, may be ſoone helped and ſkinned again with a ſalue of wax and oile of Roſes. By the ſame means it ſerueth to clenſe the leproſie and wild ſcabs, which it doth alwaies with eaſe and expedition, as alſo to ſmooth the cicatrices or ſcars after vlcers. Moreover, it is commonly ſaid, that if it be tied faſt vnto the arme on that ſide where the teeth do ake, it taketh the pain quite away.

B Gith or *Nigella*, the Greeke writers ſome name *Melanthion*, others *Melaſpermon*: the beſt is that which is blackeſt, and beſides of quickeſt ſent. A ſingular remedie it is for the fores and wounds occaſioned by venomous ſerpents and ſcorpions eſpecially, if a liniment be made of it, vinegre and hony mingled together. I find alſo, that if it be burnt, the very ſmoke and fume of it will chaſe away ſerpents: but particularly againſt the poiſon of venomous ſpiders, a dramme thereof is ſufficient to be taken in drinke. Being bruised and knit in a linnen cloath, and ſo ſmelled vnto, it reſolueth the poſe, or breaketh the cold which ſtuffeth the noſthrills. Applied as a liniment with vinegre to the forehead, or inſufed into the noſthrills, it eaſeth the head-ache. And if it be ſovled with the oile of the ſloure de-lis rooſe, it ſtaith the wateriſh humors that fall into the eies, and abateth their ſwellings. The decoction thereof in Vinegre cureth the rooth-ache, if a colluſion thereof be made and the mouth waſhed therewith. Being ſtamped and ſo applied, or but chewed in the mouth, it healeth the cankers or exulcerations within. Likewise a liniment made of it and vinegre clenſeth the leproſie, and the hot red pimples breaking out in the ſkin. If it be taken in drinke, with ſome addition of nitre, it eaſeth the difficulty of breathing in ſuch aſ blow ſhort. It helpeth all hard ſwellings, and old ſeſtred impoſtumes or biles, if they be annointed therewith. If a woman be deſirous to haue ſtore of milk, let her eat and drinke thereof continually euery day. As touching the iuyce of Gith, it is drawn & gathered after the like manner as *Henbane* iuice. And ſemblably taken in any great quantity, it is a very poiſon: which

C if it be ſovled with the oile of the ſloure de-lis rooſe, it ſtaith the wateriſh humors that fall into the eies, and abateth their ſwellings. The decoction thereof in Vinegre cureth the rooth-ache, if a colluſion thereof be made and the mouth waſhed therewith. Being ſtamped and ſo applied, or but chewed in the mouth, it healeth the cankers or exulcerations within. Likewise a liniment made of it and vinegre clenſeth the leproſie, and the hot red pimples breaking out in the ſkin. If it be taken in drinke, with ſome addition of nitre, it eaſeth the difficulty of breathing in ſuch aſ blow ſhort. It helpeth all hard ſwellings, and old ſeſtred impoſtumes or biles, if they be annointed therewith. If a woman be deſirous to haue ſtore of milk, let her eat and drinke thereof continually euery day. As touching the iuyce of Gith, it is drawn & gathered after the like manner as *Henbane* iuice. And ſemblably taken in any great quantity, it is a very poiſon: which is a thing to be maruelled at, conſidering that the ſeed thereof ſeaſoneth loaves of bread, & giueth a moſt pleaſant reliſh to them. Moreover, the ſeed of *Nigella* clenſeth the eies, prouoketh vrin and the monthly terms in women: yea and more than ſo, I reade, that thirty grains thereof tied in a linnen cloath, and applied to a woman newly deliuered, will draw down the after-birth. They ſay alſo, that if it be ſtamped in vrin and laid to the agnells or cornes of the feet, it cureth them: as alſo that the ſmoke killeth gnats or any other flies.

As for the herb *Annife*, if it be drunk with wine it is a counterpoiſon againſt ſcorpions. And *Pythagoras* hath giuen a ſpeciall praiſe and commendation to it both raw and boiled, as to ſew other herbs the like: for be it green or dry, it ſerues as well for ſeaſoning of all viands, as making all ſauces, in ſomuch as the kitchen cannot be without it. Ouer and beſides, when bakers ſet into the oven, they put *Annife* between the bottom of their loaves and the peelee. And for to commend wine, Vintners uſe to put it into their *Hippocras* bag, through which they ſtrain *Hippocras* and other aromaticall wines: and indeed with bitter almonds, it giueth a pleaſant and delicate taſt vnto any wine whatſoeuer. If one chew it euery morning vpon an empty ſtomack faſting, together with the ſeed of *Smyrnum* and a little hony, it maketh the breath ſweeter, and taketh away all ſtinking ſauours about one; provided alwaies, that the mouth be preſently waſhed with a colluſion of wine. It cauſeth one to look freſh and young, if it be hanged about the bed vpon trauers or curtain, or otherwiſe ſticked to the pillow or bolſter, ſo as ſolke may haue the ſent thereof in their noſthrills while they lie aſleep, it riddeth them of troubleſome dreams and fantaſtical viſions. It procureth a good ſtomack to meat: for ſo our idle, nice, and delicate wantons, ſince they haue giuen ouer exerciſe and trauell (which ſhould get them an appetite & ſtomack to their viſuals) & betaken themſelues to ſit ſtil and do nothing, haue deuifed this artificial means among others, & haue recourſe to *Annife*: in which regards and for theſe cauſes, ſome haue giuen it the name of *Anicetum*. The beſt of all cometh from *Candie*: the next to it is that of *Egypt*; and indeed this ſerueth in ſtead of *Loveach* in all ſauces. If a per-
fume

* To wit, by
raising a bli-
ſter, and gi-
uing iſſue.

fume thereof be drawn vp into the nose, it appeaseth the head-ache. *Tollas* saith, that the Annise G root bruised and stamped together with Wine, and so applied, stayeth the flux of waterie and weeping eies. The herb it self, with an equall quantitie of saffron and wine, yea, or braied alone with barley grots, restraineth all great fluxions and distillations: and the same composition applied to the eyes, drieth out any thing that hath fallen into them. A liniment made therewith and water together, consumeth and cureth the Polypes or cankerous vlcers within the nostrils. A collution of it in vinegre, with honey and hyssop, vsed as a gargarsine, asswageth the squinancie. Tempered with oile of roses it is soueraigne for the eares to be instilled into them. Being taken dried and parched at the fire, it clenseth the brest of the viscous and tough flegme there gathered; but if it be incorporat with honey it doth the deed the better. But would you learn for the cough a soueraign lohoch or confection? Take one Acetabell of Annise, and fifty *H* bitter nuts wel clenfed and blanched: stamp these all together in a mortar, and with hony reduce them into the consistence of an Electuarie. And yet there is one Composition more for this purpose, and of all other the easiest and soonest made. *Recip.* of Annise three drammes, of Poppy seed two dramms, temper these with hony, & for three mornings together take the quantitie of a bean fasting. And this confection is singular besides against sourc ristings or belching: and therefore it cureth the ventosities which puffe vp the stomacke: it asswageth the torments and wrings of the guts, and represseth the continual flux proceeding from the weaknesse of the retentive facultie in the stomacke. But to return againe to simple Annise seed, a drinke made with the decoction thereof, or the very smell taken vp into the nose, stayeth the troublesome yex or hocquet. The decoction of Anise leaues doth digest and resolu all crudities. The iuyce drawne from it when it is folden with parsley, if it be smelled vnto, stineth immoderate sneezing. Moreover, Annise taken in drinke, procureth sleep, expelleth the stone and grauel, stineth vomits, and resolueth the tumors in the precordial parts, caused of windinesse. Further, it is a most soueraign medicine for the diseases in the brest: comfortable also to the neruous parts, membranes, and ligaments, wherein the muscles of the body be either inclosed or tied and vnited together. The iuyce of it being boiled with oile, and so dropped or instilled into the head, is good for the pains thereof. It is thought that there is not a better thing for the belly and the guts than Annise: and therefore it is giuen ordinarily (if it be first parched and roasted against the fire) in case of the bloody flux and exulceration of the guts: also for the inordinate profers to the siege, & rising from it without effect or any thing discharged. Some put thereto Opium *K* also, and prescribe to make three pills thereof to the bignesse of a Lupine seed, and to take them euery day dissolved in a cyath of wine. *Diachnes* vsed commonly the iuyce of Anise, to mitigat the pain of the loins: to giue also the seed beaten to powder with mints in wine, for the dropsey and the desfluxion stomachicall: but the root he thought to be passing good for the kidneyes, vsed and taken in that manner. *Dalio* that famous Herbarist was wont to apply Annise and Parsley together in forme of a cataplasme, to women in labour, for better speed in child-birth: also for the pain of the Mother, yea, he would giue it also to drinke with Dill, vnto women when they cried out in trauell. He applied it also green, with barley grotes in manner of a liniment, to the head, for to stay and settle the brains of phrentique persons. And being so prepared, he found it singular good for young infants subiect to the Falling-sickenesse, or troubled with crampes and contractions of sinewes. As for *Pythagoras* verely, he saith confidently, That whoeuer doe but hold this hearbe in his hand, hee shall not be surprised with a fit of the Falling-euill: and therefore he aduise men to sow good store of it in their gardens about their houses, to be ready euer at hand. He affirmeth moreover, that women in labour, if they smel thereto, shall haue more speedy and easie deliuerance. Hee giueth counsell besides, That immediately after the childe is borne, the mother should drinke a growell made with it and some barley grotes strowed among. *Sosimenes* the Physitian was wont to mollifie and resolu all hard swellings with Annise & Vinegre: he vsed also to giue the decoction thereof in oile, with some sprinckling of Nitre among, to those that felt wearinesse in their limbs. Moreover, hee assured trauellers and wayfaring men, that if they drank the seed thereof, they should find present help if they were tired. *Heraclides* gaue ordinarily of the seed as much as might be taken vp with three fingers, together with two oboles of Castoreum, in honied wine, for the horing & inflation of the stomacke: semblably, for the puffing vp and swelling of belly and guts. Also, to those that were streit winded, & could not take their breath but sitting vp right, he ministred the like pro-

A proportion; to wit, as much as three fingers would contain, with equall quantitie of Henbane seed, in Asses milke. Many Physitians giue counsell to those that would vomit lustily, for to drinke in water as they sit at supper, an acetabell thereof and ten leaues of Baies, bruised and beaten into powder. If Annise seed be chewed, or applied hot in forme of a liniment, yea, or taken as a drinke in vineger and hony, together with Castoreum, it helpeth the rising of the mother and the danger of suffocation thereby. If a woman in child-bed presently vpon her deliuey, drinke it with cucumber seed & line-seed together, of equall quantity, namely, as much as may be held between 3 fingers, in three Cyaths of white wine; it will settle the lightnesse of the braine, and stay the dizziness of her head. *Teopolemus* prescribed for feuers quartane, as much Annise seed as three fingers might comprehend, with the like quantity of Fennell seed to be taken in vineger and one Cyath of Honey. A liniment made with Annise and bitter nuts, allaieth the grievous pains of the gout. There be who are of opinion, That it hath a speciall vertue and propriety to resit the poison of the Aphis. Certain it is that it prouoketh vrine, allaieth thirst and the appetite to drinke, yea, and solliciteth to carnal lust. Taken in wine, it gently putteth forth a kind sweate. Moreover, it keepeth cloths and apparel from the Moth. Generally, the fresher and newer alwaies that it is, and the blacker that it looketh, the more effectual it is found to be. Howbeit, this one discommodity it hath, That it is an enemy to the stomacke, vnlesse haply it bee pestered with ventosities.

CHAP. XVIII.

¶ Of Dill: of Sacapenum, and Sagapenum. Of Poppy both white and black. The manner of gathering and drawing iuyce out of herbes. Also of Opium.

Dill also hath a property to dissolue ventosities, to break wind and cause risting; also to assuage any wrings or torments of the belly, & yet it stineth the flux. The roots being reduced into a liniment with water or wine, restraineth the flux of watering eies. A perfume made of the seed as it boileth, receiued vp into the nostrils, stineth the yex. Taken as a drinke in water, it concocteth crudities, and appeaseth the pain of windinesse proceeding from thence. The ashes of it burned, raise vp the Vuula in the throat that is fallen. Howbeit, Dill dimmeth the eie-sight, and dulleth the vigor of genitall seed.

D As for our Sacapenum here in Italy, it differeth altogether from that which grows beyond sea. For the outlandish kind, resembling gum Ammoniack, is called Sagapenum. Good it is for the pleurificand pain of the brest, Convulsions or Spasmes, and old settled Coughes; for those that reach vp filthy and rotten matter; for the tumors of the midriffe and precordial parts. It cureth the swimming and giddinesse of the head, the shaking and trembling of the joints, the crampe or convulsion that draweth the neck backward, the great swelled spleens, the pain of the bones, and all shaking and quivering colds. A perfume made therewith in vineger, if a woman smel vnto, it helpeth the Mother that is ready to stop her wind. As for the other accidents, it is both giuen in drinke, and also rubbed into grieved parts with oile. It is thought to be soueraign also against poysoned drinckes giuen by Witches and Sorcerers.

Touching garden Poppie and the severall kinds thereof, I haue written already: but besides E them there be other sorts also of the wild, whereof I promised to treat. Meane while, the heads of the foresaid garden white poppy, if they be bruised whole as they grow with seed & all, and so drunk in wine, do procure sleep. The seed it selfe alone cureth the Leprosie. *Diagoras* giueth counsell to cut the stem or stalk of the blacke Poppy when it beginneth to strout and swell toward the flowering time, out of which there wil issue a certaine iuyce called Opium: but *Tollas* aduise to make that incision when it hath bloomed, and to chuse a faire cleare day for it, & that houre of the day when as the dew thereon is dried vp. Now would they haue them to be cut vnder the head before the bloom; but in the very head, after it hath don flourishing; and verily, there is no other kind of herb wherein the head is cut, but this only. The said iuyce of this herbe as well as of all other is receiued in wooll: or else if it run but in small quantitie, they gather it F with the thumbe nail, as the maner is in Lettuces: but the morrow after the incision, so much the more vigilant they must be to saue & gather that which is dried: and in very deed the iuyce of Poppy commonly runneth out in great abundance, & gathereth into a thicknesse: which afterward is stamped and reduced into little trofches, and dried in the shade. Which iuyce thus drawne

drawne and thus prepared, hath power not only to prouoke sleep; but if it be taken in any great quantity, to make men dye in their sleep: and this our Physitians call Opion. Certes, I haue knowne many come to their death by this meanes; and namely, the father of *Licinius Cecinna* late deceased, a man by calling a Pretor, who not able to indure the intollerable pains and torments of a certain disease, and being weary of his life, at Bilbil in Spaine, shortened his owne daies by taking Opium. By reason whereof, Physitians are growne to great variance, and be of contrary opinions as touching the vse of the foresaid Opium. *Diagoras* and *Erasistratus* contrary opinions as touching the vse of the foresaid Opium. *Diagoras* and *Erasistratus* condemned it altogether as a most deadly thing, & would not allow that it should be so much as injected or infused into the body by way of clyster, for they held it no better than poison: and otherwise hurtful also to the eies. *Andreas* saith moreover, That if Opium doth not presently put out a mans eies & make him blind, it is because they of Alexandria in Egypt do sophisticat it. But in processe of time the later & modern Physitians did not vtterly reject it, but found cat it. But in processe of time the later & modern Physitians did not vtterly reject it, but found a good vse therof, as may appeare by that noble and famous Opiat confection called *Diacodium*. Moreover, there be certain ordinary trofches made of Poppy seed beaten into powder, which with milk are commonly vsed by way of a liniment to bring sicke patients to sleepe. Likewise with oile Rosat, for the head-ach: and with the same oile they vse to drop it into the eares for to mitigate their pain. Also a liniment made therof with breast-milk is singular good for the gout: In which sort there is a great vse of the leaues also to the same purpose. And being applied as a cataplasme with vineger, they help *S. Antonies* fire, and all sorts of wounds. For mine own part I would not haue it in any case to enter into Collyries, much lesse vnto those medicines which be ordained to driue away ague fits, or into maturatiues, no nor to go among other ingredients into those remedies which are deuised to stay the flux that commeth from the stomack. Howbeit, in this case last specified, many giue the black Poppy with wine. Al garden Poppies grow rounder in the head than the wild: for these beare a head longer & smaller, howbeit (for any vse) of greater operation than those of the garden. For the decoction therof taken as a drink, procureth sleep to such as be ouer watchfull: so doth a fomentation thereof, if either the visage bee sprinkled, or the mouth washed therewith. The best Poppies be they that grow in dry places and where it raineth seldome. When the heads and leaues both be sodden & stamped, the iuice that is pressed from them, Physitians call *Meronium*: and it is far weaker and duller in operation than Opium. Now to know which is good Opium indeed, the first and principal trial is by the nose; for the true Opium is so strong, that a man may not indure to smell it: the second proof is by fire: for the right Opium will burn cleare like a candle; and when it is put forth yeeldeth a stinking sent from it in the end: which signes are neuer to be found in that which is falsified and sophisticat; for this that is not right, will not so soon take a light fire, and besides, is readie oftentimes to go out. There is another experiment by water: for the good and pure Opium being put into water, sendeth forth a certaine mist from it like a cloud, which floteth euen aloft: whereas the corrupt and depraued Opium gathereth into blisters and bladders, and so bubbleth vpon the water. And yet there is one way more admirable than the rest to try good Opium euen by the Sun-shine in a Summers day: for if it be such as it ought, it wil sweate and resolute into a thin liquor, like as when it came first out of the plant. To conclude, *Mnesicles* is of opinion, that the best means to keep and preserve Opium, is to lay it in Henbane seed: but others thinke it better to let it lie among beanes.

CHAP. XIX.

Of the wandering Poppy, and the horned Poppy. Of Glaucium or Paralium. Of Heraclium or Asarabum. Of the composition named Diacodium, and of the Tithymal.

In a middle nature betwene the garden Poppy and the wild, is to be ranged a third kinde: which because it commeth vp in corne fields, but yet vnknown and of the own accord, we haue called *Rhoeas*, and wandering Poppy. Some there be, who so soon as it is gathered, chew both herbe and head all whole as it grew, and so eat it. Fiue heads of this Poppy being sodden in three hemines of wine, and so taken in drinke, do both purge the belly, and also bring the patient to sleep.

Of these wild Poppies there is one kind called in Greek *Ceratitis*, of a dark or dusky green, growing vp with a stalke a cubit high; with a grosse root, couered with a thicke rinde; the heads

A heads or cups wherein the seed lieth, bend like vnto a little horn. The leaues are lesse and slenderer of this Poppy than of any other wild. The seed also is smal, ripe and ready to be gathered in corn harvest; which being taken in drinke, to the quantity of half an Acetabulum in honied wine worketh downwards and scoureth the belly. The leaues being stamped with oyle, and so applied, heale the haw in horse eies. The root taken to the quantity of an Acetabulum, and sodden in two sextars of honied wine, vntill halfe be consumed, is giuen in drinke for the infirmities of the loins and liuer. The leaues applied as a cataplasme with hony, healeth Carbuncles. Some call this kind, *Glaucium*, others *Paralium*; for it growes within the aire of the sea, or els in some brackish place standing much vpon Nitre.

Another kind of these wild Poppies is called of some *Heraclion*, or of others, *Aphron*, with B leaues resembling * Sparrows, if a man look a far off. The root runneth very ebbe and superficially vnder the green sord, and the seed seemeth charged with a certaine froth or foam. Here with linnen cloths in summer time vse to be bleached, and to get a bright white colour. This herbe beaten in a mortar to the quantity of one Acetabulum, and taken in white wine, helpeth the falling sicknesse; for it causeth the patient to vomit. This kinde of Poppy is the principall ingredient or Basis to the confection named *Diacodium* or *Arteriacum*. The composition or making whereof ensueth in this manner: Take of this Poppy heads, or of any other of the wilde sort, 120: let them lie in soke or infused two daies together in three sextaries or halfe a gallon of water: and in the same water boyle them wel. When this decoction hath passed through a strainer or jelly bag, seeth it a second time with hony vp to the height or consistence of a Syrrup (that is to say, vntill halfe be consumed away) ouer a soft and gentle fire. Herunto the modern Physicians which came after, put too, of Saffron, of Hypocistis, Frankincense, Acacia, of each six drams, and in the end, of grosse cuit of Candy one sextar. But this later composition serued onely for a shew and vaine ostentation; for the simple and plain making of it in old time with Hony and Poppy, and no other addition besides, was as wholesome and profitable as this. But to come again to our wild Poppies: there is a third kind thereof named *Tithymalos* (which some call *Mecon*, others *Paralion*) carrying a smooth leafe and a white, with a head of the bignesse of a Bean. The time of gathering these Poppies, is when the grape is in the floure: & then the manner is to dry them in the shade. The seed if it be taken in drinke, the quantitie of halfe an Acetabulum in mead or honied wine, purgeth the belly. But what Poppy soeuer it be, the head either green and fresh, or dry, if it be applied as a liniment to the eies, represseth the flux of waterish humors falling to them, and mitigateth their inflammations. If Opium be giuen in pure wine somewhat allaid, presently after the Scorpion hath stung, it is a counterpoison. Howbeit, some there be who attribute this vertue only to the blacke Poppy, namely, if either the heads or leaues be bruised and reduced into powder.

CHAP. XX.

Of the wild Purcellane or Peplum. Of Coriander and Orach.

There is a wild Purcellane also, which they call *Peplum*: more effectual, though not much, E than the garden Purcellane; for there be strong and wonderful properties reported thereof for sundry vses. First it is holden for certain, that this herb if it be eaten as meat, dulleth the poison of venomous arrows, of Serpents also called * Hemorrhoids and * Presters: and being laid to the hurt place, draw forth the said poison. The iuice also of this herb pressed forth and drunk in wine cuit, is a remedy for those that be poisoned with Henbane. Now if the herb it selfe is not to be gotten, the seed hath the like effect. Moreover, it is thought to be singular good for the aquonities gathered within the body, and the diseases caused thereby, as dropies, &c. for the head-ach; for rheumatick vicers also, if it be bruised and applied with wine. Al other sores likewise it healeth, if it be chewed and laid too with honey. After the same manner prepared, it is good to be applied to childrens heads for to temper the heat of the brain, as also to their nailes when they beare out more than they should. For al vehement distillations of watery humors into the eies, as well of old folke as small infants, it is counted singular; for to be applied to the forehead & temples, together with Barly groats: but if it be laid vnto the very eys, then would the same be tempered with milk and hony. Now if it chance that the eies be ready to fall out of the head, the leaues stamped with the shales of Beane cods, and applied thereto,

* *Siruthio similis, ex Diosc.* is like to *Siruthium*: wherein *Pliny* is foolishly ouersent to translate it for *serē presentantibus*: because that *serē* significeth the herb *Siruthium*, (a Fullers weed) and the bird called a Sparrow: vpon which one absurdity, more follow still to maintaine the same, as commonly it is scene. For that which followeth of bleaching, agreeth to the foresaid hearbe in some sort.

* So called for that they cause flux of Blood. * Otherwise named *Dipsades*, because they set one into a burning fire, as it were, and an vnquenchable thirst whereupon they tooke both their names.

is an excellent remedy. A cataplasme made of it, with Barly groats, salt, and vineger, cureth an-
gry wheales and blisters that break out in the skin. The same being chewed raw, represseth the
cankers in the mouth, and the smelling of the gums: likewise, it assuageth the tooth-ache. The
juice of it being well foddren, cureth the sores of the Amygdalae, if the mouth & throat be wa-
shed therewith. And some put to this collation a little powder of the stone Murra. And no mar-
vell, for the very chewing only thereof doth fasten the teeth that be loose in the head. It doth
mitigate the inconuenience of crudity and indigestion, it strengtheneth the voyce, and putteth
by thirst. A cataplasme made therewith, hauing gal-nuts and linc-seed among, of equal quanti-
ty, allayeth the pains and cricks in the nape or chine of the neck. Tempered with hony & white
fullers clay, it is singular for the accidents that befall to womens breasts. The seed taken with
honey, is very wholsome for such as be short winded. Eaten in sallads, it strengtheneth the sto-
mack. If it be laid as a cataplasme [to the belly and Hypochondriall region] it allaieth the heat
of ardent and burning feauers; yea, & in other cases the very chewing of it cooleth the heat of
the guts and entrails. It staith vomits, eaten in vineger: or taken in drinke with cumin, it is good
for the bloody flux and other inward imposthumes and filthy sores. Being first foddren and then
eaten, it is singular for those that strain hard vpon the stoole, and norwithstanding many prouo-
cations and profers, deliuer nothing. And whether it be taken in meat or drinke, it is a soue-
raigne thing for the falling sicknesse. For a shift or immoderat course of womens termes, it is
giuen with great successe, the quantity of one acerbale measure in wine cuit. A liniment made
with it and salt, is good for the horrgout & *S. Antonies* fire. The juice if it be drunken, helpeth
the reins and the bladder. It expelleth wormes and such like vermine out of the belly. A good
mitigatiue, it is of pain, if it be applied as a cataplasme to wounds with oile and Barly groats.
It mollifieth the stiffenesse and hardnes of the sinews. *Metrodorus* in his book intituled the **A*-
bridgement or Breuiary of those roots that are to be cut vp or gathered; gaue counsell to giue
this herb to women, newly laid vpon child-birth, for the immoderate and excessiue purgation
that many times followeth them. It cooleth the heat of lust, and represseth dreames of wanton-
nesse. I know my selfe a grand signior in Spain, father vnto a great personage, and one who had
bin advanced to the dignity of a Pretour, who carried euer about him a root of this Peplium
hanging at his neck by a lace or smal thred, & that for the intollerable pains of the Vvula, wher-
to he was subiect; and neuer would he leaue it off, but when he went into the stoue or bayne:
whereby he found such ease, that he was neuer troubled afterward with the said dis ease. Moreo-
uer, I haue read in some writers, That if the head be annointed or well rubbed therewith, a man
shall not for a yeare together find any inconuenience of a rheum distilling from the brain: how-
beit, it is thought that the vse thereof will make the eyes dim.

Concerning Coriander, there is none found growing wild of it selfe without sowing by the hand. But certaine it is, that the very best cometh out of Egypt: a speciall and peculiar vertue it hath against one kind of serpent or venomous worm, which they call Amphisbæna [for that it seemeth to haue an head at both ends] whether it be inwardly taken in drinke, or outwardly applied. It healeth also other wounds; It cureth the night-foes or chilblains, the red angry pimples also, if it be but only stamped and layd too. There is not a swelling or apostemation gathering to an head, but a cataplasme made with it, with hony and Raisins, either resolueth them, or quickly bringeth to maturation. If it be no more but stamped with vineger, it easeth the pufes and biles that breed commonly in the ordinary emunctories. Three graines of Coriander seed some prescribe to be eaten before the acceffe or fit of a tertian ague: or more than three to be rubbed vpon the forehead. Others there are who thinke, that to the same effect they are to be laid vnder the bolster and pillow where the patient lieth, before the Sun rise; and then shall he be sure to misse his fit and be warifised for that feuer. Indeed, Coriander whiles it is green, is of great force to coole the heat of agues. A cataplasme thereof made with Honey or Raisins, healeth vlcers also that be corrosiue and eat deep into the flesh. In like manner so prepared, it is verely good for the priuy members; for burns and scaldings, for carbuncles and for the eares. With womans milke it helps the eyes that water continually. The feed drunken water, staeth the flux of the belly & guts; yea, and in case of those violent euacuations vpwrd & downward, through the ragge of cholerick humors, being taken in drinke with Rue, it fetleth and knitteth the body againe. If the feed of it be drunke with faller oile and the iuice of a Pomgranat, it chafeth forth worms out of the entrails. *Xenocrates* telleth a strange thing, if it be true, namely, That if a wo-

A man drinke one onely grain or seed of Coriander, her menstruall flux will stay one day; if twain, they will hold vp two daies: and proportionably, looke how many feeds the drinketh, so many daies shal she go cleare and see no token of them. *M. Varro* was of opinion, That if flesh meat were powdered or corned with Coriander grosse beaten together with vinger, it would keepe sweet, and it were all the Summer long.

As for Orach, there is a wild kind of it growing of the owne accord : a very weed it is and no better, vtterly condemned by *Pythagoras* ; as if it bred the Dropsie, ingendered the laundife; brought folk to look ill and pale, and were exceeding hard of digestion : and so far hee was out of conceit with it, that he thought nothing would like wel & prosper, no not in a garden, where this grew neere, but that it would sensibly decay and fade. *Dionysius* and *Diocles* approuee this judgement of *Pythagoras*, and say moreouer, that most diseases are bred thereby. Nay, they would not haue it to be put into the pot to be sodden, vnlesse it had bin washed before in many waters. These Physitians hold that it is a very enemy to the stomack, ingendering pimples, freckles, and wheikles. But I muse and maruell much why *Solon* of Smyrna should write, that it hath much ado to grow and come vp in Italy. As for *Hippocrates*, he is not so far fallen out with it ; for with it and Beets he maketh a decoction (to be injected by the Metrenchyte) to assuage the inflammation in the matrice & the natural parts of women. *Lycus* of Naples was wont to giue it to drinke as a counterpoyson against the green flies Cantharides. And he thought that a very good liniment might be made thereof, either raw or sodden, to lay vnto biles, pusses, fellons a breeding, and all hard tumors whatsoever. Semblably, that if *S. Antonies* fire were annointed therewith, being incorporat with hony, vineger, and nitre, or if it were applied vnto the gouty parts, there would ensue great easement. Moreover, in case the nailes be grown crooked, vneuen, & rugged, it is said that it wil cause one to cast them without any vicer and fore at all. Some there be who prescribe an electuary, made with the seed of Orach and hony, to be giuen for the laundife: also if the windpipes be hoarse with some fell or sharp rheume falling downe vpon them, or, if the Amygdales on either side of the throat be amisse, it is very good to rub those parts therewith. They affirme moreouer, That a simple decoction of it alone, moueth the body downward ; but with Mallows or Lentils, prouoketh vpward and causeth vomit. Finally, to conclude with the wild Orach; it is vsed much to colour the haire black, and for the other aboue named purposes, as well as that of the gardens.

CHAP. XXI.

¶ Of the common Mallow. Of the Mallow Malope. Of the Marsh Mallow or Altea. Of the common Docke: the foure Docke or Sorrell: of the water Docke: of the tall Docke called Patience: and lastly of that Docke with the long root, called Bulapathum.

O Raches were not so much difcommended, but on the contrary side Mallows be as highly praised, as wel that of the garden as the wild. Two kinds there be of the garden mallows; distinguished both by the largenesse of their leaues. The greater of those that grow in gardens, the Greekes call Malopum; the other is supposed to be named Malachum; for that it doth mollifie and soften the belly. Of the wild sort, that which carrieth a broad leafe and white roots is called * Althæa, and of some, Aristalthæa, for the excellent vertues that it hath in Physick. This property haue Mallows, To enrich and fatten any ground, whersoever they be sown or set. But this marish Mallow Althæa, is more effectuell than the rest against all wounds by sharp pricks or thornes, and principally against the sting of Scorpions, Waspes, and such like, as also the biting of the Hardishrew mouse. Nay, whosoever be thoroughly rubbed or annointed before hand with any Mallow whatsoever, stamped with oyle; or do but carry it about them, they shall nor be stung or bitten at all. As for the leafe of Mallows, if it be laid vpon a Scorpion, it will be swiftwaies benumbed. Moreouer, good counterpoisons they be all: a liniment made of them being raw, together with nire, draweth forth all pricks or stings remaining within the flesh: but if leafe and root be sodden together and so drunk, it represseth the poison of the venomous fish called the sea-Hare; but some say it must be cast vp and vomited againe, or else it doth no good. Certes, strange and wonderfull things be spoken as touching the operation of Mallows, ouer and aboue those already rehearsed. But this passeth all the rest, That if a man or woman

woman sup off a smal draught (though it were no more but half a cyath) every day of the iuice of any mallow, it skills not which, he shall be free from all diseases and liue in perfect health. True it is, that if they be putrified and resoluēd in chamber-lie, they will heale all the scurfe & running scalls in the head, but if they be tempered with hony, a collumēd made thereof cureth the cankers of the mouth; and a lauature represseth all tetters, ringwormes, & any such wildfire running vpon the skin. A decoction of the root, clenseth the head of dandruffe, if it be washed therewith, & setteth the teeth fast that were loose. Take the root of that mallow which riseth vp with one only stem, prick the gums therewith about the toooth pained; do this (I say) till the ach be gone. The same root reduced into a liniment, with the fasting spittle of man or woman, and applied accordingly, resolues the Kings euil, dispatcheth the swelling kernels behind the ears, and discusseth biles and pusses, without any breaking of the skin or making vlcē. The seed of mallows if it be taken in thick wine, deliuereth the patient from phlegmatick humors, from the rheume, and the heauing of the stomack making offer to cast and cannot. The root wrapped fast and tied within a lock of blacke wooll, preuenteth the euill accidents that may befall vnto womens breasts. The same sodden in milke & taken after a suppling sort (in manner of a supping) for five daies together, cureth the cough. And yet *Sextius Niger* saith, they be hurtfull to the stomack. And **Olympias* of Thebes affirmeth, That if women vse it with goose grease, they shall not go their full time with childe. Others do write, That if women take an handfull of Mallow leaues in oyle and wine, they shall be thoroughly purged in their due times. This is known for a truth and resoluēd by all that write or make profession of Physicke, That a woman in labour, if she sit vpon Mallows strewed vnder her stoole, shall be deliuered with greater speed and expedition: but then must they be taken away presently after that she is laied, for feare that the very matrice follow after the child. An ordinary practice it is of sage and discret midwiues, to giue vnto women in trauell fasting, a small pint of the iuice of Mallows sodden in wine: & yet those that cannot contain but shed their naturall seed, are inioined to take mallow seed bruised, and so to bind it to their arme. Moreouer, so good and fauorable naturally be mallows to the game of loue, as if they grew for nothing els: in so much as *Xenocrates* doth affirme, That if the seed of that Mallow which runneth vp in one stalk, be reduced into pouder and strewed vpon that part of a woman which Nature hath hidden, she will be sowood after the company of a man, as the will neuer be satisfied nor contented with embracing. The like effect (saith he) there wil ensue, if three roots thereof be bound neere to the place of Nature. Also, that a decoction of Mallows ministred by way of clyster, is a singular injection to cure the bloody fluxe, or exulceration of the guts; as also the extraordinary and bootlesse desire to the seage. In like manner, a fomentation thereof is very good for other accidents befalling to the seat or tuil. The iuice of Mallows is giuen warm, the quantity of three cyaths, to melancholick persons that be troubled in mind; and of foure, to those that be stark mad indeed and besides themselves. A whole hemina of the iuice drawne and pressed from mallows boyled, is giuen at one time to those that be subject to the falling sicknesse. The same being reduced into a liniment, is to good purpose applied warm vnto those, who are troubled with the stone and grauell, with winde cholique and ventosities, with the cramp also or crick that doth draw their necks backward. The leaues being sodden in oyle, are layd with good successe in manner of a cataplasme, vpon the hot fretting humor called *S. Antonies* fire: also to places scorched, burnt, or scalded: but for the accidents and Symptomes concurrent with wounds, they be rather laid raw with crums of bread. The iuice of mallows boiled, is comfortable to the sinews, the bladder, and the fretting or grinding of the guts. Mallows being either eaten, or their decoction ministred by way of injection with a metrenchlyte, mollifieth the said tumors in the matrice. The iuice of mallows wel sodden, either taken in drinke or applied by way of fomentation, enlargeth the Vrecte conduits, and giueth good and easie passage for the vrine. The root of *Althæa* is more effectual to all these infirmities and purposes aboue named, than of any other Mallow; but especially in case of convulsions, cramps, and ruptures. If it be sodden in water, it bindeth the belly. Boyled in white wine and applied as a cataplasme, it resoluethe swelling kernels, commonly called the Kings euil; those also that risings called Pani, the leaues of *Althæa* or the Marish Mallow sodden in Wine and brought to the forme of a liniment, doe discusse and rid away. The same, after they bee drie, and sodden in milke, cure the Cough, how tough and shrewd soeuer it were, and that most speedily.

* A woman Physician, who writ of Physick, or at leastwise a midwife of good authority.

Hippocrates gaue counsell to them that were wounded, & for losse of blood exceeding thirstie; For to drink the juice of *Althæa* roots sodden. He saith moreover, That the root it selfe emplased with hony and rosin, is good for wounds, bruiſes, dislocations, and swellings: comfortable also to muscles, sinewes, or joints. He gaue it likewise to those that were troubled with difficulty of taking wind, and with wheezing; for the dysentery also or bloody flux, to be drunken in wine. A wonderfull thing of this root, that if it be put into water, and the same let to stand abroad in the open aire, the water will gather to a thicknes and cruddle, yea turne white it wil like milk. To conclude, the newer and fresher *Althæa* is, the more effectually you shal haue it in operation

B Touching the Dock, the properties thereof are not vnlike to thofe of the marfh Mallow: there is a wild kind thereof, which fome call Oxalis in Greeke [*i.* wild Sorrel or Soure-dock] this herb refembleth very neere that of the garden, in regard of the fharp pointed leaues; in colour like the white Beet, hauing a very fmall root: our countrymen name it in Latine Rumex; other Lapathum Cantherinum: this herb being incorporat with hogs greafe, is fingular to mollifie all the fwelled kernels, which fome call the Kings euill. A fecond fort there is, which commonly is called Oxylapathum, *i.* Sharp-pointed Docke; this commeth yet neerer to the garden Docke than the former: for it hath leaues fharp at the point and redder, and groweth not but in marfh grounds. There is another kind of Dock comming vp in the very water (as fome fay) Hydrapolathum. Yet is there one more called * Hippolapathum, bigger than the garden Docke or Sorrell, white alfo, and of a more foft and pulpous fubftance. As for all the wild Dockes or

* i. Patience, or
Monks Rheu-
barb.

C or Sorrell, white aloë, and ora more rare and precious substance. As for all the wild Dockes or
orrells, they be holden medicinable to cure the sting of Scorpions; and whoseuer hath any
off them about him, is secure from the sting or prick of Scorpions. The root, if it be sodden in
vineger and strained, the iuice thereof if the mouth be washed therewith, helpeth the teeth ach;
and if the same be taken in drink, it cureth the jaundife. The seed of this hearbe remooueth the
tough humors bedded in the stomack, how hard impacted soeuer they be: the roots of Patience
haue this peculiar property, To cause the nailes to fall off that grow rugged and nueuen. The
seed taken to the weight of two drams in wine, riddeth away the bloody flux. The seed of the
sharp Dock being washed in rain water, is singular good for those that reach and cast vp blood,
if there be added thereto as much Acacia as the bignesse of a Lentill. There be most excellent
Trochiskes made of the leaues and root thereof, with the addition of nitre and some little
quantity of* conuenient liquor, to incorporat and vnite them: and these must bee infused and

d * *Lure*, haply
e for *Thure*, i.
h Frankincense
t according to
Cornarius.

D quantity of * conuenient liquor, to incorporat and vntre them : and thele muſt bee intred and diſſolued in vineger, at the time that they are to be vſed. As touching the garden Sorrell, there is a liniment made thereof, which being applied in manner of a frontall to the forehead, cureth the diſtillation of the watery humours to the eies. The root is ſingular for the wens or impoſthumes called Melecerides, and likewiſe of the Lepry. The decoction in wine is as good for the ſtone and grauell; as alſo to reſolue the Kings euill, and the ſwellng kernels behind the ears. If the ſeed be drunk in wine, it helpeth the ſpleen and the tumors thereof: the bloody flux likewiſe, the ſtomachicall flux, and the vaine deſire to the ſtoole without effect. But for all theſe purpoſes, the iuice of the Dock is more effectual.ouer and aboue, it breaketh wind vpward, it prouoketh vrine, and diſcuſſeth the cloud and Miſt that troubleth the eies. If this herbe be put vp vnder the bathing tub within the baine, or otherwiſe if the body be annointed with a liniment thereof without oyle, before one enter into the bath, it taketh away the itch. If the root be but chewed only, it ſtreeneth the teeth that ſhake in the head. The ſame root ſodden in wine, ſtaieſt the flux of the belly, and bindeth it; and yet the leaues make the body ſoluble. Finally (becauſe I would willingly omit nothing) *Solen* hath made mention of another Docks, called *Bulapathum*, nothing different from other Docks, but that the root runneth deeper into the ground, which, if it be taken in wine, cureth the bloody flux.

С H A P. XXII.

¶ Of three kinds of Servey : of Horehound, and wilde running Thyme : of water
Cresses : of water Minis, otherwise called Thymbræum : of
Linsæed, and Bleets.

THe herbe Senvey, whereof there be three kinds (as I haue already obserued in my treatise of garden plants) *Pythagoras* hath placed in the highest ranke of those simples that fume vp aloft: for there is not a thing that sooner bireth one by the nose, & pierceth and moun-
 H reth

H

teth more quickly into the brains than doth Senvey. The seed thereof [commonly called mustard seed] being stamped, & with vineger reduced into a liniment, cureth the sting of serpents, and namely the prick with the Scorpion. It hath besides, a singular vertue to mortifie & kill the venomous quality of mushrooms. If it be but held in the mouth vntill it melt and resolue, or therwise be gargarised with honied water, it draweth waterie fleame out of the head. Being chewed, it easeh the toothach. For the falling down of the Vvula, a gargarisme made of it with vineger and honey, is excellent. There is not a medicine so singular for the stomack and all the infirmities thereof, ne yet for the lungs. Being eaten at meat, it doth loosen superfluous fleame, and causeth a man to reach and fetch it vp with ease; yea and to take his wind and breath at liberty. In like manner, being taken warm with the juice of Cucumber, it cureth the falling sickness. It purifieth the senses: it purgeth the head by smelling; it keepeth the body soluble: it prouoketh womens monethly fleures, and vrine. A cataplasme made therewith and applied accordingly, helpeth them that be in a dropsie: so it doth those that be subiect to the falling sickness. but then must it be stamped with three parts of Cumin and figs. If it be tempered with vineger and held to the nose of such women as with the rising of the mother seeme to be strangled and to lie in a trance, it raiseth them vp again; in like sort, it awakens those who be in a fit of the lethargy: howbeit, in this case it is good to put thereto the seed of Sefeli of Candy, which they call Tordilion. But say that the Patients be in so deep a sleep in this drowfie disease, that by such means they will not start vp and be raised; then take mustard-seed and figgs, temper them with vineger into a cataplasme, apply the same to the * legs or the * forehead or region of the brain rather. It hath a caustick or burning quality, and being applied in form of a liniment to any part, it raiseth pimples; by which means it cureth the old inueterat pains of the brest, the ach of the loins, the haunch, and hucklebone, the shoulders or any part of the body where need is that the offensive humors settled deep within, should transpire and be drawn outwardly to an issue. Now for that the nature thereof is to blister, in case the patient be timorous, & fear some extreme operation of that burning quality that it hath, it may be applied to the part affected between a doubled linnen cloth: otherwise, if the place be very thick and hard, it would be laid too without any figs at all. Moreouer, there is a good vse of Senuy with red earth, for to make the haire come again which is fallen; for scabs and scurfe, for foule morpew or the leprosie, the lowfie disease, the vniuersall cramp that causeth the body to stand stiffe and stark, as it were all of one piece without ioint; also the particular cricke which setteth the neck backward, that it cannot stir. An inunction made with it and hony, cureth the eye-lids that be not smooth, but rugged and chapped; yea and clarifieth the eyes which be ouercast with a muddy mist.

As touching the juice of Senvie, it is after three sorts drawne; the first, being pressed forth, it is let to take a heat in the Sun gently by little and little, within an earthen pot. Secondly, there issueth forth of the small stems or branches that it hath, a white milky liquor, which after it is dried and hardened in that manner, is a singular remedy for the tooth-ach. Where note by the way, that the seed & root both, after they haue bin wel steeped and foked in new wine, are stamped or brayed together: now if one do take in a supping as much of this iuice thus drawne, as may be held in the ball of the hand, it is very good to strengthen the throat and chaws, to fortifie the stomack, to corroborat the eyes, to confirm the head, and generally to preferue all the senses in their entire. And verily I know not the like wholsome medicine againe, to shake off and cure the lazy and lither feuers that come by fits many times vpon women. Senuy also being taken in drinke with vineger, breaketh the stone and expelleth it by grauell. There is an oyle also made of mustard-seed, infused and steeped in oyle, and so pressed out; which is much vsed to heat and comfort the stiffness of sinewes occasioned by cold; to warme also and bring into temper the thorough cold lying in the loins, hanches and hucklebones, whereof commeth the Sciatica. Of the same nature and operation that Senue is, Adarcia is thought to be (according as I haue touched in the discourses of plants and trees growing wild in the woods;) which is a certain fomy substance arising and sticking in the bark of certain Canes, vnder their very leaues and tufts that they beare in the head.

Concerning Horehound, which the Greekes call Prasion, others Linoistrophon, some Phylotes or Philochares, an hearbe so well knowne and so common, that it needs no description; many Physitians haue commended to be as medicinable as the best. And in truth, the leaues and seed both, being beaten into powder, are excellent good for the stinging of serpents, for the

A paine of the brest and sides, & singular for an old cough. Moreouer, the juice is right soueraign for those who haue their lungs perished and do reach vp bloud, if the branches thereof gathered and bound vp into bunches, be sodden first in water with the grain called Panick, for to mitigate in some sort the vnpleasant harshnesse of the said juice. A cataplasme of Horehound applied vnto the Kings euill with some conuenient fat or greafe, resolueh the hard kernels. Some prescribe a receit for the cough in this maner; Take the seed of green Horehound, as much as a man may comprehend with two fingers, seeth it with a smal handful of the wheat called Far, putting thereto a little oile and salt, and so sup off the decoction fasting. Others hold, That without all comparison there is not a medicine in the world like to the juice of Horehound and Fennel together, first drawn by way of expression to the quantity of 3 sextars, & afterwards boiled to the consumption of a third part vntill there remaine but two sextars; then to this decoction there must be put one sextar of hony, & all sodden again to the consumption of one third part more, vnto the height of a syrrup, whereof one spoonfull euery day taken in a cyath of water, is a drinke that in this case hath no fellow. Horehound stamped and mixed with hony, is of wonderfull effect being applied to the priuy parts of a man, for any griefes incident thereto. Laid with vineger, vnto ring-worms, tetters, and any such running wildfires, it purgeth and riddeh them clean away. A wholsome medicine it is to be applied as a cataplasme, to ruptures, convulsions, spasmes, and cramps of the sinews. Taken in drinke with salt and vineger, it easeh the belly and maketh it laxatiue. It prouoketh womens terms, and sendeth out the after-birth. The powder of it drie, mixed with honey, is of exceeding great efficacy to ripen a dry cough, to cure gangrenes, white-flaws, and wertwalls about the root of the nails. The juice dropped into the ears with hony, or snuffed vp into the nose, cureth their infirmities; it scoureth away the Jaundise also and purgeth cholerick humors. And for all kinds of poisons, few herbs are so effectuell as Horehound; for it selfe alone without any addition, clenseth the stomack and brest, by reaching and fetching vp the filthy and rotten fleame there ingendred. If it be taken with hony and the floure-de-lis root, it prouoketh vrine. Howbeit, where there is danger of any exulceration in kidneys or bladder, it must be vsed with great warinesse, if it be vsed at all. Moreouer, the juice of Horehound is said to clarifie the cie-sight. *Castor* putteth downe two sorts of Horehound, to wit, the black and the white, but he setteth greater store by the white than the other. He prescribeth to take an empty egg-shel, and to put into it the juice of Horehound and hony, by euen portions; & when the said egge is warm, to minister the same by way of clyster or syringe, promising vs that the said iniection will breake all inward imposthumes; and when they be broken, cleanse and heale them thoroughly. Also a liniment (saith hee) made of Horehound stamped together with old swines greafe, cureth all wounds occasioned by the biting of mad dogs.

Touching running Thyme, some think it is called Serpyllum in Latine, *a serpendo* [i. of creeping] because it runneth and creepeth by the ground; a property indeed of the wild kind, and especially among rocks and stony grounds. The garden Serpyllum, which commeth of seed, creepeth not, but groweth to the height of four-fingers bredth. The wilde Thyme which commeth vp of the own accord, liketh and thriueh better, hauing whiter leaues and branches than the other: this (I say) is thought to haue a speciall vertue against serpents, and namely the Cenchris, the Scolopendres also as well of the sea as the land; likewise the Scorpions, in case the sprigs and leaues thereof be sodden in wine, and so taken inwardly: if the same be burned, it yeeldeth a perfume, which with the very sent chafeth them all away. A singular power it hath against all venomous creatures of the sea. Boiled in vineger, & reduced into a liniment with oile of roses, it cureth the head-ach, if it be applied as a frontall to the forehead and temples. In like manner it helpeth the phrensie and lethargy; but if it be giuen to drinke, the weight only of four drams, it easeh the wrings & torments of the belly, it giueh free passage with ease to the vrine, it resolueh squinancy or bringeth them to maturity, and staieth vomits. And if one drinke it with water, it is excellent good for the opilation, heat, inflammations, and other accidents of the liuer. The leaues, to the weight of four oboli, are giuen in vineger, for the inflation and hardnesse of the spleen. If it be beaten to powder and giuen in 2 cyaths of vineger and hony, it is thought a good medicine for them that spit and reach vp bloud.

The wild Sisybrium or Cresses, called of some Thymbræum, groweth to a foot in heighth and no higher. That which commeth vp in watery places, is like vnto garden Cresses: but both sorts are effectuell against all pricks and stings of Hornets, and such like creatures. That which

springeth vp in dry ground, hath the narrower leafe of the twain, and carrieth a sweet smell with it; whereupon it is commonly plaited amongst other odoriferous herbes in chaplets and guir-lands. But both the one and the other allaieth head-ach: likewise they doe stay the flux of wa-terish humors which distill into the eyes. Some put crums of bread thereto, others seeth them alone in wine, and vse the decoction. Being reduced into a cataplasme, and so applied euery night and taken off in the day time, it heals within foure times laying on, the angry chilblanes and bloudy-fals that trouble the feet in the night season; yea and taketh away the spots & pim-ples arising in womens faces, which marreth their beauty, whether it be eaten with meat in sub-stance, or the juice only taken in drink; it staieth vomits, yexes, wringings, gnawings, and the dis-solution or feebleness of the stomach, which causeth inordinat flux. Women going with child must take heed how they eat Silybrium, vnlesse the fruit of their bodies be dead within them; for if it be but applied outwardly, it will send it forth. If one drinke it with wine, he shall find that it prouoketh vrine, and the wild kind ouer and besides, expelleth the stone and the grauell. Such as had need to wake and warch, namely, those that be giuen to drowynesse and lethargie, will be raised from their sleep and throughly wakened, if it be distilled aloft vpon their heads with vineger.

Line-seed is imp'oyed with other matters in diuers medicines to many vses, but of it selfe alone it cleareth the skin of womens faces, taketh out spots, freckles, pimples, wems, and molls that be eye-fores, if it be applied as a liniment thereto. The juice therof quickneth and helpeth the eye-sight. With Frankincense and water, or els with Myrrhe and wine, it represseth the vio-lent flux of humors to the eyes. Reduced into a cataplasme, with honey, greafe, or waxe, and so lent flux of humors to the eyes. Reduced into a cataplasme, with honey, greafe, or waxe, and so applied, it resolneth the swelling kernels behind the ears. The meale thereof in manner of drie barley groats, if it be strewed vpon the stomach, helpeth the weaknesse and queasinesse thereof, which maketh it ready to ouerturn. If it be sodden in water and oile, and so reduced into a lini-ment with Aonise-seed, and applyed, it cureth the squinancie. It must be wel dried and parched at the fire, in case it be giuen to stay the running out of the belly. As for those that be troubled with the stomachicall flux, or the exulceration of the guts; a cataplasme thereof with vineger and so applied bringeth them present ease. For the griefe of the liuer, it ought to be eaten with raisons. This seed is passing good for lioches or eleataries to be made thereof, in the cure of the Phthisick, and consumption of the lungs. Linefeed growing into floure and mingled with nitre or salt, or els with ashes put thereto, is of great operation to mollifie the hardnesse of mus-cles, sinews, joints, and the nape or chine of the neck; yea and to mitigat the inflammations of the membrans or pellicles of the brain. The same applyed with figs, is an excellent maturatiue, and ripeneth all impostumes. But if it be laid too with the root of the wild Cucumber, it draw-eth forth any thing that sticketh within the body, euen the very spils & shuiers of broken bones. The said pouder or floure made of Line-feed sodden in wine, and applied as a cataplasme, stay-eth cancerous vlcers that they run no further: the same also with hony ripeneth apostemations of flegmatick humors, and the breaking forth of the small pox. Being mingled with an equall portion of garden Cresses, it cureth the rough nailes that grow vntowardly, and fetcheth them off without any inconuenience. Incorporat with rosin and * Myrrhe, and so laid to the cods, it helpeth their swelling and inflammations: it is good also for ruptures of all sorts; & with wa-ter it healeth the gangrene. Take of Line-feed & Fenigreek seed, of each one sextar, seeth them in honied water, and make a liniment thereof, it easeth the paine of the stomach. Line-feed mi-nistred in a clystire with oile and hony, cureth the deadly maladies of the guts and breast parts.

Bleets seeme to be dull, vnfauorie, and foolish Woor, hauing no tast nor quicknesse at all: whereupon *Mander* the comical Poet, bringeth in a husband vpon the stage, and io to reproch his wife for her sottishnesse and want of sense, giueth her the terme of Bleet. And in very truth, good it is for little or nothing, and altogether hurtfull vnto the stomacke. It troubleth and dis-quieteth the belly, inasmuch as it driueth some that vse to eat it, into the dangerous disease Cholera, working both vpward and downward without any stay. And yet some say, that if it be drunk in wine, it is good against Scorpions, and serueth for a pretty liniment to be applied vnto the agnells or corners of the feet, yea and maketh a reasonable good cataplasme with oile, for the spleen, and pain of the temples. Finally, *Hippocrates* is of opinion, that much feeding of Bleets, staieth the monethly course of womens tearmes.

CHAP.

CHAP. XXIII.

¶ Of *Meu*, and *Fenell*, as well *Gentle*, named *Feniculum*; as *Wild*, which is called *Hip-pomarathrum*, or *Myrsineum*: of *Hempe*, and *Fenell*-geant: and of *Thi-sles* and *Artichoux*.

MEu or Spicknell is not found in Italy, vnlesse it be in some Physitians garden, and those are very few that sow or set it. Howbeit, there be two kinds thereof; the one, which is the better, is commonly called *Athamanticum*, of Prince *Athamas* the first inventor of this herbe, as some thinke; but according to other, because the best *Meu* is found vpon *Athamas*, a mountaine in *Thessaly*. Leased it is like to * *Annise*, rising vp with a stem otherwhile two cu-bits high, putting forth many roots, and those blackish, whereof some run very deepe into the ground; neither is this *Meu* so red altogether as the other. If the root therof be beaten into pou-der, or otherwise sodden and so drunk in water, it causeth vrine to passe abundantly: in that or-der also it doth resolue wonderfully the ventosities gathered in the stomach. It assuageth mi-gh-tilly the wrings and torments of the guts; it openeth the obstructions, and cureth other infirmi-ties of the bladder and the matrice. Applied with honey, it is very good for the joints. Beeing laid as a cataplasme with *Parley* to the bottome of the belly of little children, it causeth them to make water.

As for *Fenell*, the Serpents haue woon it much credit, and brought it into name, in this re-gard, That by tasting thereof (as I haue already noted) they cast their old skin, and by the juice that it yeeldeth do cleare their eyes: whereby we also are come to know, that this herbe hath a singular * property to mundifie our sight, and take away the filme or web that ouercasteth and dimmeth our eyes. Now the only time to gather and draw the said juice out of *Fennel*, is when the stalks beginneth to swell and wax big: which after it is receiued, they vse to dry in the Sun, and as need requireth, make an iniunction with it and honey together. There is of this juice to be had in all places: howbeit, the best is made in *Iberia*, partly of the gum that isliueth or frieth (rather) out of the stalk [being brought neere to the fire,] or els drawn from the seed whiles it is fresh and green. There is another making thereof out of the roots, by way of incision, presently after that *Fennel* beginneth to spring and put forth out of the ground, when *Vinter* is done.

D There is another kind of wild *Fenell*, named by some *Hippomarathrum*, by others *Myrsineum*. Larger leaves this hath than that other of the Garden, and those more sharpe and biting at the tongues end: it groweth taller also, and ariseth with a maine stem as big as a mans arm, & hath a white root. It groweth in hot grounds and those that be stony. *Diocles* maketh mention of ano-ther kind yet of wild *Fennel*, with a long & narrow leafe, bearing seed resembling *Coriander*. As touching the garden *Fenell*, and the medicinable vertues that it hath, it is holden, That the seed, if it be taken inwardly in wine, is a soueraine drinke for the prick of Scorpions or sting of other Serpents. The juice thereof, if it be infilled by drops into the eares, killeth the wormes there. The herb it selfe carrieth such sway in the kitchin, that lightly there is no meat seasoned nor any vineger sauce serued vp without it. Moreouer, for to giue a commendable and pleasant tast vnto bread, it is ordinarily put vnder the bottome crust of our loues, when they be set into the oven. The seed doth bind and corroborat a weak and feeble stomach, yea if it be taken in a very ague. Being beaten into pouder & drunk in cold water, it staieth the inordinat heauing of the stomach, and the vaine proffers to vomit; for the lights and the liuer, it is the most soueraine medicine of all other. Being taken moderately, it staieth the loosenesse of the belly, and yet pro-uoketh vrine. The decoction thereof appeaseth the wrings of the guts; and taken in drink, it fil-let women's breasts, and maketh them to strout again with milk, when it is gone vpon some oc-casion. The root taken in a *Ptisane* of husked barley, purgeth the reins; so doth the syrup made with the juice or decoction therof, yea and the seed. The root sodden in wine, is singular good for the dropie and the cramp. A liniment made with the leaues and vineger, and so applied, as-suageth hot swellings and inflammations: and the said leaues haue vertue to expel the stone of the bladder. *Fennel* taken inwardly any way, increaseth sperme or natural seed. A most friendly and comfortable herb it is to the * priue parts, whether it be by fomenting them with a deco-ction of the roots boyled in wine, or by applying a liniment to them made with the said roots stamped & incorporate with oile. Many do make a cerote thereof with wax, for to lay vnto tu-

* *Anise*, rather
after *Disse*,
whereupon it
is called of
some, wilde
Dill.

* Such medi-
cines be called
equalizers.

* either swollen,
exulcerate, or
itching.

H 3

mors,

moours to places bruised & made black and blew with stripes. Also they vse the root either prepared with the juice of the herb, or otherwise incorporat with hony, against the biting of dogs; and taken in wine, against the worm called Milleped. But for all these purposes before said, the wild Fennell is of greater operation than the garden Fennell: but this principal vertue it hath, mightily to expell the stone and grauell. If it be taken with any mild and small wine, it is very good for the bladder [and namely the Strangury] also it prouoketh womens tearmes that be either suppressed or come not kindly away: to which purpose the seed is more effectuall than the root. But whether it be root or seed, it would be vsed in a mean & measure: for it is thought sufficient to put into drink at once, as much as two fingers wil take vp. *Petridius*, who wrote the booke intituled **Ophiaca*, and *Mytion* likewise in his Treatise named **Rhizotomumena* were of opinion, That there is not a better counterpoyson against the venome of Serpents, than, wild Fennell. And certes, *Nicander* himselfe hath raunged it, not in the lowest place of such medicines.

* Of Serpents.
* Of cutting
vp or gathering
roots.

Concerning Hemp, at first it came vp without sowing euen in the very woods, and carried a more duskyish green leafe, and the same rougher. It is said, that if men eat the seed, it wil extinguish vtterly their own seed. The juice of green Hemp-seed, being dropped into the eares, driueth out any wormes or vermin there ingendred, yea, and what ear-wigs or such like creatures that are gotten into them: but it will cause head-ach withall. So forcible is this plant, that (by report) if it be put into water, it will make it to gather and coagulat. Which is the reason, that if horses haue the gurry, they shall find help by drinking the said water. The root if it be boiled in water, doth mollifie and soften ioints that be shrunk vp: it assuageth the pains likewise of the Gout, and such likewicked humors that fall down vpon any part. Being yet green and reduced into a liniment and so applied, it is good for burnes or scaldings, but it must be often remoued and changed before it be drie.

As for *Ferula* or Fennel geant, it carrieth a seed like to Dill. That kind which riseth vp in one stem, and then diuideth it self and brancheth forth in the head, is supposed to be the female. The stalks are good to be eaten boyled: and the right sauce wherein they be serued vp, to giue them a more commendable tast, is new wine and hony tempered accordingly, and so prepared, they be good for the stomack. Howbeit, if one eat ouer-liberally of them, they cause head-ach. Take the weight of one denier Roman of the root, beat it to powder and drinke it in two cyaths of wine, you shall find it a soueraigne medicine against the stinging of serpents: but you must not forget mean while to apply the root it self (stamped into a cataplasme) vnto the hurt place. After this manner it helpeth the wringing torments of the guts. Make a liniment or vnguent thereof and vineger together, annoint the body therewith; it restraineth the immoderate sweats that burst out, although the Patient be sick of a feuer. The juice of *Ferula*, if it be eaten (to the quantity of a Beane) doth loosen the belly. The small tendrils or branches of greene *Ferula*, is good for all the infirmities abouenamed. Take ten grains of *Ferula* seed in powder with wine, or so much of the pith within the stalk, it stancheth blood. Some hold it good to giue a spoonful thereof euery fourth, sixth, and seventh day after the change of the Moon, to prevent the fits of the falling sicknes. The nature of all these Fennel-geants is most aduerse to Lampreies, for if they be touched neuer so little therewith, they will die vpon it. *Castor* was of opinion, That the juice is excellent good to cleare the eye-sight.

And forasmuch as I haue spoken somewhat of Thistles and Artichoux (how they should be ordered) in my treatise of other garden plants, I will put off no longer to discourse also of their properties and vertues in Physick. Of the wild Thistles there be two kinds: the one more ful of branches, shooting out immediatly from the root; the other riseth vp in one intire stem, and the same is thicker withall. Both of them haue but few leaues, and those beset with prickles: they beare heads pointed with sharp prickles round about in manner of caltrops. Howbeit, there is one kind, which is the Artichoke, which putteth forth a purple floure amidst those sharpe pointed prickles, which very quickly turns into an hoarie downe, readie to flie away with euery puffe of wind: and this thistle the Greeks cal *Scolymos*. The juice of the Artichoke stamped & pressed out before it bloome, bringeth haire again thicke, if the naked place be annointed therewith. The root either of Thistle or Artichoke, foddren in water and so eaten, is as good as a shooing-horne to draw on pot after pot, for these great bibbers that desire nothing more than to be thirly and to make quarrell to the cup. It stiren gtheneth the stomacke, and (if we may beleue it) is

A so appropriate vnto the matrice of women, that it disposeth and prepareth it to conceiue men children. In good faith, *Chereas* the Athenian, and *Glaucias* especially, who seemeth to be most curious in describing the nature and properties of these Thistles or Artichokes, giue out no lesse. To conclude, if one chew them in his mouth, hee shall finde that they will cause a sweet breath.

CHAP. XXIV.

¶ The composition of a Treacle which was the ordinarie and familiar medicine of King *Antiochus*.

B Vt before that we go out of the garden, and leaue the herbes there growing, I think it good to set down one confection made of them, thought to be a most excellent and soueraigne antidote or preseruatiue against the poison of all venomous beasts whatsoeuer, and which for the excellency thereof was ingrauen in stone vpon the forefront of the temple dedicated to *Esculapius*, in this maner following: Take of wild running Thyme the weight of two deniers; of *Opopanax* and **Meu* of each the like quantitie; the seed of Dill, Fennel, Ameos, and Parsly, of each the weight of six deniers; of Ervil floure twelve deniers or drams. Let these be beaten into powder and finely seared; and when they be incorporat in the best wine that may be had, they ought to be reduced into the form of Trofches, euery one weighing a victoriat or half denier. When occasion is to vse this composition, dissolue one of these Trofches in three cyaths of wine, and drinke it. This is that famous Treacle or countrepoyson which great *Antiochus* the King was wont (by report) to take against all venoms or poysons whatsoeuer.

* *Mei*, non *deli*
ly. *Ex Galen.*



THE TWENTY FIRST BOOKE
OF THE HISTORIE OF NATVRE,
WRITTEN BY C. PLINIVS
SECVNDVS.

The nature of Floures, and namely those of Chaplets and Guirlands.

CHAP. I.

¶ The wonderfull varietie of Floures.



As in his Treatise of Gardens ordained as a necessary point, That they should be planted and enriched with such herbes as might bring forth floures for Coronets and Garlands. And in very truth, their diuersitie is such, that vnpossible it is to decipher and expresse them accordingly. Whereby wee may see, that more easie it was for dame Nature to depaint & adorn the earth with fundrie pictures, to beautifie the fields (I say) with all maner of colours, by her handyworke (especially where she hath met with a ground to her minde, and when she is in a merrie humour and disposed to play and disport her selfe) than for any man in the world to vtter the same by word of mouth. Wherin certes her admirable prouidence she hath shewed principally

in this, That whereas the hath giuen vnto those fruits of the earth which serue for necessities & the sustentation of man, long life and a kind of perpetuitie, euen to last yeares and hundreds of yerres, these floures of pleasure and delight, good only to content the eye, or please the sense of smelling, she would haue to liue and die in one day. A great document and lesson for vs men in general to learne, How all things whatsoeuer that flourish most louely and be gayest in shew, soonest fade and are gon suddenly. But to come again to the varietie of floures aforesaid, together with their diuers mixtures: verily there is no painter with all his skil, able sufficiently with his pensil to represent one liuely garland of floures indeed; whether they be plaited and inter-medled in maner of nosegayes one with another, or set in ranks and rewes one by another; whether they be knit and twisted cord-wise and in chain-work of one sort of floures, either to wind and wreath about a chaplet, bias, or in fashion of a circle, or whether they be sorted round into a globe or ball, running one through another, to exhibit one goodly sight and entire vniformity of a crosse garland.

CHAP. II.

¶ Of Garlands, Coronets, Chaplets, and Nosegayes made of flowers. Who deniſed firſt the ſorting and ſetting of ſundry flowers. The firſt inuention of the Coronet or Guirland, and the name of it in Latine, Corolle: and whereupon it was ſo called.

THe Coronets or Garlands vsed in antient time were twisted very small, and thereupon they were called *Strophia*, *i.* *Wraths*: from whence came also womens gorgets & stomachers to be named *Strophiola*. As for the word *Corona*, a Coronet or Garland, long it was first ere it came to be vulgar and commonly taken vp, as a term challenged either by priests and sacrificers in their diuine seruice, or victorious capitaines in their glorious triumphs. But those Garlands and nosegayes being made of floures were called in Latine *Serta*, or *Seruix*, & *serendo*, *i.* of sorting and setting together. The manner of which plaiting and broiding of herbes and floures, the antient Greekes took no pleasure in: for at the beginning they vsed to crowne with branches only of trees, those braue men who had woun the prize in their sacred games and solempne Tournies or exercises of actiuitie. But afterwards they began to beautifie and enrich their chaplets of triumph with sundry floures entermingled together. And, to say a truth, the *Sicyonians* passed in this feat of sorting together one with another, floures of sweet sauer and pleasant color, in making of posies and garlands. Howbeit the example of *Paussias* the cunning painter, and *Glycera* the artificial maker of such Chaplets, set them first a worke. This Painter was wonderfully enamoured vpon the said *Glycera*, and courted her by all the meanes hee could deuise: among the rest, he would seem to counterfeite and represent liuely with his pensil in colours, what floures fouer he wrought and set with her fingers into garlands; and shee againe strived aue to change and alter her handiwork every day, for to drue him to a non-plus at the length, or at leastwise to put him to his shifts: insomuch, as it was a very pleasant and worthie sight, to behold of one side the works of Nature in the womans hand, and on the other side the artificial cunning of the foresaid painter. And verily there are at this day to be seene diuers painted tables of his workmanship: and namely one picture about the rest, entituled, * *Stephanoplocos*, wherein hee painted his sweet-heart *Glycera* twisting and braiding Coronets and Chaplets, as her manner was. And this fell out to be after the hundreth Olympias was come and gon, by iust account.

Now when these Garlands of floures were taken vp and receiued commonly in all places for a certain time, there came soon after into request those Chaplets which are named Egyptian; and after them winter Coronets, to wit, when the earth affoordeth no floures to make them; and those consisted of horn shauings died into sundry colours. And so in proceſſe of time, by little and little crept into Rome also the name of Corollæ, as one would say, petty Garlands; for that these Winter Chaplets at first were so pretty and small: and not long after them, the costly Coronets and attires Corollaria, namely, when they are made of thime leaues and plates and Latin, either gilded or siluered ouer, or else set out with golden and siluered spangles, and so presented.

CHAP.

CHAP. III.

Who was the first that exhibited in publicke (shew a Guirland or Chapter of gold and silver-foile. How highly Coronets were esteemed in old time. Of the honour done to Scipio. Of plaited Coronets. And one notable Act of
Queene Cleopatra.

C *Rassus* the rich was the first man, who at the solemn Games and Plaies which he set out in Rome, gaue away in a braue shew, Chaplets of gold and siluer, resembling liuely floures and leaues of hearbes. Afterwards, such Coronets were adorned with ribband also, and those were added as pendants thereto for more honour and state: a deuise respectiue to those * *Tuscan* Guirlands and Coronets, which might haue no such ribbands or lace hanging vnto them but of gold. And in truth those labels a long time were plaine and without any other setting forth save only the bare gold: vntill *P. Lucius Pulcher* came in place, who exhibited in his publicke shewes, the said labels wrought, chased, and engrauen; yea, and hee garnished the said plates of gold with glittering and twinkling spangles besides. Howbeit, were these Coronets neuer so rich and precious, yet those Chaplets woon and gotten at the solemn Games for some worthy feats of actiuitie performed, caried alwaies the greater credit & authority. For to gaine this prise, the Grand-siegnors and great men of the citie thought it no scorne to enter themselves in proper person into the publick place of Exercise to trie maistries: yea, and thither they sent euery man his seruant and slaue. Hereupon grew these Ordinances, specified among the laws of the twelue tables in these words: *Whosoener winneth Guirland, either himselfe in person, or by his menie, goods and chattels, is to be honoured in regard of his vertue.* And certes who maketh doubt, but what Prise or coronet, either slaues or horses haue obtained, the same by vertue of this law, should be reputed as gotten by the money and goods of the master or owner of the said horses or slaues? But what honor might this be which is thus atchieued by such a chaplet: may I say that which is right great, namely, that without all fraud and contradiction, not only the party himselfe who woon it, should be crowned therewith after his death, both whiles his body lay vnder board within house, and also all the way that it was caried forth to the place of sepulture or funeral fire; but even his parents likewise, both father and mother [if they were then liuing.] certes, such Guirlands otherwise though they were not woon at games or prize, but only made for pleasure & pastime, might not come abroad ordinarily, nor be commonly worn; for the law was very strict and seuer in this case: we read that *L. Fulvius Argentarius* in the time of the second Punicke war, upon an information or speech giuen out, That in the open day time he only looked forth of a gallerie which he had in the publicke Forum or common place at Rome, with a Garland of Roses vpon his head, was by authoritie of the Senate committed to prison, and was not enlarged before the end of the warre. *P. Mummius* hauing taken from the head of *Mavsus* a Chaplet of floures, and set it vpon his owne; and thereupon being commaunded to ward, by the Triumvirs, called vnto the Tribunes of the Commons for their lawfull fauour and protection: but they opposed not themselves against this proceeding, but deemed him worthe of this chastisement. See the discipline and seueritie at Rome, and compare it with the loosenes of the Athenians, where yong youths ordinarily followed reuils and bankets, and yet in the forenoon would seeme to frequent the schooles of Philosophers, to learne good instructions of vertuous life. With vs verily we haue no example of disorder in this behalf, namely, for the abuse of garlands; but only the daughter of *Augustus Caesar* late Emperour, and cannonised as a god at Rome, who complaineth of her in some letters of his yet extant, & that with grone and grieve of heart, to be giuen to such riot and licentious loosenesse, that night by night she would seeme to adorn with Guirlands the statue and image of *Mavsus* the Minstrell. We do not read in Chronicles, that the people honoured in old time any other with a Coronet of floures, but onely *Scipio* surnamed *Scrapio*, for the neere resemblance that he had to his baily or seruant so called, who dealt vnder him in buying and selling of Swine: in which regard he was wonderous well beloued of the commons in his Tribuneship, as bearing himself worthy of the famous and noble house of the *Scipios* surnamed *Africani*. Howbeit, as well defended and beloued as he was, yet when hee died, he left not behind him in goods sufficient to defray the charges of his funerals: the people therefore made a collection, and contributed by the poll euery man one * As: and so took order

* These Guilt-lands or Chap-
lers were cal-
led *Heirusce*.
For so saith
Tertullian. *Pro*
ferantur etiam
illi Heirusce.
Heuconcabum
est Carnari &c
to be Edile.

* thirteen far-
things.

by a generall expence, that he should be honourably enterred: and as his corpes was carried in G the streets to his funeral fire, they flung floures vpon his bere out of euery window all the way. In those daies the maner was to honor the gods with chaplets of floures, and namely those that were counted patrones and protectours, as well of cities and countries, as of priuat families; to adorne and beautifie therewith the tombs and sepulchres of those that were departed, as also to pacifie their ghosts, and other infernall spirits: farther than thus, there was no vse of such Guirlands allowed. Now of all those Chaplets, most account was made of them wherein the floures were platted. We find moreover, that the Sacrificers or Priests of *Mars* called *Salij*, were wont in their solemnities & feasts (which were very sumptuous) to weare Coronets of sundry floures sowed together. But afterwards, Chaplets of Roses were only in credit and reputation: vntill that in proesse of time, the world grew to such superfluitie and sumptuous expence, that no Guirlands would please men, but of the meer precious and aromaticall leaf *Malabathrum*: and not content therewith, soone after there must be Chaplets set as far as from India, yea, and beyond the Indians, & those wrought with needle work: and the richest coronet was that thought to be, which consisted of the leaues of *Nard*: or els made of fine silke out of the *Seres* country, and those of sundry colors, perfumed besides & al with costly and odoriferous ointments. Further than thus they could not proceed, and so our dainty wanton dames rest contented hithereto, and vse no other Chaplets at this day. As for the Greekes verily, they haue written also seuerall Treatises concerning floures and Garlandes: and namely, *Mnesitheus* and *Callimachus*, two renowned Physicians, haue compiled bookes of those Chaplets that be hurtfull to the braine and cause head-ach. For euen herin also lieth some part of the preservation of our health, considering that perfumes do refresh our spirits, especially when we are set at table to drinke liberally and to make merrie, whiles the subtil odour of flours pierceth to the braine secretly ere we be aware. Where, by the way, I cannot chuse but remember the deuise of *Queene Cleopatra*, full of fine wit, and as wicked and mischieuous withall: For at what time as *Antonie* prepared the expedition and journey of *Aetium* against *Augustus*, and stood in some doubt of jealousy of the said *Queen*; for al the fair shew that she made of gratifying him and doing him all pleasure, he was at his taster, & would neither eat nor drink at her table without assaie made. *Cleopatra* seeing how timorous he was, and minding yet to make good sport and game at his needlesse feare and foolish curiositie, caused a Chaplet to be made for *M. Antonius*, hauing before dipped all the tips and edges of the floures that went to it in a strong and rank poison, and being thus prepared, set it vpon the head of the said *Antonie*. Now, when they had sitten at meat a good while, and drunk themselves merrie, the *Queen* began to make a motion and challenge to *Antonie*, for to drink each of them their chaplets; and withall began vnto him in a cup of wine seasoned and spiced (as it were) with those floures which she ware her owne self. Oh the shrewd & vnhappy wit of a woman when she is so disposed! who would euer haue misdoubted any danger of hidden mischiefe herein? Well, *M. Antonie* yeelded to pledge her: off goeth his owne Guirland, and with the floures minced small, dresseth his own cup. Now when he was about to set it to his head, *Cleopatra* presently put her hand betweene, and staied him from drinking, and withall vttered these words, My deare heart and best beloued *Antonie*, now see what she is whome so much thou dost dread and stand in feare of, that for thy security there must wait at thy cup and trencher extraordinary tasters; a strange and new fashion ywis, and a curiosity more nice than needfull: lo, how I am not to seek of means and opportunities to compass thy death, if I could find in my heart to liue without thee. Which said, she called for a prisoner immediately out of the goale, whom she caused to drink off the wine which *Antonie* had prepared for himselfe. No sooner was the goblet from his lips againe, but the poor wretch died presently in the place: but to come again to the Physicians who haue written of floures besides those abouenamed. *Theophrastus* among the Greekes hath taken this argument in hand. As for our countrymen, some haue entituled their bookes * *Anthologicon*: but none of them all, so farre as euer I could find, wrote any Treatise concerning floures. Neither is it any part of my meaning at this present to make *Nossgaies*, or plat any Chaplets, for that were a friuolous and vaine peece of work: but as touching floures themselves, I purpose to discourse so much as I think and find to be memorable and worth the penning. But before I enter into this Treatise, I am to aduertise the Reader, that we Romanes are acquainted with very few garden floures for Guirlands, and know in manner none but Violets and roses.

* Of floure gathering.

¶ Of the Rose employed in Coronets. The diuers kinds thereof: and where it is set and groweth.

The plant whereupon the Rose doth grow is more like a thorn or bush, than a shrub or any thing else. For it will come of a very Brier or Eglantine also, where it wil cast a sweet and pleasant smell, although it reach not far off. All Roses at their first knitting seeme to be inclosed within a certain cod or huske full of graines: which soon after beginneth to swell and grow sharp pointed into certain green indented or cut buds: then by little and little as they wax red, they open and spread themselves abroad, containing in the midst of their cup as it were certain small tufts or yellow threds standing out in the top. * Vsed they are exceeding much in Chaplets and Guirlands. As touching the oile Rosat, made by way of infusion, it was in request before the destruction of Troy, as may appeare by the poet *Homer*. Moreover, Roses enter into the composition of sweet ointments and perfumes.ouer and besides, the Rose of it selfe alone as it is, hath medicinable vertues, and serueth to many purposes in physick. It goeth into emplastres and collyries or eye-salues, by reason of a certain subtil mordacitie and penetratiue qualitie that it hath. Furthermore, many delicate and dainty dishes are serued vp to the table, either couered and bestrewed with Rose leaues, or bedewed and smeared all ouer with their iuice; which doth no harme to those viands, but giue a commendable tast thereto. We at Rome make most account of two kinds of Roses about the rest, to wit, those of *Præneste*, and of *Capua*. And yet some haue ranged with these principal Roses, those of *Miletum*, which are of a most liuely and deep red colour, and haue but twelue leaues in a floure at the most. The next to them are the *Trachinian* Roses, not so red all out. Then those of *Alabanda*, which be of a baser reckoning, with a weak colour inclining to white. Howbeit the meanest and worst of all, is the Rose * *Spineola*. Most leaues in number it hath of all others, and those in quantity smaller. For this would be knowne, that Roses differ one from another either in number of leaues, more or lesse; or els that some be smooth, others rough and prickly: also in colour and smell. The fewest leaues that a Rose hath be fine: and so upward they grow euer still more and more, vntill they come to those that haue an hundred, namely about *Campaign* in Italy, and neere to *Philippus* a city in Greece, whereupon the Rose is called in Latine *Centifolia*. Howbeit, the territorie of *Philippi* hath no such soile as to bring forth these hundred-leafe Roses: for it is the mountain *Pangæus* neare adioyning, vpon which they naturally doe grow, with a number of leaues I say; but the same small: which being remoued & transplanted by the neighbor borderers, do mightily thriue in another ground, namely about *Philippi* aforesaid, & proue much fairer than those of *Pangæus*. Yet are not such Roses of the sweetest kind, that are so double and double againe, no more than those which are furnished with the largest and greatest leaues. But in one word, if you would know a sweet smelling rose indeed, chuse that which hath the cup or knob vnder the floure, rough & prickly. *Cepio*, who liued in the time of *Tiberius* the Emperour, was of opinion, That the hundred-leafe Rose had no grace at all in a garland, either for smel or beauty; & therefore should not be put into chaplets, vntill it were last in maner of a tuft, to make a sur-croist, or about the edges as a border: no more than the Rose *Campion*, which our men call the Greek Rose, and the Greekes name *Lychnis*, which lightly groweth not but in moist grounds, and neuer hath more than five leaues. The floure exceeds not the bignes of a certain violet, and carieth no sent or savor at all. Yet is there another Rose called *Græcula*, the floures & leaues whereof are folded and lapped one within another, neither wil they open of themselves, vntill they be forced with ones fingers, but looke alwaies as if they were in the bud, notwithstanding that the leaues when they be out are of all others largest. Moreover, there be Roses growing from a bush that hath a stalk like a Mallow, and beareth leaues resembling those of the oliue: and this kind is named in Greek *Moscheuton*. Of a middle sise between these abouenamed, is the Rose of *Autumne*, commonly called *Coroneola*. And to say a truth, all the said Roses, except this *Coroneola*, and that which groweth vpon the brier or Eglantine before-named, haue no smell with them in the whole world naturally, but are brought to it by many deuises & sophistications: yea, & the very Rose of it selfe, which of the own nature is odoriferous, carieth a better smell in some one soile than in another. For at *Cyrene* they passe all other for sweetnes and pleasant favor.

* Vt eis proptimius.

* Our white Rose.

favor: which is the reason that the oile Rosat, and ointment compounded thereof, is most excellent there of all other places. And at Cartagena in Spain there be certaine timely or hastie Roses, that blow and floure all winter long. The climat also and temperature of the aire makes for the sweetnesse of the Rose: for in some yeares yee shall haue them lesse odoriferous than in others.ouer & besides, the place would be considered: for the roses be cuer more sweet growing vpon dry than wet grounds. And indeed the Rose bush loueth not to be planted in a fat and rich soile, ne yet vpon a vein of cley, no more than it liketh to grow neere vnto riuers where the banks be ouerflowed, or in a waterish plot; but it agreeth best with a light and loose kinde of earth, and principally with a ground full of rubbish, and among the ruines of old houses. The Campain Rose bloweth early and is very forward. The Milesian comes as late. Howbeit those of Præneste be longest ere they giue ouer bearing. As touching the maner of planting them: as the ground would be delued deeper than for corn, so a lighter ditch had need be taken than for Vine sets. Those that be sowed of seed be latest of all others ere they come vp, and thriue most slowly. [Now lieth this seed in the cup or husk thereof iust vnder the very floure, and is covered all ouer with a down.] And therefore it is better to fet sions cut from the stalk, or els to slip the little oilets and shoots from the root, as the maner is in reeds and canes. After which fort they vse to fet, yea & to graf one kind of a prickly & pale rose bush, putting forth very long twigs & shoot like to those of the Cinq-foile rose, which is one of the Greekish kind. There is no rose bush whatsoeuer, but prospereth the better for cutting, pruning, yea and burning. Moreouer, it loueth to be remoued and transplanted as well as the Vine, and by that meanes will it come to the proof and beare best. As for the sets or sions, they ought to be foure fingers long or more about the ground, when they be first put into the earth, to wit, after the occultation of the brood Hen star. Then would they be translated in Februarie, at what time as the Western wind Favonius is aloft, and replanted with a foot distance one from another: but they require to be euer and anon digged about the root. They that desire to haue Roses blow betimes in the yeare, before their neighbours, vse to make a trench round about the root a foot deep, and poure hot water into it, euen at the first when the bud of the Rose beginneth to be knotted.

CHAP. X.

¶ Of Lillies three kinds: and the maner of planting or setting them.

Next to the Rose, there is not a fairer floure than the Lilly, nor of greater estimation. The oiles also and ointments made of them both haue a resemblance and affinitie one to the other. As touching the oile of Lillies, the physitians call it Lirinon: & if a man should speak truly, a Lilly growing among Roses becommeth and beautifieth the place very well; for it beginneth then to floure when Roses haue halfe done. There is not a floure in the garden again that groweth taller than the Lilly, reaching otherwhile to the height of three cubits from the ground: but a weak and slender neck it hath, and carieth it not streight and vpright, but it bendeth and noddeth downward, as being not of strength sufficient to beare the weight of the head standing vpon it. The floure is of incomparable whitenesse, diuided into leaues, which without-forth are chamfered, narrow at the bottom, and by little and little spreading broader toward the top: fashioned altogether in maner of a broad mouthed cup or beaker, the brims or lips wherof turn vp somewhat backward round about, and lie very open. Within these leaues there appeare certain fine threds in maner of seeds: and iust in the midst stand yellow chiues like as in Saffron. As the colour of the Lilly is twofold, so carieth it a double smell; one in the leaues which resembleth the cup aforesaid, and another in those strings or chiues, howbeit the difference is not much. Now for to make the oile and ointment of Lillies, the leaues also are not reiected.

There is an herb named in Latine Convolvulus [i. with wind] growing among shrubs & bushes; which carieth a floure not vnlike to this Lilly, saue that it yeeldeth no smell, nor hath those chiues within: for whitenesse they resemble one another very much, as if Nature in making this floure, were a learning and trying her skill how to frame the Lilly indeed.

Now Lillies be fet and sowed after the same maner in all respects as the Roses, and grow as many waies. This vantage moreouer they haue of the roses, That they will come vp of the verie liquor that distilleth and droppeth from them, like as the herbe Alifanders: neither is there in

A the world an herb more fruitful, in so much as you shall haue one head of a root put forth oftentimes fise hundred bulbes or cloues.

There is besides a red Lilly, which the Greeks in their language call Crinon: and some name the floure of it Cynorrhodon. The excellent Lilly of this kind groweth in Antiochia & Laodicea, cities both in Syria: the next to that is found in Phaelis. In a fourth place, is to be set the Lilly growing in Italy. There are besides, purple Lillies, which otherwhiles rise vp with a double stem: these differ from the rest only in the pulpos root which they haue, and the same carrie a great bulbe in one entire head, and no more: such they call Daffodils. A second sort there is of these Daffodils with a white floure, & a purple cup or bel within. Herin differ Daffodils from Lillies, for that the Daffodil leaues be toward the root, & namely those in the best mountains of Lycia; whereas in Lillies they put forth in the stalk. The third kind agreeth in all points with the rest, but that the cup in the mids of the floure, is of a grasse greene. Al the sort of them be late ere they floure, and begin not to blow before the retreat of the star Arcturus, and about the Autumn Equinox: but such are the monstrous deuises of some fantastical spirits, that they inuented forsooth a new kind of artificiall * coloring and dying of Lillies: for which purpose, in the month of Iuly they gather their stems, when they begin to wither, & hang them vp in the smoke to drie. Now when the knobs or heads of their roots looke once bare and are shot out from the said stalks, (which commonly falleth out in the month of March) they infuse & steep them in the lees of deepe red wine, or some Greekish wine, for to suck and drinke in the colour thereof: which done, they set them in little trenches, whereinto they poure certaine hemines or pints of the said wine: and by this means become the Lillies aforesaid, purple. A strange and wonderfull matter that any root should take a tincture so deep, as to bring forth a floure of the same die and colour.

CHAP. VI.

¶ Of the Violet and the Marigold: of Bacchar, and Combretum: of Azara-bacca, and Saffron.

IN the third ranke of floures, be ranged the * Violets: whereof be many kinds: to wit, the purple, the yellow, and the white. All of them may be set of plants, like as worts, and garden pot-herbs. But of those which naturally come vp & grow of their own accord in leane grounds, and those exposed to the Sunne, the purple [March] Violets, they haue a broader leafe than the rest, & those spring immediately from the root, which is pulpos and fleshy. These alone be distinct from the rest by a Greek name, and are called * Ia; whereupon purple cloth is likewise of them named Ianthina. But of those which are sowne or set by hand, the * yellow beare the greatest name about all other. These floures be distinguished into diuers kinds, namely, into the Tuscan Violets; and those of the sea, which haue a broader leafe but are not so sweet as others. Some smell not at all, to wit, the * Calathian Violet with the small leafe, a floure this is that Autumne yeeldeth, whereas the rest doe flourish in the Spring.

Next vnto the Violet, are the Marigolds, all of one colour. In number of leaues this floure passeth the Sea-violet aforesaid, which neuer exceedeth fise: but in recompence of that defect, this Violet goeth beyond the Marigold, in sweet fauour, for the Marigold carrieth a strong sent with it and an vnpleasant. As for the hearb called * Scopia regia, it hath a smell nothing milder than it; although the leaues (to say a truth) doe smell, and not the floures.

Bacchar is named by some Rustick Nard: this plant hath nothing in it odoriferous and senting well, but the root. Of which root, (as Aristophanes an auncient Comical Poet testifieth in one of his Comedies) they were wont in old time to make sweet perfumes and odoriferous compositions for their ointments: whereupon some there be who call the root Barbarica, but falsly; for deceiued they are. The fauour that this root doth cast, draweth very neere to the sent of Cinamon. It loueth a leane and light soile, and in no wise commeth vp in a moist ground.

As touching the hearb named Combretum, it resembleth the same very much: howbeit the leaues be passing small and as slender as threds, but the plant it selfe is taller than Bacchar: well, rest we must not in the description of these hearbes and floures only, but also we are to reforme and correct their error, who haue given to Bacchar the name of Nard-rustick: For there is another hearbe properly so called, to wit, that which the Greeks name Afaron, [i. Asara-bacca, or

* Inficendi.

* Note that Violets in Plinie and other authors, reacheth to our Stock-gilloses, wall-floures and other floures, as to the purple March Violet. * Chiri, or Wal floures. * Sometime it for a kind of Foxe gloue.

* Which some take for yellow Yarrow?

Fole-foot;] a plant far different from Bacchar, as may appear by the description therof, which I haue set down among the fundrie kinds of Nardus. And verily I do find, that this plant is named * Astarum, because it is neuer vsed in making of guirlands and chaplets.

Concerning Saffron, the wild is the best. To plant it within any garden in Italie, is held no good husbandry, for it will not quit cost, considering there is neuer a quarter set therewith, but it asketh a * scruple more in expence, than the fruit or increase commeth to, when all the cards be told. For to haue Saffron grow, you must set the cloues or bulbous heads of the root: and being thus planted, it prooueth larger, bigger, and fairer than the other: howbeit sooner far it doth degenerate and become a bastard kind: neither is it fruitfull and beareth chiues in euerie place, no not about Cyrene, where the goodliest floures of Saffron in the world are to be seen at all times. The principal Saffron groweth in Cilicia, and especially vpon the mountain Corycus there: next to it, is that of Lycia, and namely vpon the hill Olympus: and then in a third degree of goodnesse, is reckoned the Saffron Centuripinum in Sicily: although some there bee, who attribute the second place vnto the saffron of the mount * Phlegra. Nothing is so subject to sophistication as Saffron, and therefore the only triall of true Saffron indeed, is this. If a man lay his hands vpon it, he shall heare it to cracke as if it were brittle and readie to burst: for that which is moist (a qualitie comming by some indirect means and cunning cast) yeeldeth to the hand and makes no words. Yet is there another prooffe of good Saffron. If a man after hee haue handled it, reach his hand vp presently to his mouth, & perceiue that the aire and breath therof smiteth to his face and eyes, and therewith fretteth and stingeth them a little, for then he may be sure that the saffron is right: there is a kind of garden saffron by it self, and this commonly is thought best, and pleaseth most, when there appeareth some white in the mids of the floure, and thereupon they name it Dialeucon; whereas contrariwise this is thought to be a fault and imperfection in the Corysian Saffron, which is chiefe: and indeed the floure of it is blacker than any other, & soonest fadeth. But the best simply in any place wherfoeuer, is that which is thickest and seemes to like best, hauing besides short chiues like hairs: the worst is that which smelleth of mustines. *Mutianus* writeth, that in Lycia the practise is to take it vp euery 7 or 8 yere, and remove it to a plot of ground wel digged and delued to a fine mould; where, if it be replanted, it will become fresh again and young, whereas it was ready before to decay and degenerate. Nowe there is in (any place) of Saffron floures in garlands; for the leaues are small and narrow, in manner almost of threads. Howbeit with wine it accordeth passing well, especially if it be of any sweet kind: and being reduced into powder and tempered therewith, it is commonly sprinkled ouer all the theatres, and filleth the place with a perfume. It bloometh at the setting out the floure. In the mids of winter, it is in the verdure and al green, and then would it be taken vp and gathered: which done, it ought to be dried in the shadow, and the colder that the shade is, so much the better. For the root of Saffron is pulpos and full of carnositie; and no root liueth so long about ground as it doth. Saffron loueth a life to be trampled and trod vpon vnder foot: and in truth, the more iniurie is done vnto it for to mar it, the better it thriue: and therefore neare to beaten paths; and wells much frequented, it commeth forward and prospereth most.

CHAP. VII.

¶ Of the floures vsed in old time about coronets and guirlands: the great diuersitie in aromaticall and sweet smelling simples. Of *Saliunca* and *Folium*.

Saffron was (no doubt) in great credit and estimation, during the flourishing estate of Troy; for certes, the Poet *Homer* highly commendeth these three floures, to wit, Melilot, Saffron, and Hyacinth. Of all odoriferous and sweet senting simples, nay of all hearbes and floures wharfoeuer, the difference consisteth in the colour, the smell, and the juice. And note this to begin withall, that seldome or neuer you shall meet with any thing sweet in sent, but it is bitter in tast; and contrariwise, sweet things in the mouth, be few or none odoriferous to the nose: And this is the reason that wine refined, smelleth better than new in the lees; and simples growing wild, haue a better fauor far than those of the garden. Some floures, the further they be off, the more pleasant is their smell: come nearer vnto them, their sent is more dull and weaker than it was

A was, as namely Violets. A fresh and new gathered rose casteth a better smell afar off than neere at hand; let it be somewhat withered and dry, you shall sent it better at the nose than farther off. Generally, all floures be more odoriferous and pleasant in the Spring, than at any other season of the yere: and in the morning they haue a quicker and more piercing sent, than at any houre of the day besides: the neerer to noon, the weaker is the smell of any herb or floure. Moreouer, the floures of new plants are nothing so sweet as those of an old stock: and yet I must needs say that floures smell strongest in the mids of Summer. As for Roses and Saffron floures they cast the pleasantest smell if they be gathered in cleare weather, when it is faire and dry about head: and in one word, such as grow in hot countries be euer sweeter to smell vnto, than in cold Climates. Howbeit in Egypt the floures haue no good sent at all, by reason that the aire is foggie and mistie, with the dewes rising from the riuer Nilus. Moreouer, certain floures there be that are sweet and pleasant enough, yet they stufte and fill the head. Others, so long as they be fresh and green, haue no smell at all, for the excessive abundance of moisture within them; as we may perceiue in Fenigreek, which the Grecians call Bucerós. Many floures cast a quick and liuely smell, and yet are not without good store of juice, but moist enough, as violets, roses, and saffron: but such as are destitute of such moisture, and yet their sent is piercing and penetrant, they all of them be of a strong fauor also, as for example the Lilly of both kinds: Sothernwood & Marjeram haue a hot and strong fauor. Some herbs there be which yeeld no smell nor goodnes at all but in their floure only, for all their other parts be dull and good for nothing, as violets and roses. Of garden herbes, the strongest of smell be alwaies dry, as Rue, Mints, and Ach or Parsley: likewise are all such as grow in dry places. Some fruits, the elder they be and the longer kept; the sweeter is their fauor, as Quinces: and the same Quinces *de gard* smell better when they be gathered, than if they hung stil vpon the tree and so preserved. Others there are, that vnles they be broken, bruised, rubbed, and crushed, haue no smell: and ye shall haue those that cast no sent at all, vnlesse their rind or bark be taken off: as also such as except they be cast into the fire and burnt, yeeld no fauor, as Frankincense and Myrhe. Furthermore, all floures being bruised, are more bitter than they were vntouched and vnhandled. Some after they be dry retain their odor longest, as the Melilot. There are that make the place sweeter where they grow, as the floure de lis, in so much as it perfume the whole tree (wharfoeuer it is) the roots whereof it toucheth. The herb *Hesperis* smells more by night than day, whereupon that name was deuised. * There are no liuing creatures which yeeld from their bodies a sweet fauor, vnlesse we giue credit to that which hath bin reported of the Panthers.

Furthermore this would not be passed ouer as touching the difference of odoriferous plants and their floures, in this respect, that many of them are neuer employed to the making of Guirlands and chaplets, as namely the Floure-de-lis and Nard Celticke, *Saliunca*, which although they yeeld both of them an excellent fauor, yet are not vsed that way. But as for the * Flour-de-lis, it is the root only therof that is comfortable for the odor: as if Nature had made the plant it selfe to serue only for physick vses, and compositions of sweet perfumes. The best Flour-de-lis is that which groweth in Illyricum or Sclauonia; and not in all parts thereof, not (I say) in the maritime coasts, but farther vp into the main, among the mountaines and forrests of Drilo and Narona. The next to it in goodnes commeth out of Macedon, and it hath the longest root of all others, but slender withall and whitish. In the third place is to be ranged the flour-de-lis of Africk or Barbary, which as it is the biggest in hand, so is it also the bitterest in tast. As touching the Illyrian Ireos, there be two sorts of it; namely, *Rhaphanitis*, which is the better of the twain, so called for the resemblance that it hath to the Radish root. The second they name *Rhizotomos*, and it is somewhat reddish. In sum, the best Ireos, if a man do but touch it wil proooke sneezing. The stem of the Flour-de-lis groweth streight and vp right to the height of a cubit. The floure is of diuers colours, like as we see in the rainebow, whereupon it took the name Iris. The Ireos of Pisidia is not reiected, but held to be very good. Moreouer, they vse in Sclauonia to be very ceremonious in digging vp the root of flour-de-lis; for 3 moneths before they purpose to take it forth of the ground, the manner is to poure meade or honied water round about the root in the place where it groweth, hauing before-hand drawne a threefold circle with a sword's point; as it were to curry fauor with the Earth, & make some satisfaction for breaking it vp and robbing her of so noble a plant: and no sooner is it forth of the ground, but presently they hold it vp aloft toward heauen. This root is of a feruent & caustick nature, for in the very

* *Scrupula* singula: which if you refer to a drachme signifieth a third part lesse; but if to an ounce, the 24 part.

* *Phlegreotus* Turus: readeth *Agro*, according to *Dioscor*.

* *Plinie* neuer heard of the Musk-goats nor Chinese cats in these daies.

* Commonly called *Ireos*.

handling it raiseth pimples and blisters in maner of a burn, vpon their hands that gather it. A-
 nother ceremonie also they haue in gathering thereof, for none must come about this worke,
 but such as haue lined chast and not touched a woman: this (I say) aboue all is obserued most
 precisely. This root about all others is most subiect to the worme, for not onely when it is dry,
 but also while it is within the earth, it quickly commeth to be worme-eaten. In old time the
 best Irinum or oile of Ireos was brought from the cape of Leucas and the city of Elis in Boeo-
 tia; for planted it hath bin in those parts many a yeare. But now there is excellent good com-
 meth out of Pamphylia: howbeit that of Silicia, and namely from the Septentrionall parts is
 most highly commended.

As for the plant Saliunca or Nard Celtick, ful of leaues verily it is, yet they be so short, that
 handfomly they cannot be knit and twisted for garlands: a number of roots it putteth forth, to
 which the floure or herbe groweth close: for surely a man would iudge it all herbe rather than
 floure, as if it were platted and pressed flat to the root with ones hand: and in one word, resem-
 bling a very thick tuft of grasse by it selfe. This herb groweth in Austria and Hungarie; also
 among the Morici, and the Alps on the Sun side. As for that which commeth vp about the ci-
 tie Eporthedia, it is so pleasant and odoriferous, that there is as much seeking after it as if it
 were some precious metall; and it yeeldeth a reuenue to the City no lesse than some metall
 mine. And in very truth, a singular herbe it is in a wardrobe to lie among good cloathes, for to
 get them a most pleasant and commendable sinell.

Another plant there is which the Greekes vse likewise in their Wardrobes, called Polium.
 This herbe *Museus* and *Hesiodus* the Poets extoll and set out to the highest degree; for they re-
 port that it is good for all things that it shall be employed about; but principally, that it auai-
 leth much to win men fame, renown, promotions, and dignities.ouer and aboue which vertues,
 miraculous it is (if it be true which they say) * that the leaues thereof in the morning seeme
 white, about noon purple, and at the Sun-setting blew. Two kinds there be of it, one groweth in
 the plains & champian grounds, and is the greater: another in the woods, and is the lesse. Some
 call it Teuthrion. The leaues resemble the gray haire of an old man, springing directly from
 the root, and neuer passe in height a hand breadth. Thus much may suffice concerning odorife-
 rous floures.

CHAP. VIII.

¶ The colours of Cloth resembling those of Floures, and striuing with them for the better. of
Amaranthus or *Passe-velours*: of *Chrysocome* or *Chrysis*.

THE excessive ryot and prodigall superfluitie of men is grown to this passe, that hauing ta-
 ken no small pleasure in surmounting the natural savor of simple floures, by their artifi-
 cial odors and compound perfumes; they cannot rest so, but must proceed also in the craft
 and mysterie of dying cloth, to challenge the fairest floures in the garden, and to match, if not
 to surpass, the lively colours of Natures setting. Of these tinctures I finde that there be three
 principal: the one in grain, which striueth with that bright orient colour in Roses: and there is
 not a more pleasant thing to the eye, than to see the Scarlet or purple of Tyros, or to behold
 the double died Dibapha, or the Laconian purple. The second rich dy stands vpon the Ame-
 thyst colour, and resembleth the March violet: this also beareth much vpon that purple, which
 of the said violet is called Ianthinus: for now I handle dies and colors in general terms, which
 neuertheless may be subdivided into many other speciall sorts. The third is ordinarily made
 of the purple & porcellane shel-fishes, and that in diuers & sundry maners; for of this tincture
 there are cloathes which incline much to the colour of Turnsole; and of these some be many
 times of a deeper and fuller dy than others. Also there is another sort which standeth much on
 the Mallow floure, inclining to a purple: and a third sort which resembleth the violet that com-
 meth late in the yere [called the purple stock-gillofre] and indeed this is the freshest & richest
 color that can be died out of those fishes aforesaid. Certes, the tinctures & dies now adaies are
 so lively, as wel for simple colors as mixt and compound (such artificiall means are deuised by
 our sumptuous gallants) than in this strife of Nature and art together, a man shal hardly iudge
 whether of them haue the better hand. As touching yellow, I finde that it is a most antient co-
 lour, and highly reputed of in old time: for the wedding vaile which the Bride ware on her ma-
 rying day, was all of yellow, and women only were permitted to vse them: which might wel be
 the

* *Disco*. repor-
 teth this of
Tripolium, and
 not of *Polium*,
 wherby it see-
 meth that *Pli-*
 ny is in a fault.

A the cause that this color is not reckoned among those that be principall, that is to say, common
 as well to men as women: for the wearing and vsing of colours indifferently by the one and the
 other, is that which hath giuen them their name and speciall credit. Howbeit, doe what we can
 for all our skill and industry we must giue place without all doubt to the purple floure-gentle,
 so we cannot reach possibly to the color thereof. Now to say a truth, a purple Spike rather this
 is than a floure, and the same altogether without any smell. Of a strange and wonderfull nature
 this is: it loues of all things to be cropped, and the more it is plucked, the better it commeth a-
 gain: it beginneth to spike or put out the floure in the month of August, and continueth vntill
 Autumne. The best is that of Alexandria, for after it is gathered, it will keep the fresh and lively
 colour still. This maruellous propertie it hath by it selfe, That when all other floures doe faile
 and are gone, if it be wet in water it looketh fresh againe; and for want of others, serues all win-
 ter long to make chaplets & guirlands. The chiefe and principall vertue that it hath, is shewed
 in the very name *Amaranthus*, for so it is called in Greeke, because it neuer doth fade or wither.

But to come again to our artificiall colors, we haue one that answereth to the floure named
Cyanos, i. blew bottle: likewise to the yellow golden floure *Elichryson*. Verily none of all these
 floures or colors were in request in the daies of K. *Alexander* the Great, for the Greeke authors
 who wrot next after his decease, haue made no mention at al of them, whereby it is plaine, that
 they grew into a name & liking since their time: howbeit no man needs to make doubt or que-
 stion, That found out they were first by the Greekes: for how els should it be, that their names
 which be meere Greekish, are currant here in Italy? Howbeit this cannot be denied, that Italie
 hath giuen name to the hearb *Petilium*, which floureth in Autumne, groweth about briars and
 brambles, and is only commendable for the colour sake, which is much like to the wild Rose
 or *Eglantine*: the leaues of which floure be small, and no more than fine. A wonderfull thing to
 be noted in this floure, Th at the head should bend and nod downward so, as vnlesse it bee thus
 (as it were) wreathed and bowed, the said leaues will not shew out of a small cup or vessell of
 sundrie colours, and enclosing within it a yellow seed.

As touching a daisy, a yellow cup it hath also, and the same is crowned as it were with a gar-
 land consisting of fine and fifty little leaues, set round about in manner of fine pales. These bee
 floures of the meadow, and most of such are of no vse at all, no maruell therefore if they be name-
 lesse: howbeit some giue them one tearme, and some another. As for *Chrysocon* or *Chrysis*,
 no Latine denomination it hath at all: an hearbe it is, growing an hand-breadth high, putting
 forth certaine buttons (as it were) in the head, glittering as bright as gold, with a black root, ta-
 sting harsh and yet sweetish withall: it groweth commonly in places full of stones & shadowy

CHAP. IX.

¶ The excellencie of Chaplets and Guirlands: of *Cyclaminus*, and *Melilot*: of
Trifolie or *Clay*, and three kinds thereof.

NOW that we haue gone through in manner the principall dies and richest colours that be
 it remaineth that we passe to the treatise of those Guirlands, which being made of diuers
 colored floures, in regard only of that varietie, are delectable & pleasing to the eye. And
 considering that some of them stand vpon flours, others of leaf, they may be all reduced to two
 principall heads. Among flours, I take to be all kinds of broom (for from them there be gather-
 ed yellow floures) and the Oleander. Item, the blossoms of the Iujube tree, which also is called
 Cappadocia, for they resemble much the odor of the oliue blooms: as for *Cyclaminus*, i. Sow-
 breed, it groweth among bushes, whereof more shall be said in another place: a purple Colos-
 sian flour it carries, which is vsed to beautifie & set out game: coronets. To come now to chap-
 lets made of leaues, the fairest that goe vnto them be * *Smilax* and *Iuy*, and therein also their
 berries interlaced among, do make a goodly shew aboue al: of which we haue spoken at large in
 the treatise of shrubs and trees. Many kinds there are besides of plants proper for this purpose,
 which we must be faine to expresse by Greeke names, forasmuch as our countrey men haue not
 bene studious in this behalfe, to giue any Latine names to the greatest part of them: besides,
 most of them are meere strangers in Italy, and grow in forrain parts: howbeit, looked for it will
 be at our hands that we should enter into the discourse of them also, for that our purpose & de-
 signe reacheth to all the works of Nature, and is not limited & confined within the bounds of

* Bindweed.

* With alba, of
some Glycy-
rrhiza, or in Didoes,
or others.
* Piburnum
statthioli.

Italy. Well then, to begin withall, * Melothron, Spireon, Trigonon, * Cneoron, which *Hyginus* G calleth Casia (affourd leaues very meet to make chaplets: so doth Conyza, called otherwise cunilago; Melyssophyllon named also Apiastrum, & Bawme; and Melilot, which wee commonly terme Sertula Campana; & good reason, for the best in Italy is that of Campain: & in Greece, that which groweth in the promontory Sunium. Next to these the Melilot of Chalcis & Candie is wel accepted of; but grow it in what countrey it wil, rough thickets and woods it delighteth most in. And that of this hearb they were wont vually in old time to make garlands, may appear by the very name Sertula, which it took therupon, and retaineth still. In fauor & floure both, it commeth neare to Saffron: the hearbe otherwise of it selfe is hoary and gray. The best Melilot is counted that which hath shortest leaues, and those most plump and fattie withall. H Semblably, the hearbe Trifoile or Clauer, hath leaues which go to the making of coronets and guirlands. And herof there be three kinds: the first is that which the Greeks call Mynianthes, others Asphaltion, hauing a bigger leafe than the rest; an hearbe that garden-makers commonly vse: the second with a sharpe leafe, called thereupon Oxytriphylon: the third, which is least of al other. Among these Trifoiles, I cannot but aduertise the reader, that some there be which haue strong and firme stems: as neruous as those of garden Fennell and Fennell wild, yea and as stiffe as those of Myophonos. But to returne againe to our chaplets, there bee employed about them, both the maine stalkes of Ferula, as also the berries and purple floures of the Iuie. There is besides a kind of them, like vnto the wild roses: and in them verily the colour only is delectable, for odour they haue just none. To conclude, of Cneoron there be two kinds, the blacke and the white: both well branched and full of leaues, but the white is most odoriferous: and as well I the one as the other, doe flourish after the Aequinox in Autumne.

CHAP. X.

¶ Of *Oryganum*, and *Thyme*: of the Athenien honey: of *Conyza*, and *Iupiters*.
floure, of *Southernwood* and *Camomile*.

AS many sorts also there be of *Origanum*, seruing to make guirlands: as for one of them, it hath no seed; but the other which is sweet, is called *Origan* of Candy. In like manner, two kinds there be of *Thyme*, to wit, the white and the blacke: this hearb doth flourish about the Summer Solstice, at what time as Bees also begin to gather honey from it: and according K to the flourishing of it more or lesse, a man may guesse ful well what season there wil be for honey: for honey-masters and such as keep Bees, hope to haue a good yere of honey when they see the *Thyme* to bloume abundantly. *Thyme* canot well away with rain, and therefore it taketh harme by shoures and sheddeth the floure. *Thyme* seed lyeth so close, that vnneeth or hardly it can bee found; whereas the seed of *Origan*, notwithstanding it be exceeding smal, is euident enough and may soone be seene. But what matter maketh it, that Nature hath so hidden the seed, considering it is wel known, that it lyeth in the very floure, which if it be sown, commeth vp as well as any other seed? See the industrie of men, and how there is nothing but they haue made trial of and put in practise! The honey of Athens carrieth the name for the best honey in the world, by reason of the *Thyme* growing thereabout. Men therefore haue brought ouer into other countries, *Thyme* out of Attica, although hardly and with much ado (being sown thus in the floure as I haue said) it commeth vp. But there is another reason in Nature, why it should thriue so badly in Italy, or elsewhere, considering that the Atticke *Thymewil* not continue & liue, but within the aire and breath of the sea. Certes this was an opinion receiued generally of our auncient fore-fathers, That no *Thyme* would doe well and prosper, but neere vnto the Sea, which should be the cause, that in Arcadia there is none of it to be found. And in those daies also, men were verily perswaded, that the Oliue would not grow but in the compasse of three hundred stadia from the Sea side: howbeit, in this our age verily we are aduertised and know for certain, That in Languedoc and the prouince of Narbon, the very stonie places are all ouergrowne and covered with *Thyme*, vpon which there are fed thousands of sheepe and other cattaille: in such M sort, as this kind of herbage and pasturage, yeeldeth a great reuenue to the inhabitants and payants of that countrey, by joisting and laying in of the said beasts brought thither out of far remote parts for to feed vpon *Thyme*.

Concerning the hearbe *Conyza*, which goeth also to the making of Chaplets, there be two kinds

A kinds likewise of it, namely, the male & the female. And these differ onely in leaues: for those of the female *Conyza* be thinner, smaller, narrower, and growing closer together than the other of the male, which indeed branch and spread abroad more, lapping one ouer another in manner of crest tiles. The floures also of the male *Conyza* is more bright and liuely: howbeit, both the one and the other floure late, and not before the rising or apparition of the star Arcturus. The male carrieth a strong sent: but that of the female is more penetrant; in which regard the female is better for the bite and sting of venomous beasts. The leaues of the female, smell of Honny. The root of the male, is by some called Libanotis, whereof we haue already written.

As touching these herbs following, * *Dios Anthos*, Majoran, the day Lillie *Hemerocalles*, B Sothernwood, Elecampane, water Mints, and wild running *Thyme*, as also all which do branch and put forth thoots as *Roses* do, such serue only in lease for garlands. As for the said *Iupiters* floure or *Dios Anthos*, particularly, there is nothing in it but the colour to commend it; for fauor it hath none, no more than another herb which the Greeks call *Phlox*. As for the rest, their floures and branches both be odoriferous, except the running wild *Thyme*.

Elecampane, named in Greeke *Helenium*, sprang first (as men say) from the teares of *Ladie Helena*: and therefore the best Elecampane is that which groweth in the Island of *Helena*. The plant is leaied like vnto wild *Thyme*, spreading & running low by the ground with little branches, nine inches or a span long.

Sothernwood doth flourish in Summer, and carrieth a sweet and pleasant fauor, howbeit, the head it fomewhat stuffeth and offendeth. The floure is of a golden colour. And say, that it carrieth neither seed nor floure, yet commeth it vp of it selfe in void and vacant places altogether neglected and without any culture, for it doth propagat and increase by the tops and tips of the branches lying vpon the ground, and so taking root. And therefore it groweth the better if it be set of root or slip, than sowed of seed. For of seed, much adoe there is to make it come vp: and when it is aboue ground, the yong plants are removed and set, as it were in *Adonis* gardens, within pots of earth; and that in Summer time, after the maner of the herb and floure *Adonium*: for as well the one as the very tender, and can abide no cold: and yet as chill as they be, they may not away with ouer-much heat of the Sun, for taking harme. But when they haue gotten head once and be strong enough, they grow and branch as * *Rue* doth.

Much like vnto Sothernwood in sent and finell, is *Camomile*: the floure is white, consisting D of a number of pretty fine leaues set round about the yellow within.

CHAP. XI.

¶ Of *Marioram*, the greater and the lesse, called in Latine *Amaracus* or *Sampsuchum*. Of *Nyctygetum*, *Melilot*, the white *Violet*: of *Codiaminum*, and wild *Bulbes*: of *Heliochrysum*, and *Lychnis* or *Rose Campain*. And of many other herbs growing on this side the sea.

D Iacles the Physitian, and the whole nation in maner of the Sicilians, haue called that herb *Amaracus*, which in Egypt and Syria is commonly named *Sampsuchum*. It commeth vp both waies, as well of seed as of a slip and branch. It liueth and continueth longer than the herbs before named, and hath a more pleasant and odoriferous sent. Marjoram is as plentiful in seed, as Sothernwood; but whereas Sothernwood hath but one tap root and the same running deep into the ground, the rest haue their roots creeping lightly aloft and ab within the earth. As for all the other herbes, they are for the most part set and sowne in the beginning of the Autumne; some of them also in the spring, and namely in places which stand much in the shade, which lone to be well watered also and enriched with dung.

As touching *Nyctygetum* [or *Lunaria*] *Democritus* held it to be a wonderfull herb, and few like vnto it, saying that it resembleth the colour of fire, that the leaues be prickly like a thorne, that it creeps along the ground: he reporteth moreover, That the best kind thereof grows in the lad *Gedrosia*. That if it be plucked out of the ground root and all after the Spring Aequinox, and be laid to drie in the Moonshine for 3 daies together, it will giue light and shine all night long; also, That the Magi or Sages of Persia, as also the Parthian kings vse this herb ordinarily in their solemn vovres that they make to their gods: last of all, That some call it *Chenomychos*, because Geese are afraid of it when they see it first; others name it *Nyctilops*, because in the night

* or *Iouls Filioi*, which some take to be the *Columbines*.

* *Helenium* here described agreeth not with our *Elecampane*.

* *Ruta vicia*.

night season it shineth and glittereth afarre off. As for Melilote, it commeth vp eue ry where : G
howbeit, the best simply & wherof is made the greatest account, is in Attica: but in what place
soeuer it growes, that is most acc pted which is fresh & new gathered, not enclining to white,
but as like vnto Saffron as is possible. And yet in Italie the white Melilote is the sweeter and
more odoriferous.

The first floure bringing tidings of the springs approach, is the white bulbous stock-Gillofre.
And in some warmer climates they put forth and shew euen in Winter. Next vnto it for their
timely appearance is the purple March Violet: and then after them the Panse, called in Latine
Flammea, and in Greeke Phlox, I meane the wild kind onely.

Codiaminon bloweth twice in the yeare, namely, in the Spring and the Autumne: for it can-
not abide either Winter or Summer. Somewhat later than those before rehearsed, are the Daf- H
fodil and Lilly ere they flour, especially in countries beyond sea. [in Italy verily (as I haue said
before) they bloum not till after Roses:] for in Greeke the Passe-floure * Anemone is yet more
lateward. Now is this Anemone the floure of certain wild Bulbes, different from that other A-
nemone whereof I will speake in the Treatise of Physick-hearbs. Then followeth * Oenanthe,
and Melanion, and of the wild sort Heliochryfos. After them, a second kind of Passe-flower or
Anemone, called also Leimonia, beginneth to blow. And immediatly vpon it the pety Gladen
or sword-grasse, accompanied with the Hyacinth: & last of all the Rose sheweth in her likenes.
But quickly hath the Rose done, and none so soone, and yet I must except the garden Rose. Of
all the rest, the Hyacinths or Harebels, the * stock-Gillo floure, and Oenanthe or Filipendula,
beare floures longest. But of this Oenanthe, this regard must bee had, that the floures bee often I
picked and plucked off, and not suffered to run to seed. This groweth in warme places. It hath
the very same sent that Grapes when they first bud and put out blossom, whereupon it took the
name Oenanthe. But before I leaue the Hyacinth, I cannot chuse but report the fable or tale
that goeth thereof, and which is told 2 maner of waies, by reason that the floure hath certaine
veines to be seen running in and out, resembling the two letters in Greeke AI, plaine and easie
to be read: which as some say, beroken the lamentable mone [*] that Apollo made for his wanton
minion Hyacinthus whome he loued, or as others make report, sprung vp of the bloud of Atax
who slew himselfe, and represented the two first letters of his name AI.

Helyachryfos beareth a yellow floure like to gold, a small and fine leafe, a little stalk also &
a slender, but hard and stiffe withall. The Magi or Sages of Persia vse to weare this hearbe and K
floure in their Guirlands: and they be fully persuaded, that by this meanes they shall win grace
and fauour in this life, yea, and attaine to much honour in glorie: provided alwaies, that their
sweet compositions wherewith they annoint and perfume themselves, be kept in a vessel or box
of gold, not yet fired nor purified in the fire; which gold they call Apyron. And thus much for
the floures of the Spring.

Now succeed and come after in their rank, the summer floures, to wit, Lychnis, Iupiters flow-
er or Columbine and a second kind of * Lilly: likewise Iphyon, and that Amaracus or Marje-
ram, which they cal the Phrygian. But of all others, the flower Pathos is most louely & beauti-
full: whereof there be two kinds, the one with a purple flower like vnto the Hyacinth, the other
is whiter, and groweth commonly in churchyards among graues and tombs, and the same hol-
deth on flourishing better, and liueth longer. The flower de-luce also is a Summer flower. These L
haue their time, fade, and are soone gone. And then come other flowers for them in their place
in Autumne, to wit, a third kind of Lillie, and Saffron: But of both these, the one is of a dull or
no sent at all: the other is very odoriferous, but all of them break out and shew abroad with the
first shower of rain in Autumne. Our chaplet makers vse the floures also of Bedegnar or white
Thistle in their Guirlands: and no maruell, since that our Cookes dresse the young tendrells
and crops thereof, for to make a daintie dish for to content our tast and goe pleasantly downe
the throat. Thus you see the order and manner of beyond-sea floures, how and when they come
abroad. In Italy it is somewhat otherwise: for the Rose followeth immediatly after the violets:
and when the Rose is in the mids of his ruffe, in comes the Lilly to bear him company. No soo- M
ner hath the Rose played his part, but the blew-blaw entereth the stage: and after him the Passe-
veluer or floure-gentle. As for the Pervincke, it continueth fresh and greene all the yeare
long: this hearbe windeth and runneth too and fro with her fine and slender twigges in man-
ner of threads or laces, and those beset with leaues two by two in order, at euery knot or joint.
Passing

* Pulsatilla or
Wind-floure,

* Filipendula
supposed of
some,

* or rather the
Wall-flower.

* Some read
Scrythus
rather,

A Passing good and proper indeed for vinet and story worke in borders, arbors or knots, and meet
for fine and curious Gardeners: howbeit, for default of other floures, the Garland-makers bor-
row a little of the law, and make vp their defects with a supply from it. The Greeks cal it Cha-
madaphne.

The life of the white Violet or bulbous stock-Gillofre, is three yeares at most, and so long it
holdeth the owne well, after that terme it doth degenerat and wax worier. The Rose-bush will
continue fise yeares, without cutting downe or burning (which are the meanes to maintaine it
in youth still.) But as we haue already obserued, there lieth very much in the soile, which would
be considered especially in floures: for in Egypt, none of all these aboue rehearsed, haue any o-
dor or sent at all; and yet the Myrtle trees there, they alone carry a most sweet and pleasant fa-
vor. Moreouer, in some tracts all these herbes and floures beforenamed, do preuent in budding
and blowing (two months) those of other places. As for Rose-rewes, the earth ought to be dig-
ged and opened about the roots, first presently vpon the coming of the Western wind Fauo-
nius in February, and then a second time about the Summer Solstice: to conclude, these would
be looked vnto aboue all things, that before and between those times, they be kept well pruned
and cleafed from all superfluities.

CHAP. XII.

¶ The order of nourishing and maintaining Bees. What meat is to be giuen them. Their
diseases, and the remedies to them belonging.

C IN this discourse of ours concerning gardens and gay floures appertaining to Garlands, re-
quisit it is to speak of bees and bee-hiues, which become the garden very wel: considering the
gain that commeth in so easily by them, especially when they stand and do well. In regard
therefore of these bees, to beneficiall as they be, and kept with so small charges, a garden ought
to be well planted and stored with Thyme, Baulme, Roses, Violets of all kinds, Lillies, sweet
Trefoile, Beanes, Eruille, Cunila or Sauerie, Poppies, Conyza, Casia, to wit, Lauander and Rose-
mary, Melilote, Melissophyllum, and Cerinthe. This Cerinthe is an herb bearing white leaues,
and those bending downward: it groweth a cubit high, and carrieth an hollow head, containing
within it a certaine sweet liquor resembling honey: bees are most eager and greedy after the
floure of this herbe, as also of Senuic; whereat we may well make a wonder, seeing that for cer-
taine they wil not touch nor come neere to the blossome of the Oliue trees. And therefore good
it is to set bee-hiues far enough from this tree. And yet of necessity some there would be plan-
ted neere vnto them, that when the bees do swarme or cast, they might haue a conuenient place
at hand to settle vpon, for feare they should flie too far from the hiue. The Cornell tree also is
not good for bees, for if they chance to tast the floure thereof, they fall presently into a vehement
lask, wherof the poore wretches (if they haue not help the sooner) die: and therefore it would not
stand in their way. Howbeit, there is a remedy to cure them of this flux, namely, to take soru-
ses and stamp them together with hony, and so to giue it them: to set vnto them either mans v-
rine or beasts stale or els last of all to serue them with graines of the Pomgranate, besprinkled
and drenched in wine of the Ammican grape: but if you set broome all about their hiues, you
do them an high pleasure:

E As touching their food and nourishment, I will tell you a wonderfull and memorable thing
vpon mine own knowledge. There is a towne or Burgade called Hostilia, scituate vpon the riuer
Po, the inhabitants of this village, when they see that their bees meat goeth low therabout, and
is like to faile, take me their hiues with bees and al, and set them in certain boats or barges, and
in the night row vp the said riuer Po against the streame fise miles forward. The morrow morn-
ing out go the bees to seeke food and reliefe. Now when they haue met with meat, and fedde
themselves, they returne againe to the vessels aforesaid: and thus they continue daily, although
they change their place and haunt; vntill such time as their masters perceiue that the hiues bee
full, by the setting of their boats low within the water with their weight, and then they returne
home againe downe the streame, and discharge the hiues of the honey within.

CHAP. XIII.

¶ Of a certaine venomous and poisonfull honey. The remedies as well against the said Honey, as another kind that maketh folke besides themselves.

Semblably in Spain they deale with their Bees & hives vpon Mules backs in the like case, and carry them vp into the countrey for to be provided of victuals. But here it would be considered by the way, what pasturage it is that they be put into; for that there is some kind of food, which poisoneth all the honey that is gathered from it. At Heraclea in Pontus, in some years, all the hony that the Bees do make, is found to be venomous and no better than poison; and yet the same bees in other yerres gather good and wholesome hony. Howbeit, those authors who haue deliuered thus much in writing, haue not set downe what floures they be that yeeld this hurtfull hony: and therefore I thinke it not amisse to write what I haue found and knowne as touching this point. There is an herbe called *Egolethron* in Greeke, which killeth horses verily, but Goats most of all, feeding therupon; and therefore it took that name: the floures of this herb, if it chance to be a wet and rainy Spring, do conceiue and ingender within them a certain deadly venome which doth corrupt and rot them. This may be a probable reason, that the foresaid mischief and bane is not alwaies felt alike. This poisonfome honey may be knowne by these signs: first it will neuer thicken but continue liquid still; secondly, the colour is more deep and reddish than ordinary; thirdly, it carrieth a strange sent or smell with it, and will cause one to sneeze presently; last of all, it is more ponderous and heauy than the good and harmlesse hony. The symptomes or accidents that insue vpon the eating of this honey, are these, They that haue tasted thereof, cast themselves vpon the ground and there fall a tumbling: they seek by all means they can to be cooled; and no maruell, for they run all to sweate, that one drop ouertakes the other. Howbeit, there be many remedies for this poison, which I will shew in place conuenient. Mean while, because a man would not be without some good thing ready at hand, since the world is so full of villany & set vpon such secret mischiefe, I must needs put down one good receipt, and that is this: take honied wine that is old, mingle and incorporat it with the best hony you can meet withal, and Rue together: vse this confection at your need. *Item*, Eat much of salt-fish, although it come vp again, and that your stomack do cast it. Moreouer, this hony is so pernicious, that the very dogs if they chance to lick vp any excrements that passe from the partie so infected (either by reaching, spitting, vomit, or seege) they are sure to be sped therewith, and to feele the like torments. Howbeit, the honied wine that is made therewith, if it may haue age enough and be stale, is knowne for a certainty to do no creature harm. And there is not a better medicine in the world, either to fetch out spots in womens faces, and make their skin faire and cleare (if it be applied with Costus;) or to take out the black and blew marks remaining after stripes in eye or elsewhere, so it be tempered with Aloe. Another kind of honey there is in the same region of Pontus, and namely among the Sanni (a people there inhabiting) which because it driueth folke into a fit of rage and madnesse, they call in Greeke *Manomenon*. Some attribute the occasion hereof to the floure of the Oleander, whereof the woods and forrests there be full. This nation selleth no hony at all, because it is so venomous and deadly: notwithstanding they do pay for tribute a huge masse of wax vnto the Romans every yeare. Moreouer, in the kingdome of Persis, and in Getulia, which lieth within Mauritania *Cæsariensis*, a country confining and bordering vpon the Massæuli, there be venomous hony-combs; yea, you shall haue in one hive some hony-combs full of poisoned hony, whereas others be sound and good: a dangerous thing no doubt, and than which, there could be no greater deceit to poison a number of people; but that they may be known from the rest by their leaden and wan hue that they haue. What should we think was Natures meaning and intent by these secret sleights and hidden mischiefs, That either the same Bees should not every yeare gather venomous hony; or not lay the same vp in all their combs differently? Was it not enough that she had bestowed vpon vs a thing, wherein poyson might be soonest giuen and least perceived? Was the not content thus to iudanger our liues, but she must proceed farther, enen to incorporat poison her selfe in hony, as it commeth from the Bee, for to empoison so many liuing creatures? Certes, I am of this mind and beleefe verily, That shee had no other purpose herein, than to make men more warie what they eat, and lesse greedy of sweet meats to content and please the tooth. For the very honey

A honey indeed she had not generally infected with this hurtful quality, like as she had armed all Bees with sharp pricks and stings, yea, and the same of a venomous nature; and therefore against these creatures verily she hath not deferred and put off to furnish vs with a present remedy: for the juice of Mallowes or of Yvie leaues serueth to annoint the stinged place, and keep it from rankling, yea, and it is an excellent thing for them that be stung, to take the very Bees in drink, for it is an approued cure. But this I maruell much at, That the Bees themselves, which feed of these venomous herbs, that cary the poison in their mouths, and are the makers of this mischievous honey, do escape and die not thereof? Whereof I can giue no reason at all, vnlesse dame Nature, that lady and mistresse of the world, hath giuen vnto these poore Bees a certaine Antipathy and vertue contrary vnto poison: like as among vs men to the *Marfi* and *Pssylli*, these hath imprinted (as it were) a repugnancy in their bodies, to resist the venome of all Serpents whatsoever.

CHAP. XIII.

¶ Of a certaine kind of honey which Flies will not touch. Of Bee-hives. How to order the same, and namely when Bees want meat and are in danger to be famished. The manner also of making Wax.

There is in Candy another strange and wonderful thing, as touching hony, gathered about the mountaine Carina, which taketh nine miles in compasse: within which space and circuit of ground, there is not a Flie to be had; and the honey there made, Flies wil not touch in any place wherefoeuer. By which experiment, this honey is thought to be singular for medicines, and therefore choise is made thereof before any other.

As touching Bee-hives, they ought to stand on the open side vpon the *Æquinoctiall* Sunne rising, that is to say, when the daies and nights be equall. And in any wise, regard would be had, that they open not in the Northeast, and much lesse the full West. The best Bee-hives be made of barks and rinds of trees: the second in goodnesse be those of Ferula or Fenell-geant. In the third place are such as be wrought of oifer twigs. Many haue made them of Talc, which is a kind of transparent glasse stone, because they would see through them how the Bees do worke and labor within. Daubed they should be if they were well serued, both without & within with Oxedung. The couer and lidde thereof ought to be moueable and haue liberty to play vp and

Down behind, that it may be let down far within-forth, in case either the hive be too large & of greater receipt in proportion than the Bees are in number; for feare they should slack their work and giue ouer their trauell, dispaireing euer to fill the same, seeing it so big and of so great capacity, and being thus let downe (to make their hive seem the lesse) it must be gently drawn vp again by little & little, that the Bees may be deceiued thereby, & not perceiue how their worke grows vpon them. In Winter time Bee-hives should be couered with straw: & oftentimes perfumed with beasts dung especially; for this is agreeable to their nature.ouer and besides, it killeth the wicked vermin that breed in them, Spiders, Butterflies, and Wood-worms; yea, and this property it hath moreouer, to stir vp and quicken the Bees, and make them more liuely and nimble about their businesse. As for the Spiders aforesaid, they verily are not so harmful, & be soon destroyed: but the Butterflies do the more mischief, & are not so easily rid away. Howbeit there is a way to chase them also, namely, to wait the time when the Mallow doth begin to blossom, to take the change of the Moone, and chuse a faire and cleare night, and then to set vp certaine burning lights just before the Bee-hives: for these Butterflies will couet to flie into the flame. But what is to be done, when you perceiue that the bees do want victuals; then it wil be good to take dry Raisins of the Sun, and Figs, to stamp them together into a masse, and lay it at the entry of the hive. *Item*, It were not amisse to haue certain locks of wool well touzed and carded, and those wet & drenched in cuit either sodden to the thirds, or to two thirds, or els soaked in honied wine, for them to settle vpon and suck. Also to set before them in their way the raw carcases of Hens, naked and pulled to the bare flesh. Moreouer, there be certain Summers so dry and continually without raine, that the fields want floures to yeeld them food, and then must they be serued with the foresaid viands, as well as in Winter season. When hony is to be taken forth of the hives, the holes and passages for the ingresse and egress of the bees ought to be well rubbed and besmeared with the herb *Melissophyllon* and *Genista* bruised and stamped: or else the hives must be compassed about in the middest with branches of the White Vine, for

* Considering that of a bees carcase they will be engendred.

for feare left the Bees depart and flie away. The vessels whereout hony hath been imploied, yea, and honey combes, would be well rinced and washed in water; which being thoroughly foddren, maketh a most wholesome and excellent vineger.

As touching wax, it is made of the combes after the hony is pressed and wrong out of them. But first they must be purified and clenfed with water, and for three daies dried in some darke place: vpon the fourth day they are to be dissolued and melted vpon the fire in a new earthen pot neuer occupied before, with so much water as will couer the combs: and then it should be strained through a panier of reeds or rushes, which done, the wax is to be set ouer the fire a second time in the said pot, and with the selfe same water, and foddren again, and then it ought to run out of it into other vessels of cold water, but those first should be al about within annointed and besmeared with honey. The best wax is that which is called Punica, *i.* of Barbary, and is white. The next in goodnesse is the yellowest, and smellth of hony, pure and clean without sophistication; such commeth from the country of Pontus; and verily I wonder much how this wax should hold good, considering the venomous hony whereof it is made. In the third place is to be ranged the wax of Candy: for this standeth much vpon that matter which they cal Propolis, wherof I haue already spoken in the Treatise of Bees and their nature. After all these, the wax of the Isle Corfyca may be reckoned in the fourth rank, which because it is made much of the Box tree, is thought to haue a vertue medicinable. Now the making & working of the first and best Punick white wax, is after this manner: They take yellow wax, and turne it often in the wind without the house in the open aire; then they let it seeth in sea-water, and namely, such as hath bin set far from the shore out of the very deep, putting thereto Niter; this done, they scum off the floure (that is to say, the whitest of it) with spoons; & this cream (as it wer) they change into another vessel, which hath a little cold water in it. Then once againe they boyle it in sea-water by it selfe alone, and set the vessel by for to coole. After they haue done thus three times, they let it dry in the open aire vpon an hurdle of rushes, in the Sun and Moon, both night and day: and this ordering bringeth it to be faire and white. Now in the drying, for feare that it should melt, they couer it all ouer with a fine Linnen cloth. But if they would haue it to be exceeding white indeed, they seeth it yet once more, after it hath bin thus sunned and mooned. In truth, this Punick white wax, is simply the best to be vsed about medicines. If one be disposed to make wax black, let him put therto the ashes of paper: like as with an addition or Orchanet it will be red. Moreouer, wax may be brought into all manner of colours, for painters, limners, K and enamellers, and such curious artificers, to represent the forme and similitude of any thing they list. And for a thousand other purposes men haue vsed thereof, but principally to preserue their walls and armors withall. All other things as touching Hony and Bees, haue bin handled already in the peculiar Treatise to them and their nature belonging. Here an end therefore of Gardens and Gardinage.

CHAP. XV.

¶ Of hearbs which come vp of themselves, and such especially as be armed with prickles.

It remaineth now to speake of certain wild herbs growing of their own accord, which in many nations serue for the kitchin, and principally in Ægypt; for this countrey, although it be most plentiful in corne, yet may seem to haue least need thereof, and of all nations vnder heaven best able to liue without the same: so well stored it is with hearbs, wherof the people doth ordinarily feed: whereas in Italy here, we know as few of that kind good to be eaten, namely, Strawberries, *Tanus, Rufcus, Crestemarine or Sampire, as also Batis Hortensiana, which some call French Sperage: we haue also the wild Parsheep of the meadowes, and the Hop, but wee vse them rather for pleasure and delight, and to giue contentment to our taste, than for any necessary food to maintain life. But to come againe to Ægypt, there is to be found the noblest plant of all others, Colocasia, which some name Cyamos, [*i.* the Egyptian beane:] this herbe they gather and cut downe out of the riuer Nilus: it putteth forth a main stem, which being foddren, yeeldeth in the eating and chewing, a certaine threddy matter or woolly substance, drawing out in manner of a cob-web; but the stalk as it groweth vp amid the leaues, maketh a faire and goodly shew: for indeed the said leaues be exceeding large, and comparable to the broadest that any tree beareth, resembling those for all the world of the Clote or great Burrhe growing in our

* The fruit or berry whereof is Vn'aminia

A vers, which we cal Personata. A wonderful thing it is to see, what store they in Ægypt set by the commoditie that their riuer Nilus doth afford: for of the leaues of this Colocasia (plaited & infolded naturally one within another) they make them cups of diuers forms and fashions, out of which they take no small pleasure to drink. And now adaeis this herb is planted here in Italy. Next to Colocasia, the Ægyptians make most account of that Cichory, which I named before, the wild and wandering Endiue, which herb commeth vp in that country after the rising of the Brood-hen star: it floureth not all at once, but bloweth by branches one after another: a supple and pliable root it hath, and therefore the Ægyptians vse it in stead of cords to binde withall. As for Anthallium, it groweth not in Nilus, but not far from the riuer: it beareth a fruit in bignesse and roundnesse resembling a Medlar, hauing neither kernell within, nor husk without: B and the leafe of this plant is like to Cyperus, or English Galangale. This herbe they vse to eat, being first * dressed and prepared in the kitchin. They feed likewise vpon Oetum, a plant that hath few leaues and those very small, howbeit a great root. Touching Aracida and Aracos; they haue many roots verily branching and spreading from them, but neither leafe nor herbage ne yet any thing els appearing aboue ground. And thus much of the chiefeest and greatest herbs of Ægypt serued vp to the table: the rest are common or vulgar, and euery mans meat, by name, Condrylla, Hypocheris, Causalis, Authriscum, Scandix (called by some Tragopogon, which beareth leaues like to Saffron,) Parthenium, Strychnum, Corchorus, and * Apace, which sheweth his head about the Æquinox: also Acinos, and that which they name Epipetron, and it neuer beareth floure; whereas Aphace contrariwise neuer giueth ouer flourishing, but when one floure is faded and shed, another commeth vp, and this course it holdeth all Winter long, throughout the Spring also, euen to the heat of Summer. Many other hearbs they haue of bate reckoning: but about all, they make greatest account of * Cnicus (an herbe not knowne in Italy) not for any good meat they find in it, but for the oyle drawne out of the seed thereof. Of this herb there be two principall kinds; to wit, the Wild, and the Tame: the Wild is subdiuided into two speciall sorts, the one of a more mild and gentle nature than the other, although the stalks of both be alike, that is to say, stiffe and streight vpright: and therefore women in old time vsed the stems thereof for rocks and * distaffes, whereupon some do call the herb Atractylis: the seed is white, big, and bitter. The second is more rough and hairy, creeping long on the ground, with stalks more muscous and fleshy, and carrieth a small seed. The herb may be ranged among those that be prickly: for so must herbs be diuided into such general heads; namely, D that some be full of prickles, others cleane without and smooth. As for those which stand vpon prickles, they be subdiuided into many members and branches. And to begin with a kind of Sperage, called also Scorpio, it hath no leafe at all, but instead thereof, prickles and nothing els: some there be leaved indeed, but those are beset with prickles, as the Thistle, Sea-holly, * Liquorice, and Nettle: for the leaues of all these herbs be prickly & stinging withall. Others, besides their leaues, haue prickles also, as the * bramble, & Rest harrow or whin. Some be provided of prickles both in leafe and stalk, as Phleas, which others haue called Stoebe. As for Hippophacet, it hath a prick or thorne in every joint: but the bramble Tribulus aforesaid, hath this property by it selfe, that the fruit also which it beareth, is set with prickles. Of all these sorts, the Nettle is best knowne, which carrieth certain goblets and concavities, and the same yeelding a purple kind of E downe in the floure, and it riseth vp sometimes aboute two cubits high. Many kinds there be of these Nettles; namely, the wild Nettle, which somewhat haue to be the female, and this is more milde than the rest. In this wilde kinde is to be reckoned also, that which they cal Cania, and is of the twain more agree, for the very stalk will sting, and the leaues be purfled as it were and jagged. But that Nettle which carrieth a stinking sauer with it, called is Herculanea. All the sort of them are full of seed, and the same blacke. A strange quality in these Nettles, that the very hairy downe of them (hauing no euident prickles sticking out) should be so shrewd as it is, that if one touch it neuer so little, presently there followeth a smarting kind of itch, and anon the skin riseth vp in pimples and blisters, as if it had been skalt or burnt: but well knowne F is the remedie of this smart, namely, to annoint the place with oyle. Howbeit this biting property that it hath, commeth not to it at the beginning when it is new come vp, but it is the heat of the Sun that fortifieth this mordacitie. And verily in the Spring when the Nettle is young and peepeth first out of the ground, they vse to eat the crops thereof for a pleasant kind of meat, and many be persuaded besides that it is medicinable, & therefore precisely & religiously feed thereupon;

* As Theophrastus saith, foddren in ale: hordeaceo Zytho.

* Thought to be Dent de lion

* Carthamus, or bastard saffron: but Turnebus supposes it to be put for Cici, whereof commeth Oleum Cicinum. * Celadon, though some read fustis, i. spindles.

* Glycyrrhizon but this agreeeth not with our Liquorice. * Tribulus. * Accatulus.

thereupon, as a preservative to put by all diseases for that present yeare. Also the root of the wild Nettle, if it be sodden with any flesh, maketh it to eat more tender. The dead nettle, which stingeth not at all, is called Lamium. As touching the herb Scorpio, I will write in the treatise of herbs medicinable.

CHAP. XVI.

¶ Of Carduus, and Ixine: of Tribulus and Anchusa.

* A kind of
thistle: some
call it Mans
blood.
* S. Mary
chalice.

The common Thistle is full of prickly hairs, both in leafe & stalk: likewise * Acorna, * Leucacanthos, Chalceos, Cnicos, Polyacanthos, Onopyxos, Ixine, & Scolymos. As touching the Thistle Chamæleon, it hath no prickles in the leafe. Moreover, these prickly hearbes are distinguished & different one from another in this, that some of them be furnished with many stems, and spread into diuers branches, as the Thistle: others againe rise vp with one maine stalk, and branch not as Cnecos. Also there be of them that be prickly only in the head, as the Eryngium or Sea-holly. Some floure in Summer, as Terralix and Ixine. As for Scolymus, late it is also ere it blow, but it continueth long in the floure. Acorna differeth from it onely in the red colour and fatter juice that commeth from it. Atractylis also might go for Scolymus, but that it is whiter and yeeldeth a liquor like blood: wherupon there be some who call it Phonos, i. Murderer: this quality it hath besides that it senteth strong: the seed also ripeneth late, & not before Autumne: and yet this is a property common to all plants of this prickly and thistly kind. But all these herbs wil come of seed and root both. As for Scolymus, it differeth from the rest of these Thistles herein, that the root, if it be sodden, is good to be eaten: besides, it hath a strange nature, for all the sort of them during the Summer throughout, neuer rest and giue ouer, but either they floure, or they apple, or els be ready to bring forth fruit: and look when the leaues begin to wither, their prickles lose their force and will not pierce.

Ixine * is a rare herb and geason to be seen, and not found growing in all countries alike. Immediately from the root it putteth forth leaues plenty; out of the mids of which root there swel- leth out a bunch like an apple, but the same is couered with the foresaid leaues: in the very top of which fruit there is contained a gum of a pleasant tast, called the thistle Mastick. Touching the herb Cactos, which groweth also in Sicily and nowhere els, it hath a property by it self; the stalks whereof shooting from the root, creep along the ground, and it carrieth a broad leafe full of prickles and thorns; and indeed these stalks thus running vpon the earth, the Sicilians call Cactos, which they vse to keep and preferue; and being thus condited also, they commonly eat, as very good meat. One stem it hath growing vpright, which they terme Pternix, as sweet & pleasant as the other, but it will not abide to be kept long. The seed thereof is couered with a certain soft down, which they call Pappos, which being taken off with the husk, there remaineth a tender kernell within, which they eat, & find it as delicat as the very heart of the Date tree top, which is called the Brain: and this pith aforesaid, the Sicilians name Afcalia.

The Caltrop thistle Tribulus, groweth not but in moory grounds and standing dead waters. Surely in other places, folke curse it as they passe by, the prickles and spurs stick out so dangerously: but about the riuers Nilus and Strymon, the inhabitants do gather it for their meat: the nature of this plant, is to lean and bend downward in the head to the water. The leafe resembles in form those of the Elme, and they hang by a long stele or taile. But in other parts of the world there be two other kinds of Tribulus: the one is leaved like vnto the Cichling pease; the other hath leaues sharp pointed; this second kind is later ere it floure, and commonly groweth about the mounds of closes lying by villages and town sides; the seed lieth in a cod rounder than the other, and black withall; whereas the former hath a * fandy seed. Of these thorny and prickly plants, there is yet one kind more, namely Ononis, i. Rest-harrow; for it carrieth prickles close to the very branches; the leafe is like to Rue: the whole stalk throughout is set with leaues disposed in manner of a garland. This plant commonly groweth after corn, it * plagueth the plough, and yet there is much adotorid it out of a ground, so loth it is to die. Of plants that be prickie, some haue their stalkes and branches trailing by the ground, as namely that hearbe which they call Coronopus, i. Harts-horn, or Buck-horne Plantaine: contrariwise, there stand vpright, Orchanet, the root whereof is so good to colour wax and wood red. And of such as be more gentle in handling * Camomile, Phyllanthus, Anemone, and Aphace. As for Crepis & * Apathe, their

* *Thouara. vi.*
sum est egubis
omnibus terris
vascitur: Ex
Theop. which is
clean contrary
to Pliny.

* *Agrostis*
for cornuside,
in Theophrast.
like the seed
of Salsina.
* And therefore
it is called *ra-*
stibonis or *ra-*
stibonis or *ra-*
stibonis, be-
cause it stanch
the draught of
the Ox at
plough.
* *Anthemus*.
* Deceit: so
called, because
the bitterneffe
deceiveth ma-
ny a plough-
ing like to a
kind of Ci-
chezie.

A stalks be all leafe. Moreover, this would be noted, that the leaues of herbs differ one from another, as well as in trees: some in the length or shortnesse of the stele whereto they hang; others in the breadth or narrownesse of the leafe it selfe; in form also, whereby you shal haue some cornered, others cut and indented; likewise in sent and floure, for some there be that continue longer in flourishing than others, and blow not all at once, but one part after another, as Basil, Torn-tall, Aphaca, and Onocheile.

CHAP. XVII.

¶ The difference of herbs in their leafe: what hearbes they be that floure all the yeare long: of the Asphodell, Pistana, and Petie-Gladen or Sword-grasse.

Many hearbes there be as well as some trees, which continue greene and hold their leaues from one end of the yeare to the other, as Torn-tall, and Adiantum or Capillus Veneris. Another sort there is of herbs that floure spike-wise, of which kind are Cynops, Alopecurus [i. Fox-taile] Stelephuros, which some call Ortyx, others Plantaine (of which I will write more at large among Physick herbs) and Thryollis. Of these, Alopecurus carrieth a soft spike, and a thick mossie down, not vnlike to Fox-tails, wherupon it tooke that name in Greeke: and Stelephuros resembleth it very much, but that the Fox-taile bloweth not all together, but beareth floures some at one time & some at another. Cichory and such like, haue their leaues spreading vpon the ground, and those put forth directly from the root, beginning to spring immediately after the apparition of the star Vergiliae. As touching Parietary, there be other nations as well as the Egyptians, who feed vpon it: it took the name Perdicium in Latine, of the bird Perdix, i. the Partridge, that seeketh after it so much, and plucketh it out of the wals where it groweth: it hath many roots and the same thick. In like maner, the herb Ornithogale, i. Dogs onion, hath a small stem and a white, but a root, * halfe a foot long, the same is full of bulbs like onions, soft also, and accompanied with three or foure other spurs growing out of it. This hearbe they vse to seeth among other pot-herbs for potage. I will tell you a strange quality of the herb Lotos and of Egilops; if their seed be cast into the ground, it wil not come vp in a yeare. As wonderfull is the nature also of the Camomile: for it beginneth to floure in the head, whereas all other herbes which blow not all at once, floure at the foot first. Notable is the Bur likewise and worthy to be obserued, I mean that which sticketh to our clothes as we passe by, the floure lieth close and groweth within the said Bur, and neuer appeareth without forth: it is I say as it were hatched within, much like vnto those liuing creatures that coue and quicken their egges within their belly. Semblably, about the city Opus there is an herb called Opuntia, which men delight to eat: this admirable gift the leafe hath, that if it be laied in the ground, it will take root; and there is no other way to plant this herb, & maintain the kind. As for Iasione, one leafe it hath and no more: but so lapped and infolded, that it seemeth as if they were many. Touching Condrylla, the herb it selfe is bitter; but the juice of the root is hot and biting. Bitter also is Aphaca or Dent de Lion; as also that which is called Picris, which name it took of the exceeding bitterneffe that it hath; the same floureth all the yere long. As for Squilla and Safron, they be both of a marvellous nature; for whereas all other hearbes put out leafe first, and then knit round into a stem, in those two a man may evidently see the stalk before the leafe. And in Safron verily, the said stalk thrusteth out the floure before it; but in the Sea-onion Squilla, first sheweth the stalk, and then afterwards the floure breaketh out of it. The same Squilla floureth thrice in the yeare, as I haue said heretofore, shewing thereby the three seasons of seednes. In the range of these bulbous and onion-rooted plants, some place the root of * Cyperus, that is to say, of Gladiolus [i. Petie-gladen, Flags, or Sword-wort], this is a sweet root, and being sodden or baked with bread, it giueth it a more pleasant tast; & besides, it mendeth the weight of bread wel if it be wrought & kneaded with it in dough. Not vnlike to it is that herbe which they call Thiesion, but that the root is harsh and vnpleasant. All others of the same kind differ in leafe: the Asphodell hath long and narrow leaues; Squilla is broad leaved, and may be handled without offence, whereas the Gladen leafe is like a sword blade indeed, and keen-edged according to the name [both in Greek and Latine.] The Asphodell seed is good to be eaten, if it be parched or fried; so is the bulbous root of it also; but this should be roasted vnder the embers, & then eaten with salt and oile.ouer and besides, if it be stamped with figs, it is an excellent dish; and this

* *Semipedali*,
Dioscor. hath
Sesquipedali,
a foot and a
halfe.

* *Cyperus*, or
the *Xyphium*, or
Phalangium.

* *Napis* : Diofcor. *Glandivus*, (i.) nuts or acornes.

indeed (according to *Hesiodus*) is the only way to dresse it. Moreouer, it is said, that *Asphodels* G planted before the gates of any ferme house in the countrey, preserve the place from all charms and forceries. *Homer* also the Poet hath made mention of the *Asphodell*. The root resembleth * *Naves* of a mean bignesse; and there is not another root with more heads, for oftentimes a man shal see 80 bulbs clustred in a bunch together. *Theophrastus* and all Greeke writers almost, and namely *Pythagoras* (the chiefe prince of Philosophers) describe this plant to haue a stem of one cubit in length, yea and oftentimes of two, with leaues like to wild *Porret*; and the sayd stem they called *Anthericon*; but the root, (i.) those bulbs resembling onions, *Asphodelas*; but our countrymen haue named in Latin, the stem *Albus*; but the root, *Hastula Regia*. This is the name also of the stalk, full of grains or berries; and thereof they would make two kinds [the male and the female.] Well, the stem of the *Asphodell* then, is commonly a cubit long, large and big, clean and smooth. Of this herb *Mago* hath written, and ordained, that it should be cut down in the going out of March and entrance of Aprill; namely, after it hath don flouring, and before that the seed be swelled and grown to any bignesse: then vpon the fourth day after, when the said stems are slit and clouen, they must be laid abroad to drie in the Sunne: when they be dried, they ought to be made vp into knitchers or handfuls. He saith moreouer, that the Greeks name that herb *Pistana*, which we cal in Latin *Sagitta*, growing in marshes and moores among other fenny weeds. This also would he haue to be cut downe and gathered, betweene the Ides of May and the end of the month of October: then, to be pilled, and so to be dried by little and little with the moderat heat of the Sun. The same author giueth order likewise, that the other kind of *Gladiolus*, which they call *Cypiros*, which also is an herbe growing about lakes and meeres, any time within Iuly should be cut downe to the very root; and the third day after, to be dried in the Sun vntill it looke white; but every day that it lieth abroad, it must be brought into the house before the Sun go downe; because all herbs growing vpon marsh grounds, take harm by dewes in the night.

CHAP. XVIII.

¶ Of *Rushes*, six kinds; and of *Cyperus*: their medicinable vertues. Of *Cypirus*, and the sweet *Rush Scamnanth*.

M *Ago* writing of the *Rush*, commonly called *Marifcon*, saith, That for to twist and weave K into mats, it ought to be gathered out of the marsh ground where it groweth, in Iune vntill mid-Iuly. As for the drying of it, the same order must be obserued in all points, as we haue set downe before in the discourse of other marais weeds. Hee maketh a second kinde of water *Rushes*, which I find to be called the sea *Rush*, and of the Greekes *Oxychoenon*; the sharp *Rush*; which also is subdiuided into three other sorts; for there is the barren *rush*, called also the male, & in Greek *Oxys*; the female *Rush* bearing a black seed, which they call *Melanocranis*. This is thicker than the other, fuller also of branches and tufts. And the third more than it, which is named *Holoschoenus*. Of all these, *Melanocranis* cometh vp of the own seed, without any other kinds intermingled with it; but *Oxys* and *Holoschoenus* grow both together out of one turfe. Of all others, the great *Rush Holoschoenus* is best for to be wrought in mats, and such like implements about an house, because it is soft and fleshy; it beareth a fruit hanging & clustering together in maner of fish spawn. As for that *rush*, which we called the male, it groweth of it selfe, by reason that his top fasteneth in the ground, and so taketh root by way of propagation; but *Melanocranis* soweth her owne selfe, and cometh vp of seed; for otherwise their race would perish, considering the roots of them all euery yere do die. These *Rushes* are vsed to make leaps and weels for fishers at sea, & fine & dainty wicker vessels; also candle-wick & matches; especially the marow or pith within, which is so great (especially about the foot of the Alps reaching to the sea-side) that when a *Rush* is slit, there is found in the belly a pith almost an inch broad by the rule. And in Egypt there be found *Rushes* so big, that they will serue to make sieues, rangers, and vans. In such sort, that the Egyptians can finde no matter for that purpose, better. Some there be, that would haue the triangled or three square *rush Cyperus*, to be a feuerall kind by it selfe. This *Cyperus*, many there be that cannot distinguish from *Cypirus*, by reason of the great affinity of their two names; but I mean to put a difference betweene them both; for *Cypirus* is the *Petrie-glader* or *Sword-grasse* (as I haue before shewed) with a bulbous or

A or onion root: the best of which kind groweth in the Island of Crete: next to it in goodnesse, is that of the Isle *Naxos*: and in a third degree, is to placed that of *Phoenice*: and indeed that of Crete or Candy, in * whitenesse and odor cometh neere to *Nard*. The *Naxian Cyperus* hath a quicker sent: the *Phoenician Cyperus* smelleth but a little: as for that in Egypt, it hath no fauor at all; for there also groweth *Cypirus*. But now to come vnto the properties thereof, it hath vertue to discusse and resolute hard swellings in the body. For now my purpose is to speake of their medicinable vertues, so far as much as there is great vse in Physicke, as well of such aromati, call simples, as odoriferous floures. As touching *Cypirus* therefore, I professe verily that I will follow *Apollodorus*, who forbiddeth expressly to take *Cypirus* inwardly in any drink: and yet he protesteth, that it is most effectuell for them that be troubled with the stone, and full of grauel; but, by way of fomentation onely. He affirmeth moreouer, that without all doubt it causes women to trauell before their time, & to slip their vntimely fruit. But one miraculous effect thereof he reports, namely, that the Barbarians vse to receiue the fume of this herb into their mouth, and thereby wast and consume their swelled Spleens: also, they neuer go forth of dores, before they haue drunk a pipe therof in that maner: for persuaded they are verily (saith he) that by this means they are more youthful, liuely, and strong. He saith moreouer, that if it be applied as a liniment with oile, it healeth all merry-gals and raw places where the flesh is rubbed off or chafed: it helpeth the rank rammyth smel vnder the arm-holes; and without faile cureth any chilling, nummesse, and through cold. Thus much of *Cypirus*.

C As for *Cyperus*, a *Rush* it is (as I haue said) growing square and cornered: neere the ground it is white; toward the top, of a dark blackish green, and fattish: the vnder leaues that be lowest, are slenderer than leek-blades; the vppermost in the head, are smal, among which is the seed: the root is like vnto a black oliue, which if it grow long-wise, is called *Cyperis*, and is of singular operation in Physick. The best *Cyperus* is that which groweth amongst the lands in Africke, neere the temple of *Iupiter Ammon*: in a second rank, is that of *Rhodes*: in a third place may be ranged the *Cyperus* in *Thracia*: and in the lowest degree, that of Egypt. And hereupon came the confounding of these two plants, *Cyperus* and *Cypirus*, because both the one and the other grow there. * But the *Cyperus* of Egypt is very hard, and hath no smell at all; whereas in the other, there is a fauor resembling the very *Spikenard*. There is another herb also comming from the Indians, called * *Cyperis*, of a feuerall kind by it selfe, in forme like vnto ginger: if a man chew it in the mouth, it coloureth the spittle yellow, like as *Saffron*.

D But to come againe to *Cyperus*, and the medicinable properties thereof, it is counted to haue a depilatory vertue for to seth off haire. In a liniment it is singular good for the excrecence of the flesh about the naile roots, or the departure and loosenesse thereof about them; which both imperfections be called *Pterygia*: it helpeth the vlcers of the secreet parts, and generally all ex-ulcerations proceeding of theumatick humors, as the cankers in the mouth. The root of *Cyperus* is a present remedy against the stinging of serpents, and scorpions specially. Taken in drink it doth desopilate & open the obstructions of the matrice; but if a woman drink too much thereof it is so forcible that it will driue the matrice out of the body. It prouoketh vrine, so as it expelleth the stone and grauell withall; in which regard also, it is an excellent medicine for the dropsie. A liniment thereof is singular for cancerous and eating sores, but especially for those that be in the stomach, if it be annointed with wine or vinegar tempered with it.

E As concerning the *rushes* before said, their root sodden in three hemines of water, vntill one third part be consumed, cureth the cough. The seed parched against the fire, and so drunk in water, staith the flux of the belly, and stoppeth the immoderat course of womens moneths; but it procureth head-ach. As for the *rush* called *Holoschoenus*, take that part of it which is next the root, and chew it; then lay it to the place that is stung with a venomous spider, it is an approved remedie. I find one sort more of *Rushes*, which they call *Euripice*; and this property withall, That it bringeth one to sleepe: but it must be vsed with moderation, for otherwise it breedeth drowsinesse, sib to the lethargy. Now seeing I am entred into the treatise of *rushes*, I must needs set down the medicinable vertues of the sweet *Rush* called *Squinanth*; and the rather, because (as I haue already shewed) it groweth in Syria surnamed *Coele*. The most excellent *Squinanth* cometh out of *Nabatea*, and the same is knowne by the addition or syname *Tenchites*. In a second place is that of *Babylon*. The worst of all is brought out of Africke, and it is altogether without smell. *Squinanth* is round, of an hote and fiery * taste, biting at the tongues end.

* *Candor*: some reade *Color*: in colour.

* No more hath *Cypirus* in Egypt, by his owne saying. * This *Cyperis* is taken to be *Curcuma*, or *Terramerita*, called therupon corruptely, *Turmericke*.

* *Ignis mordacitatis*.

The true Squinant indeed which is not sophisticated, if a man rub it hard, yeeldeth the smel of a Rose: and the fragments broken from it do shew red. As touching the vertues thereof, It resolueth all ventrosities, and therefore comfortable it is and good for the wind in the stomack: also it helpeth them that puke vp choler, or reach and spit bloud: it stinteth the yex, causeth rising and breaking wind vpward, it prouoketh vrine, & helpeth the bladder. The decoction thereof is good for womens infirmities, if they sit therein. A cerot made therewith, and dry rosin together, is excellent against spafmes and cricks that fet the neck far backward.

As concerning Roses, the temperature thereof is hot; howbeit they knit the matrice by an astrictiue quality that they haue, and coole the naturall parts of women. The vse of Roses is twofold, according to the leafe of the floure, and the floure it selfe (which is the yellow.) The head of the Rose leafe, to wit, the white part thereof, is called in Latine Vnguis, i. the Naile. In the yellow floure aforesaid, are to be considered seuerally, the seed, the hairy threds in the top, the husk and pellicle that couereth the Rose in the bud, & the cup within: & euery one of these haue their proper qualities & vertues by themselves. The leaues are dried, or the iuice is drawn and pressed out of them three waies: either all whole as they be, without clipping off the white nailes, for therein lyeth the most moisture: or when the said nailes are taken off, and the rest behind is infused in the sun, lying either in wine or oile within glasses, for oile rosat or wine rosat. Some put thereto salt, others mingle withall either Orchanet or Aspalathus, or els Squinanth: and this manner of iuice thus drawne and prepared, is very good for the matrice, and the bloody flux. The same leaues, with the whites taken away, are stamped, & then pressed through a thicke linnen cloth into a vessell of brasse; and the said iuice is sodden with a soft fire vnto the consistence of hony, and for this purpose, choise would be made of the most odoriferous leaues.

CHAP. XIX.

¶ The medicinable vertues of Roses: of the Lilly and Daffodill, called *Lauis tibi*. of the Violet, of Bacchar, Combretum, and Azarabacca.

How wine of Roses should be made, I haue shewed sufficiently in the treatise of diuers kinds of wines. The vse of the iuice drawn out of Roses, is good for the eares, the cankers, and exulcerations in the mouth, the gums, the Tonils or Amygdales, for gargarismes, for the stomack, the matrice, the infirmities and accidents of the tuil or fundament, and the head-ach. Taken alone, it is singular good for the ague, with vineger, for to procure sleep, & to restrain the heauing of the stomack, and the offers to vomit. The ashes of Roses burnt, serue to trim the haire of the eiebroes. Roses dried and reduced into powder, represseth the sweat betweene the * legs, if it be strewed vpon the place. Dried Rose leaues do represseth and stay the flux of humors into the eies. The floure [which is the yellow in the mids] procureth sleepe. The same taken inwardly with vineger & water, staieth the immoderat flux of women; and the whites especially: also it represseth the reaching and spitting of bloud. The pain of the stomack it appeaseth, being taken in three cyaths of wine. The seed or fruit of the Rose (which is of a Saffron colour) is best, so it be not aboue a yeare old, and the same dried in the shade. As for the black, it is nought and good for nothing. To rub the teeth with this seed, easeth the toothach: the same prouoketh vrine. Being applied to the stomack, it is comfortable: & so it helps *S. Anthonies* fire, if it hath not run too long. If it be drawn vp by the nostrils, it purgeth and clenseth the head. As for the heads or knobs, if they be taken in drinke, they knit and bind the belly, and withall, do stay the flux of bloud vpward. The whites or nailes of the Rose leafe be singular for waterish eies, so they be applied dry with bread crumbs: the leaues verily if they be brought only into a liniment, and outwardly applied, are reputed soueraigne for the queasinesse and pain of the stomack, for the gnawings and other accidents which the belly and guts be subiect vnto; also for the Midriff and other precordiall parts. Moreover, they are good to be eaten, if they be condite and preferred in manner of garden Dock or Patience. But in keeping of Rose leaues, an eie would be had to them, for fear least they grow to a mouldinesse, that quickly will settle vp them. Dried Rose leaues are of good vse in Physick, yea, the very Rose cake after the iuice & moisture is pressed out of the leaues, serueth for some purpose. For of them be made bags and quilts, yea, and drie pouders for to represseth sweat, and to palliat the strong smel therof: with this charge and caueat, that presently after that one is come out of the stouue or baine, the powder be suffered to dry vpon

* Siccis famina asperguntur: I doubt that Pliny read in Dioscorides, magis for purpur, (ie) Purgantia: and then it carrieth this sense; that dried Roses & powdered, enter into sweet ointments.

A vpon the body, and then afterward washed off with cold water. The wild Rose * leaues reduced into a liniment with Beares greafe, doth wonderfully make haire to grow again, where through some disease it is fallen away.

Lilly roots through their singular vertues and operations many waies, haue ennobled their own floures: for first and formost, if they be taken in wine, they be countrepoysons against the sting of serpents, and the venom of Mushrooms. Sodden in wine, and applied in maner of a cataplasme, and so bound to the feet, they mollifie and resolue the cornes; but this must not be vndone and removed in three daies. Boiled with greafe or oile, they cause haire to come againe euen in places that were burnt. If Lilly roots be drunk in honied wine, they do euacuat downeward at the siege with other ordure, the cluttered, bruised, and hurtfull bloud within the body.ouer and besides, in this manner they help the spleen, them that are bursten and bruised, & withall, bring down womens terms orderly. But if they be sodden in wine, and so laid to in forme of a cataplasme, they knit and heale sinues that were cut asunder. They rectifie running tetters and lepries, they scoure away dandruf and pilling skales in the face, they make the skin smooth and take away riuels and wrinkles. The leaues of Lillies boiled in vinegre are good to be layed to green wounds: reduced into a cataplasme with Hony, Henbane, and wheat meale, incorporate and vnited all together, and so applied to the cods, they represseth the flux of humors falling to those parts. The seed made into a liniment allayeth the heat of *S. Anthonies* fire. And in the same sort the floures and leaues applied doe heale old sores. As touching the iuice which is pressed forth of the floures, of some it is called Mel [i. hony;] of others Syrium: singular good for to soften and mollifie the matrice, for to procure sweat and to ripen impostumes tending to suppuration.

Now for Daffodils, there be two kinds of them admitted by the Physitians for to be vsed in medicine; the one with a purple floure, the other of a grasse green. This later Daffodil is aduerser and hurtfull to the stomack, and therefore causeth it to ouerturn and vomit: it setteth the belly also into a flux: contrary it is to the sinues, and stuffeth the head: for which narcoticke qualitie of stupifying & benumbing the senses, it took the name in Greek Narcissus, of Narce which betokeneth nummednesse or dulnesse of sense; and not of the yong boy *Narcissus*, as the Poets do feign and fable. The roots as wel of the one as the other Daffodil, haue a pleasant tast as it were of honied wine: the same is good for burns, applied to the place with a little honey: D and so it helpeth dislocations and healeth wounds. Moreover, a cataplasme made of it, honey, and oatmeale, doth resolue and ripen biles and great apostemations: and in that sort it drawes forth spils, shiuers, arrow heads, and thorns, and whatsoever stick within the body. Being stamped and incorporat with barley groats and oile, it cureth them that be bruised and smitten with a stone. Mingled with meale it cleanteth wounds, it scoureth the skin from all spots that disfigure it, yea and taketh away the black morpheu. Of this floure is made the oile Narcissinum, good to supple and soften all hard tumours, good also to reuiue and heat againe whatsoever is stark and benumbed with extreme cold. And aboue all, this floure is excellent for the eares, howbeit it maketh the head to ache.

Of Violets there be some wild and of the field: others domesticall, and growing in our gardens. The purple violets are refrigeratiue and do coole. And therefore a good liniment is made of them to be applied vnto an hot stomack, against burning inflammations. A frontall likewise may be made of them to be laid vnto the forehead. But a peculiar vertue they haue besides to stay the running and waterie eies: as also to help the procidence or falling downe both of tuill and matrice, and to reduce them again into their places. Moreover, being applied to swellings and impostumations, they resolue the same without any head or suppuration. Guirlands being made of violets and set vpon the head, resist the heauinesse of the head, and withstand the overturning of the brains vpon ouer-liberall drinking; yea, the very smel thereof will discusse such fumes and vapors as would trouble and disquiet the head. Violets being drunk with water, doe cure the Squinancie. That which is purple in the floure of the Violets, helpeth the falling euil, in children especially, if they drink it with water. Violet seed resisteth the poison of scorpions. F Contrariwise, the floure of the white Violet, to wit the bulbous stocke-Gilliflowre, is good to break all impostumat swellings, whereas March violets did resolue them. But as wel the white Violets as the yellow wall-floures, are singular good to extenuate the grosse bloud of womens terms, and to moue vrine. Violets, if they be fresh and new gotten, are not so effectuell for these purposes.

* or rather the spongie substance growing vpon the Cincere briet and wild Rose.

purposes as the dry and old gathered, and therefore they would haue a whole yeares drying before they be vsed. The wall-floure being taken to the quantitie of halfe a cyath in three cyaths of water, stirreth womens fleurs, and draweth them downe. A liniment made with the root and vinegre together, do mitigate and allay the paine of the spleen: likewise it asswageth the gout: and being tempered with myrrh and saffron, it is singular for inflammations of the eyes. The leaues mixed with hony clense the head from scurfe and skall: reduced into a cerot, it healeth vp the chaps in the seat or fundament, as also all such fissures in any moist place whatsoever. And with vinegre they be good for all collections of humors and apostemations.

Bacchar also is an herb whereof there is good vse in physick. Some of our countrymen haue called it in Latine Perpenfa. It affourdeth a good remedie against serpents: it qualifieth the excessive heat of the head, allaieth the ach, and restraineth the flux of humours downe into the eyes. A cataplasme is made thereof for womens breasts, swelling immediatly after childbirth, for to breake the kernell. Also for fistulous vlcers, beginning to breed betweene the corners of the eies and of the nose, and Saint *Anthones* fire. The very odour thereof is a good inducement to sleep. The root sodden and taken in drink is singular for them that are troubled with cramps and convulsions; that haue fallen from on high, that be drawn together with spasmes, and finally for such as labor for wind. A decoction made of three or foure of the roots, boiled away to the thirds, is giuen with good successe for an old cough. And this drink or Iuleb is very conuenient for to purge women that haue trauelled and bin deliuered before their time. It taketh away the stiches in the side, cureth the pleurisie, and skoureth the stone. Herof be bags and quilts made, and those if they be laid in a wardrobe among cloathes and apparel, causeth them to smell sweet.

As for Combretum (which I said was much like vnto Bacchar) if it be beaten to powder and tempered with hogs greafe it maketh a soueraign salue that healeth wounds wonderfully. Asarum (by report) is an appropriat medicine for the liuer, if an ounce of it be taken in one hemine of honied wine. It purgeth the belly as violently as Ellebore. In case of the dropsy it is singular; as also for the midriffe, precordial parts, the Matrice, and the Iauinise. If it be put into new wine when it worketh, and so tunned vp, it maketh a singular diuretick wine for to prouoke vrin. It must for this purpose be digged out of the ground when the leaues begin to put forth. Dried it ought to be in the shade; although it be subiect to corruption and mouldeth very soon.

CHAP. XX.

¶ Of French Nard, and Saffron. The medicinable vertues of Saffron, and the cake or dregs thereof. Of *Saliunca*, *Polium*, and *Floure de-lis*. Of *Holochryson*, *Chryscome*, and *Melilore*.

Forasmuch as some haue taken rustick Nard to be the root of Bacchar, and so named it: the which hath put me in mind of French Nard, and the promise which I made in my treatise of strange and forrein trees, to put off no longer than this place for to speake of it, and the properties thereto belong. To acquit my selfe therefore, I will here set down the vertues of the said Nard, as touching the vse thereof in Physicke. First therefore, if two drammes of French Nard be taken in wine, it is singular against the sting and biting of serpents. Item, if one drinke it either in wine or water, it easeth the passions of the Collick, proceeding from the inflammation of the gut Colon. In like sort it cureth the inflammation of the liuer and the reins, the ouerflowing also of the gal, and the Iauinise thereupon. Taken alone by it selfe or with Wormewood, it is a good remedy for the Dropie. It represseth the immoderat flux of womens fleurs.

As touching Serwall or Valerian, which in the foresaid place we named Phu; the * root either beaten into powder, or sodden and so giuen in drinke, is excellent for the rising of the Mother, which threatneth suffocation; for the pains of the breast and pleurisie. The same prouoketh the course in womens terms, so it be taken in wine.

Saffron will not resolute nor be mixed wel with hony or any sweet thing. Howbeit, in wine or water, it wil dissolve very soon and be incorporated therewith. A soueraign spice this is, & singular for many maladies. The best way to keep saffron is within a box of horn. It discusseth verily all inflammations, but principally those of the eies, if together with an egge it be applied in forme of a liniment. Excellent it is for the suffocation of the matrice, the exulcerations of

A of the stomacke, breast, kidnies, liuer, lungs, and bladder: and more particularly, if any of these parts be enflamed, a proper remedie also it is in that case. Likewise it cureth the cough & pleurisie. It killeth an itch, and prouoketh vrin. Our wine-knights when they purpose to sit square at the tauerne and carouse lustily, if they drinke Saffron, neuer feare surfeit nor the ouerturning of their braine: and they are verily persuaded, that this keepeth them from drunkenesse, and maketh them carie their drinke well. Certes, a Chaplet of Saffron vpon the head, dooth allay the fumes ascending vp thither, and preuent drunkenesse. Saffron induceth sleep, but it troubleth the braine * somewhat it pricketh forward to wanton lust. The floure of Saffron reduced into a liniment with white Fullers earth, helpeth the Shingles and S. *Anthones* fire. And saffron it self entereth into very many compositions of Physicke. One Collyrie or * eye-salve there is, which B taketh the name also of saffron. And when the ointment made of Saffron called Crocinum, is strained and pressed out, the grounds which remaine is named Crocomagma, which also is not without some speciall vses, for it cureth the suffusion of the eyes, or the catara: but it causeth ardeur and heat of vrine more than Saffron it selfe. The best is that accounted, which if a man tast in his mouth, doth colour his spittle and staine his teeth.

As touching the Flower-de-lis, the red is thought to be better than the white. Certes if little infants do wear it tied about them by way of necklace, collar, or girdle, it is supposed to be a singular remedie, especially when they breed teeth or haue the chincough. Also if they be troubled with the * worms, they hold it good gently to inskill the same in the body [either by drink or clystres.] All other operations that the Flour-de-lis hath, differ not much in effect from honny. A singular property it hath to clense the head from sores and skalls, and generally to mundifie all impostumat vlcers. Two drams thereof taken with hony, easeth the belly, & prouoketh to the stoole. Giuen in ordinary drink, it staieth the cough, appeaseth wrings, & dissolueth ventosities in the belly. In vinegre it openeth the opilations of the spleene. And being taken with water and vinegre together, it is an effectuell remedie against the stinging of serpents and spiders. The weight of two drams eaten with bread or drunk in water, resisteth the poison of scorpions. Being made into a liniment with oile, and so applied, it cureth the bitings of mad dogs, and heareth the parts mortified with extreame cold. In like manner also it allaieth the paines of the sinews. Reduced into an ointment with Rosin, it is singular for the paine of the loins and the gout Sciatica. This root is hot in operation. If it be drawne or snuffed vp into the nose, it causeth sneezing, and purgeth the head. A liniment of it and Pome. quinces or Peare quinces, easeth the head-ach: it represseth also the vapours flying vp into the head, causing distemperature of the braine, in a surfeit of wine or strong drinke. It helpeth streightnesse of breath, and such as cannot take their winde but sitting vpright. It prouoketh vomit, if it be taken to the weight of 2 Oboli. A cataplasme of it and hony together, draweth forth spils of broken bones. The powder of it is much vsed for Whit-flawes: and the same applied with wine, taketh away cornes and werts: but it must lie on three daies before you vnbind and take it from the place. The very chewing of it, correcteth a strong and stinking breath: as also the filthie saour of the arme-holes. The juice thereof doth mollifie all hard tumors. It prouoketh sleepe, but it consumeth sperme or natural seed. The Fissures in the seat, as also the blind and swelling piles in the fundament and all superfluous excrescences of the bodie, it cureth.

There is a wild kind of Floure-de-lis, which some call Xyris: the root of this herb is good to resolute & discuss the swelling kernels named the Kings euil, hot biles, & risings in the groin. Howbeit for to work these effects, there be certain ceremonies precisely to be obserued, namely, That it be taken out of the ground with the left hand in any case. Item, that they who gather it do say in the gathering, For whos sake they pluck it vp; and withall, name the person: & here in making mention of this matter, I cannot but detest the knauery of these Harbarists and simplers: Their maner is not to employ & occupie all that they haue gathered, but reserue & keep part thereof, as also of some other herbes, as namely of Plantaine, and if they be not well contented, nor thinke themselves paid thoroughly for their paines in the cure, they make no more ado but burie and couer within the earth that part which they kept by them, in the same place where it was digged forth. And I belecue verily they haue an unhappie meaning and a certaine kind of witchcraft herein: for sooth, That the maladies which they seemed to haue healed, should breake out and be sore again, to the end that they might be set on work anew. As touching *Saliunca*, the decoction of it in wine and so taken, staieth vomits, and corroborateth the stomack.

* Nay it is a great enemy vnto it.
* *Dia. croch.*
* *Paul. Agin.*

* *Tinearum vi.*
* *zin.* Plinie commonly taketh *Tineas* for worms in the belly: although other- while it betokeneth sores and skalls in the head.

* *Zedagrinum.*

Musæus and *Hesiodus* the Poets haue a great opinion of Polium: for they giue counsell to all those that would come to preferment & promotion, for to be anointed all ouer with a liniment thereof: such also as be desirous of renowne and glory, to be euer handling of it, to set it also, and maintaine it in their gardens. True it is, that folke do carie Polium about them ordinarily, or lay it vnder their beds for to chase away serpents. Physicians do seeth it either new & green, or drie, in wine, and therof make a liniment: or els they giue it to drinke in vinegre, to those that be pained with the jaundise; yea, & to such as be newly fallen into the droppe, they giue counsell to drinke the decoction thereof, being sodden in wine. And of it so prepared, they make a liniment for to be applied vnto green wounds. Moreouer, this herb is very good to fend out the after-burden in women newly brought to bed, and to expell the dead infant out of the mothers wombe. And otherwise it serueth well to mitigate any paines of the body. It doth purge and euacuate the bladder: and in a liniment applied to the eyes, restraineth their excessive watering. I know not any other hearbe better to goe with other ingredients into antidots or countrepoysons (named of the Greeks *Alexipharmaca*) than this. Howbeit, some denie all this, and are of opinion that it is hurtful to the stomacke, that the drinking of it stuffeth the head, and causeth women to fall into labor before their time. They say also, that this cerimonie would be precisely obserued, That in the very place where this plant is found, so soone as euer it is gathered it should be hanged presently vpon the necke of the partie, with a speciall care that it touch not the ground first, and then is it an excellent remedie for the cataract in the eye. And these authors describe this hearbe to haue leaues like Thyme, but that they be softer and covered ouer with a more hoarie and woollie downe. Being taken with wild Rue in raine water, so that it be beaten before into powder, it doth mitigat (by report) the deadly paines caused by the sting of the Aspis, it bindeth and draweth vp a wound, it keepeth corrosiue sores from festering and going farther, as well as the floures of the Pomegranate.

As namely *Di-
oscorides*.

The hearb *Holochrysos* if it be taken in wine, helpeth the strangury, and such as cannot pisse but by drops. And a liniment therof is passing good to repress the flux of humors to the eyes. If it be incorporat with Tartar or wine lees burnt into ashes, and drie Barley groats; it mundifieth the skin, and riddeth away ring-wormes, tetter, and such like wild fires.

As for *Chrysocome*, the root of it is hot, and yet astringent. It is giuen to drinke for the diseases of the liuer and the lights. And being sodden in honied water, it assuageth the paines incident to the matrice. It prouoketh womens monthly purgation: and being giuen in drink raw, it purgeth waterie humors gathered in the droppe.

Touching *Baulm*, which the Greeks call *Melittis* or *Melissophyllon*: if Bee-hiues be rubbed all ouer and besmeared with the iuice thereof, the Bees will neuer away, for there is not a floure whereof they be more desirous and faine, than of it: and in truth, looke in what garden there groweth abundance of this hearbe, the Bees there when they swarme, will be soone intreated to tarry, & not be hastie to wander far abroad. The same is a most present remedy not only against their stings, but also of wespes, spiders, and Scorpions. And being tempered with a little nitre, it is singular against the strangulation of the mother. Taken in wine, it pacifieth the wrings and torments of the belly. The leaues therof being sodden with salt, and brought into an ointment, are singular good for to be applied vnto the scrophules or swelling kernills called the Kings eare: and likewise to the accidents of the seat and fundament, as the swelling hemorrhoids or piles. The iuice taken in drinke, bringeth women to their ordinary monethly courses: it discuteth ventosities, and healeth vlcers: it allaieth the paines of any gouts, and cureth the biting of mad dogs: it is good for the bloody flux that hath run on a long time: as also those fluxes which proceed from the imbecillitie of the stomack: it helpeth them that be streight in the chest, and cannot take their wind but bolt vpright: it mundifieth also the vlcers within the breast. To conclude, it is said to be a singular remedie & none like vnto it, for to dispatch the webs in the eye, if they be anointed with the iuice thereof and honey tempered together.

* *Diocorides*
hath written,
Z. *Mushromes*:
whereof there
be some that
be dangerous
for suffocati-
on. But *Plinie*
as it should
seeme, read it
myrris, and
accordingly
hath transla-
sed it.

Melilot is thought also to be good for the eyes, if it be applied with milk or line seed. It assuageth also the paine of the jawes and head, if it be laid too with oile of Roses: likewise it doth mitigat the paine of the ears, if it be infilled or dropped into them with wine cuit. Moreouer, it the tumors and breaking out of the hands it helpeth. Being boiled in wine or stamped green, it easeth the griefe of the stomacke. The same effect it hath in the pain of the matrice. But if the cods be amisse, if the Longaon or tuill bee fallen, and beare out of the bodie; or if that part bee

H

I

K

L

M

A affected with other accidents, Bath the place with a decoction of it, boiled greene in water or cuit, and the patient shal find ease. But if there be an ointment of it and oile of Roses incorporat together, it is a foueraign remedie for all cancerous sores. If it be boiled first in sweet wine or cu it, it is the better for the purpose aforesaid: and so prepared, a speciall and effectuall thing it is for the wens called *Melicerides*: wherein is engendred matter resembling honey.

CHAP. XXI.

¶ Of Trefoile, and Thyme: of the day *Lillie Hemerocalles*: of *Elecampane*, and *Southernwood*, and *Cypres*.

B I Am not ignorant that folke are verily persuaded, how that Trefoile or three leaved grasse, is of great force against the stings of serpents and scorpions, if either 20 graines of the seed bee inwardly taken in wine, or warr and vinegre together; or if the leaues and the whole hearb be sodden, and the decoction drunk: as also, that serpents are neuer seen to lie vnder this Trefoile. Moreouer, I know full well that diuerse Authors renowned and of great credit, haue deliuered in their bookes, That fise and twentie graines of that Trefoile, which we called *Menianthes*, is sufficient for a preferuatiue and antidot against all poisons whatsoeuer: besides many other medicinable vertues which be ascribed to this hearb. But for mine owne part, I am inducd by the authoritie of the most graue and reuerend Poet *Sophocles*, to stand against their opinion; for hee affirmeth plainly, That Trefoile is venomous. Likewise, *Simus* the Physician doth report, that if the decoction of it sodden, or the iuice thereof stamped, bee poured or dropped vpon any part of the body which is found, it wil cause the same fiery and burning smart as followeth vpon a place bitten or stung with a serpent. And therefore I would thinke with them, and giue counsell also, that it is not to be vfed otherwise than a countrepoyson. For it may be peradventure, that in this as in many other, one poyson (by a certaine antipathie and contrarietie in nature) expelleth & mortifieth another. Moreouer, this I mark and obserue in their writings, that the seed of the Trefoile which hath smallest leaues, if it be reduced into a liniment, is singular good to embellish womens skin, and to preserve their beauty, if the face be anointed therewith.

Thyme ought to be gathered while it is in the floure, and then to be dried in the shade: now there are of Thyme two kinds, to wit, the white, which hath a woodie root, growing vpon little hills; and this is thought to be the better: the second, is blacker, & caries besides a black floure. They are thought both of them, the one as well as the other, very good to cleare the eyesight, whether they be eaten with meats or taken as a medicine. In like maner, an electuarie or lochoch made of Thyme, is supposed to be excellent good for an old cough, and being taken with hony and salt, to raise and breake fleam, causing the same to be raught vp with more facility: also that if it be incorporat with hony, it will not suffer the bloud to clutter and congeale within the bodie. Applied outwardly as a liniment with Senuie, it doth extenuate and subtiliate the rheume that hath of long time fallen in the throat and windpipe: and so also it amendeth the griuance of stomacke and belly. Howbeit, these Thyms must be vfed with measure and moderation: because they set the body in an heat, although they be binding and make the belly costie. Now in case there be an exulceration in the gurs, there must be taken the weight of 1 denier or dram in Thyme, to euery Sextar of honey and vinegre: semblably, it must bee ordered in case of the pleurisie; and when there lyeth a paine between the shoulders or in the breast. A drink made of Thyme with honey and vinegre in manner of a juleb or syrrop, cureth the griefe of the midriffe and precordiall parts nere vnto the heart. And verily a foueraign potion this is to be giuen vnto them that be troubled in mind and lunaticke, as also to melancholicke persons. The same also may be giuen to those who be subiect to the epilepsy or falling sicknes: whom the very perfume and smell of Thyme wil raise out of a fit, and fetch them again, when the disease is vpon them: It is said, that such should lie ordinarily in a soft bed of Thyme. This hearb is proper for those that cannot draw their breath vnlesse they sit vpright, and to such as are short winded, yea, and good for women, whose monethly courses are either suppressed or come but slowly. And for that the infant were dead in the wombe, a decoction of Thyme, sodden in water vnto the thirde and so taken, doth send it forth of the bodie. Men also doe find a great benefit by Thyme if they drinke a syrrop made of it with hony and vinegre, in case of ventosities and inflations: also, if their bellies be swoln or their cods; yea, and when their bladder is pained: moreover if it

be

be applied as a cataplasme with wine, it assuageth all tumors, and bringeth downe swellings: it G
staich also the impetuous and violent flux of any humours to a place, readie to breed an im-
pustulation. But if the same be applied with vinegre, it taketh away werts and hard callosities. It
is good for the Sciatica and other gouts, for dislocations and lums out of joint, being beaten to
pouder, and bestreued vpon a quilt of wooll, moistned and bathed with oile, and so laid to the
place in manner of a fomentation. A potion also thereof is vsually giuen in case of the gout, to
wit, the weight of 3 Oboles, in as many cyaths of vinegre and honey. Also when the stomacke
rifeth against meat and refuseth it, a drage or pouder of it with salt, brings the appetite againe.

The day Lillie Hemerocallus, hath leaues of a pale and wannish green colour, otherwise soft
and gentle, the root is bulbous or Onion like, and odoriferous: which if it bee laid to the bellie
in manner of a cataplasme, doth euacuat waterie humors, yea, and thick bloud that lieth clutter-
red within the bodie, ready to do a mischief. The leaues make an excellent liniment to anoint
the cies and the parts about it, as a defenatiue against the rheum falling thither with violence;
as also to be applied vnto the paps and breasts of women, which ake and are pained presently
after child-birth.

Helenium, an hearbe which sprang first from the teares of lady *Helena*, as I haue already shew-
wed, is thought to haue a special vertue to preferue beauty, and to maintain the skin fair, pure,
and delicate, as well in the face of women, as in other parts of their body. Moreouer, a deepe opi-
nion there is of this hearb, that whosoever vse it shall proue amiable and gracious, they shall I
say, win loue and fauour whersoever they come. Also there is attributed and prescribed to this
herb, if it be taken in wine, a mightie operation to procure mirth and make the heart mery, and I
it is thought to be as effectuell that way, as was that noble drinke *Nepenthes* (so highly com-
mended in *Homer*) so called, for that it puts away al heauinesse, sorrow, and melancholy. And in
faith the iuice of Helenium is * passing sweet and pleasant: the root of Helenium taken in wa-
ter vpon an emptie stomacke when a man is fasting, is very good for them that are streight win-
ded and cannot take their breath but vpright. Now is the root white within and * sweet also as
is the hearb. The same is giuen to drinke in wine against the sting of serpents. To conclude, be-
ing beaten into pouder, it is said for to kill Mice.

* So is not *Tau-
la*, or our Ele-
campane. And
therefore ei-
ther it is not
Helenium
here: or else
Plinie doth
mistake in this
place, as in
many others.
* which agre-
eth not with
ours,

As touching *Abrotonum*, I find that there be two kinds of it. The one of the plaines, which
I take to be the male; the other of the mountaines, which I would haue to goe for the female.
Neither of them both there is, but it is as bitter as *Wormwood*. The best is that which growes
in *Sicilie*: next to which, that of *Galatia* is most esteemed. The leaues are much vsed, but the
seed much more, for to heat and chaufe any part of the bodie. And therefore it is good and com-
fortable for the sinewes: it cureth the cough: it procureth them libertie of breath, who cannot
fetch their wind lying or leaning with their heads: it helpeth the crampe: it consolidateth rup-
tures: it easeth the paine of the loines, and maketh free passage for vrine. The right manner of
the decoction as well of the one as the other, is to seeth them in bunches or bundles like hand-
fulls, vntill a third part of the water be consumed; and foure cyaths is an ordinarie draught of
this decoction. The seed also being beaten into pouder, is giuen to the weight of a dram in wa-
ter, for a drink. And indeed so taken, it comforteth the matrice and the natural parts of women.
A poultesse made of it and *Barley meale*: applied vnto dull and broad swellings which gather
A
not quickly to an head, doth ripen them apace and bring them to suppuration. Also being re-
duced into a liniment with a quince roasted or baked, it cureth the inflammation of the eyes, if
they be annointed therewith: it hath a vertue to driue a way serpents, & in case one be stung with
them already, it expelleth the poison taken inwardly in drinke; or laid too outwardly in forme
of an ointment, draweth it forth. But most effectually is the power thereof seen, in those pois-
oned and venomous stings which cause the bodie to shake, chill, and quake for cold, as namely
those of scorpions, and the spiders called *phalangia*. Moreouer, good it is also for other poisons,
if it be taken in drinke: and so it helpeth those that be surprised with any extreme cold howso-
euer. This propertie likewise it hath, to draw forth of the bodie all spills or any thing else that
sticketh within the same. It driueth out of the body the worms engendered in the guts. Finally
it is said, that if a branch thereof be laid vnder the pillow where folk lieth in bed, it wil put them
in mind of wantonnesse, and prouoke them to lust: and against all charmes, enchantments, and
witchcrafts, which cool the heat of the flesh, and disable or bind any person from the act of ge-
neration, it is the most powerfull hearb of all others.

CHAP.

CHAP. XXII.

¶ The medicinable vertues of *Leucanthemum*, and *Sampsuchum*, [*i. Marjerom.*]

LEucaanthemum mingled with 2 parts of vinegre, and so giuen to drinke, is good for those
that be short winded. As for *Sampsuchum* or *Amacacum*, that of *Cyprus* is most com-
mended, and the sweetest of all other: this hearb brought into a liniment, and applied with
vinegre and salt, is good against the venom of *Scorpions*. Moreouer, if it be put vp into the na-
turall parts of a woman in forme of a pessarie, it helpeth much to bring downe their monethly
courses: for if it be taken in drinke, it is not so effectuell. Appled as a liniment, after it is incor-
porat with barley groats, it restraineth the flux of humors to the eyes. The iuice thereof when it
is sodden, discusseth and dissolueth the ventosities that moue pangs and wrings in the belly: a
good medicine it is to prouoke vrine, and by consequence, for those that be in a dropisie. *Mar-
joram* dried, mooueth sleepe. Thereof is made an artificiall oile, called *Sampsuchinum* or
Amaracinum, singular for to heat the sinewes, and to mollifie their stiffnesse and hardnesse: as
also by the heat thereof to comfort the matrice. The leaues applied with hony, serue very well
to reduce the black and blew marks occasioned by stripes or bruises, to their natural and liuely
colour: and brought into a cerot with wax, it is good for dislocations of joynts.

CHAP. XXIII.

¶ The vertues and properties of *Anemone* or *Wind-floure*, requisit in Physicke.

We haue discoursed of *Anemone* and those kinds thereof, which go to the making of
chapters and guirlands: it remaineth now therefore to speake of those which serue for
good vse in Physicke. But first as touching *Anemone* in generall: some there bee who
call it *Phenion*; and two principal kinds there be of it: The first groweth wild in the woods: the
second commeth in places wel tilled and in gardens: but both the one and the other loue sandy
grounds. As for this later kind, it is subdiuided into many speciall sorts: for some haue a deepe
red skarlet floure; and indeed such are found in greatest plenty: others bear a purple floure: and
there be again which are white. The leaues of all these three be like vnto *Parsley*. None of them
ordinarily grow in height aboue halfe a foot; and in the head of their stemme, they shoot forth
D
sprouts in manner of the tendrils of *Asparagus*. The floure hath this property, Neuer to open
but when the wind doth blow; whereupon it tooke the name * *Anemone* in Greek. But the wild
Anemone is greater and taller: the leaues also are larger; and the floures are of a red colour. Ma-
ny writers, being carried away with an error, thinke this *Anemone* and *Argemone* to bee both
one: others confound it with that wild *Poppy* which we named *Rheas*: but there is a great dif-
ference betweene them, for that both these hearbes doe floure after *Anemone*: neither doe the
Anemone yeeld the like iuice from them, as doth either *Argemone* or *Rheas* before-named: they
haue not also such cups and heads in the top, but only a certaine musculositie at the ends
and tips of their branches, much like to the tender buds of *Asparagus*.

Hereupon *A-
nemone* is
called *Rhe-
pansley*.
* *Anemone*,
in Greek, be-
tokeneth
Wind: where-
upon *Ruellius*
called it *Her-
ba-venti*: and
Gerard,
Wind-floure
more pro-
perly.

E All the sorts of *Anemone* or *Wind-floure*, bee good for the head-ach and inflammations
thereof; comfortable to the matrice of women, and increaseth their milk. Being taken inward-
ly in a *Pisane* or barley gruell, or applied outwardly as a cataplasme with wooll, this hearb pro-
uoketh their monthly teares. The root chewed in the mouth, purgeth the head of fleame, and
cureth the infirmities of the teeth. The same being sodden, and laid to the eyes as a cataplasme,
represseth the vehement flux of waterie humors thither. The Magicians and Wife men attri-
bute much to these hearbes, and tell many vonders of them; namely, That a man should gather
the first that he seeth in any year, and in gathering to say these words, *I gather thee for a remedie
against tertian and quartan agues*: which done, the partie must lap and bind fast in a red cloth the
said floure, and so keep it in a shady place; and when need requireth, to take the same, and either
hang it about the necke, or tie it to the arme or some other place. The root of that *Anemone*
F which beareth the red floure, if it be bruised and laid vpon any liuing creature whatsoeuer, rai-
seth a blister, by that caustik and corrosiue vertue which it hath: and therefore it is vsed to muni-
fic and cleanse filthie vlcers.

L

CHAP.

agues: but they lay a great charge, that it should in any wise be plucked vp with the left hand, and the parties precisely named for whose sake they gather it: but in any case they who pluck it, must not look behind them: which done, a leafe of the herbe must be put vnder the tongue of the sick patient; and when it hath bin held so a little while, it must anon be swallowed down in a cyath of water.

CHAP. XXXI.

¶ Of Night-shade or Morell: of *Alkakengi* and *Halicacabus*, and their vse in Physicke.

NOW concerning Nightshade or Morell, which some name *Strychnos*, others haue written by the name of *Trychnos*: would to God that the guirland-makers of Egypt had not employed and vsed in their chaplets the floures of two kinds of them, induced therto by the resemblance that they haue to the luy floures: of which, the second that hath red berries like cherries of a scarlet colour, contained within certain bladders, & those berries full of grains or seeds, some name * *Halicacabus*, others *Callion*: but our countrey men here in Italy call it * *Vesicaria*, because it is good for the stone in the bladder. Certes this plant is more like a shrub, or little tree full of branches, than any herb; bearing great and large bladders, & those fashioned like a top, broad and flat at one end, and sharp pointed at another, inclosing within it a great berry, which ripeneth in the month Nouember. The third kind of *Strychnos* or *Solanum* hath leaues like to Basil: but I must but lightly touch this herb, and not stand long about the description either of it or the properties which it hath; since my purpose is to treat of holsum remedies to saue folke, and not of deadly poisons to kill them: for certes this herb is so dangerous, that a very little of the iuice therof is enough to trouble a mans brain, and put him beside his right wits. And yet the Greeke writers haue made good sport with this herb, and reported pretty yeasts of it: For, say they, who soeuer taketh a dram of the iuice shall haue many strange fantasies appearing euidently vnto them in their dreames; if they be men, that they dally with faire women: if they be women, that they be wantons, playing and toying with men without all shame and modesty, and a thousand such vain illusions: but in case they take this dose double, then they shall proue foolish indeed broad waking, yea & go besides themselves: let them take neuer so little more, it is mortal, and no remedy then but death. This is that poison which the most harmlesse and best minded writers that euer wrot, called simply *Dorycnion*; for that soldiers going to battel vsed to anoint and inuenom therewith the heads of their arrows, darts, and speares, growing as it did so commonly in euery place. But other Writers, who had not fought so far into the matter, nor aduisedly considered of it, gaue it the name of *Manicon*. But those that of a naughty mind, cared not secretly to impositon the whole world, haue hidden the danger thereof, and term it by a name pretending no harm; some calling it *Neuris*, others *Perrisson*. But as I protested before, I think it not good to be too curious and busie about the description of this herb, notwithstanding I might seem to giue a good caueat of it by further particularizing thereof. Well, the very second kind which they call *Halicacabus*, is bad enough, for it is more soporiferous than *Opium*, and sooner casteth a man into a dead sleep, that he shall neuer rise again. Some name it *Morion*, others *Moly*: and yet it hath not wanted those that haue thought it praise-worthy: for *Diocles* and *Euenor* haue highly commended it: and *Tamarißus* verily hath not stuck to write verses in the commendation of it: A wonderful thing, that men should so far ouerpasse themselves, and forget all honesty and plaine dealing: for they say, forsooth, that a collusion made of this herbe confirmeth the teeth that be loose in the head, if the mouth be washed therewith. And one onely fault they found in *Halicacabus* (otherwise it might be praised without exception) that if the said collusion were long continued, it would trouble the brain, & bring them that vsed it to foolerie & idlenesse of head. But for mine own part, my meaning is not to set down any such receipts and remedies, which may bring a further danger with them, than the very disease it selfe for which they were deuised. The third kind also is commended for to be eaten as meate, although the garden *Morell* is preferred before it in pleasantnesse of taste. Moreouer, *Xenocrates* auoucheth, That there is no maladie incident to our bodie, but the said *Morell* is good for it. Howbeit, I make not so great reckoning and account of all the helpes that these and such like herbes may afford, as I doe make conscience

* *Alkakengi*, or winter-cherry
* or rather for that the sayd berry lieth within a cod like a bladder.

A to deliuer them in writing, especially seeing we haue so great store of safe and harmlesse medicines, which we may be sure can do no hurt. Indeed, the root of *Halicacabus* they vse to drinke and make no bones at it, who would be known for great Prophets to foretell future things: and therefore it is alone for them to be seen furious and raging, the better to colour their knauerie and lead the world by the nose in a superstitious conceit and persuasion of their diuine gift of prophesie, and so to feed men still in their folly. But whar is the remedie when a man is thus ouertaken? (for surely I am better content to deliuer that) Euen to giue the party thus intoxicated, a great quantity of Mede or honied water, and to cause him to drink it off as hot as he can. Neither wil I ouerpasse this one thing besides, That *Halicacabus* is so aduerse vnto the nature of the *Aspis*, that if the root thereof be held any thing neere vnto the said serpent, it will bring asleepe and mortifie that venomous creature, which by a soporiferous power that it hath also of the own, casteth a man into a deadly sleep, and killeth him therewith. And therefore to conclude, hereupon it commeth, that the same root bruised and applied with oile, is a foueraigne and present remedie to them who are stung by the foresaid *Aspis*.

CHAP. XXXII.

¶ Of *Corchorum* and *Cnicus*.

THEY of Alexandria in Egypt vse to eat ordinarily of *Corchorum*. This herb hath leaues inwrapped and infolded one within another, after the maner of the Mulberry. Good it is (as they say) for the midriffe and the parts about the heart: also to recouer haire that is fallen away by some infirmite; and likewise for the red pimples or sauce-flegme in the face. I reade moreover, that the skab or mange in kine and oxen is most speedily cured thereby. And *Nicander* verily doth report, that it helpeth the stinging of serpents, if it be vsed before it be in the floure. As touching *Cnicus*, otherwise called *Atractylis* (an herb appropriate to the land of Egypt) I would thinke it meet not to vse many words about it, but that it yeeldeth a foueraigne remedie against the poison of venomous beasts; yea, and the dangerous Mushrooms if a man haue eaten them. This is certain, and an approued experiment, That who soeuer are wounded by the sting of *Scorpions*, shall neuer feeble smart or paine, so long as they hold that herb in their hand.

CHAP. XXXIII.

¶ Of *Perfoluta*.

THE Chaplet-makers in Egypt set great store by *Perfoluta* also, which they sow and plant in their gardens onely for to make Coronets and Guirlands. Two kinds there be of it, the male and the female. It is said, That the one as well as the other, if it bee put vnder man or woman in bed, they shall haue no minde nor power at all to play at *Venus* game, and specially the man.

CHAP. XXXIV.

¶ Of Measures and Weights.

AND so far much as we shall haue occasion oftentimes in setting downe weights and measures, to vse Greeke vocables, I care not much euen in this place to interpret those words once for all. First and foremost, the Atticke Drachma [for all Physitians in manner go by the poise of Athens] doth poise iust a Roman siluer denier: and the same weigheth also six Oboli: now one Obulus is as much in weight as ten Chalci. A Cyathus of it selfe alone cometh to ten drams in weight. When you shall reade the measure of *Acetabulum*, take it for the fourth part of Hemina, that is to say, fifteen drams. To conclude, Mna, which we in Latine call Mina, amounteth iust to an hundred drams Atticke.



THE TWENTY SECOND BOOK
OF THE HISTORIE OF NATURE,
WRITTEN BY C. PLINIUS
SECVNDVS.

The Proeme.



As an would thinke who did but reade the former Booke, That dame Nature and the Earth both had done their parts, and shewed their wonderfull perfection sufficiently; if he considered withall the admirable vertues of so many herbes which they haue brought forth and bestowed vpon mankind, as well for pleasure as profit. But see what a deale of riches more is yet behind; and how the same, as it is harder to be found, so it is in effect more miraculous! As for those Simples whereof wee haue already written, for the most part they are such as haue serued our turne at the boord: or else in regard of their beauty, odor, and smell, haue endued vs to search farther into them, and to make triall of their manifold vertues and operations in Physick. But yet there remain behind many more, and those so powerfull, that they proue evidently vnto vs, how Nature hath produced nothing in vaine and without some cause: although the same be occult and hidden many times from vs, and reserved only in her closet and secret counsell.

CHAP. I.

¶ Of certaine Nations which vse herbes for procuring and preseruing of beauty.



* All such as be
neither within
Greece nor
Italic.

Eertes I do find and obserue, that there be forrein Nations who time out of mind haue been euer accustomed to annoint their bodies with the iuice of certain herbes, for to imbellish and beautifie them, as they thought. And verily in some of these * barbarous countries ye shall haue the women paint their faces, some with this herbe, and others with that: yea and among the Dakes and Sarmatians, in Transylvania, Valachia, Tartaria, & those parts, the men also marke their bodies with certain characters. But to goe no farther than into Gaule, there groweth an herb there like vnto Plantain, and they call it Glastum, [i. Woad] with the iuice whereof the women of Britain, as wel the married wiues, as yong maidens their daughters, anoint and dy their bodies all ouer, resembling by that tincture the color of Moores and Ethiopians: in which manner they vse at some solemne feasts and sacrifices to go all naked.

CHAP. II.

¶ That Clothes be died with certaine Herbs.

AND now of late dayes, we know there hath been taken vp a strange and wonderfull maner of dying and colouring clothes. For (to say nothing of the groin brought out of Galatia, Africke, and Portugal, whereof is made the royall Skarlet, reserved for princes only and great captains to weare in their rich mantles of estate and coats of armes:) behold, the French inhabiting beyond the Alps, haue inuented the means to counter-act the Purple of Tyrus, the Skar-

A Skarlet also and Violet in graine, yea, and to set all other colours that can bee deuised, with the iuice only of certain hearbs. These men are wiser (beleue mee) than their neighbours of other nations before them: they hazard not themselves to found and search into the bottome of the deepe sea for Buriets, Purples, and such shell-fishes. These aduenture not their liues in strange coasts and blind baies, where neuer ship hath rid at anker, offering their bodies as a prey to feed, the monstrous Whales of the sea, while they seeke to beguile them of their food in fishing for the said Buriets: & all to feed that, whereby as well vnchast dames of light behaviour might set out themselves and seeme more proper, to allure and content adulterous ruffians: as also those gallants again, squaring and ruffling thus in their colours, might court faire ladies and wedded wiues, yea, and with more ease entrap and encompass them to yeeld to their pleasure: but these men stand safe vpon drie land, and gather those hearbs for to die such colors, as an honest minded person hath no cause to blame, nor the world rason to crie out vpon. Nay our braue minions and riotous wantons, it might seeme also to be furnished therewith, if not altogether so glorious to the eye, yet certainly with lesse offence and harm. But no part it is of my desseigne and intent to discourse vpon these matters at this present: neither will I stand on the thrift and good husbandry that may be seen in such a thing as this, least I might seeme to colour any vanitie with a shew of commodity and frugalitie: and to limit excesse and superfluitie within the rearmes of profit and cheapnesse, which indeed will not be gaged and brought within any compass. Besides, I shall haue occasion hereafter in some other place to make mention both of dying stones, and also of painting walls with herbs. As for the art and myserie of Diers, if euer it had been counted any of the liberal Sciences, becoming a gentleman either to professe or practise, I assure you I would not haue ouerpassed it in silence. And yet I promise you, this feat grows to credit euery day more than other: and the * hauens abroad where those fishes be taken which furnish them with colors, are mightily frequented and in greater name and request than euer they were. In which regard, I canot chuse but shew and declare what account we ought to make of these dumbe tinctures in that behalfe; I meane such hearbs and simples, whereof there is but base reckoning or none at all made: for those great princes which were the first founders and establishers of the Roman Empire, did mighty things therewith, and employed these herbs in the highest matters of state. For in the affaires of greatest importance, namely, either in public sacrifice for the auerting of some heauy judgement of the gods threatened: or in expiation of any grieuous sinne and offence committed (whether they performed diuine seruice to their gods, or dispatched honourable embassages to other States) they vsed their Sagmina and Verbenae, by which two words verily was meant one and the same thing, euen some plain and common grasse plucked vp with ceremoniall deuotion, turfe and all, from their castle hil or citadel of Rome. And this at all times was obserued religiously, that they neuer sent their heraulds to the enemies of the people of Rome for to clarigat, that is to say, to summe them with a lowd voice for to make restitution of that which they detained of theirs, without a turfe and tuft of the said grasse: and euermore there accompanied these heraulds in their train, one speciall officer who had the charge to carie and tender that hearbe, who thereupon was called Verbenarius.

CHAP. III.

¶ Of grasse Chaplets.

NO Coronets verily were there euer at Rome better esteemed, either to testifie the triumphant maiestie of that victorious citie (the soueraign lady of the whole world) or to giue testimony of honour and reward for some notable seruice performed for the Commonwealth, than those which were made simply of green grasse. The crownes of beaten gold, and enriched with pearle; the Vallare and Murall Chaplets bestowed vpon braue knights and valiant souldiers, who either entred the fortified camp of the enemy ouer turfe & rampier, or mounted the wals in the assault of a city, came nothing neer to this: the Nauall garlands giuen to admirals and generals at sea, for obtaining victory in that kind of seruice: the ciuick coronets also presented vnto such as had rescued a Romane citizen, and saued his life, came behind these: and in one word, the Chaplet triumphall, which they ware who entred with triumph into Rome, was nothing comparable to these. And yet all these Guirlands abouenamed haue notable prerogatives, and differ one from another in many respects. In a word, those Coronets and Chaplets of honour

honor, all saue these made of grasse, were giuen many times by some priuat and particular persons, are by the captains and generals themselues vnto their soldiery; yea, and otherwhiles from one Generall to another, when they were ioined together in equall commission, in testimony of vertue and valour.

CHAP. III.

¶ *The singularitie and rare examples of such Chaplets made of grasse.*

Now, whereas other Garlands of honour and Coronets of triumph, were alwaies either ordained by a decree from the Senat in time of peace, and after the troubles of warre ouerblowne; or granted by an act of the people, being quiet and in repose, when dangers were past; this Chaplet of grasse aforesaid, it was neuer any mans hap to haue, but in some extremity and desperat case of the whole state: nor at any time adiudged to a man, but by the whole army, confessing with one voice and generall consent, That by him alone they were all saued from the edge of the sword, or famine. As for the rest, the captaines and generals vsed to giue them: this onely was presented by the souldiers to their chiefe leader. The same was called also an Obsidionall coronet or siege-garland; namely, when some captaine had forced the enemies to raise the siege and dislodge, and thereby saued either a whole towne or campe from vtter shame and finall destruction. And Certes, if there were to great account made of a ciuicke garland for rescuing the life of one only citizen of Rome (and such an one perchance as was of all others the meanest) that whose fortune it was to obtain it, he was honored euer after with many priuiledges and immunities, and counted sacred: how highly then is he to be esteemed, who by his own valour and proesse hath saued many thousands, and a whole army of such citizens? This Chaplet then, so singular and excellent, was made of the green grasse, or herbes taken and gathered from the very place where a man had saued & deliuered the besieged. For in truth, the greatest signe of victory in old time, and of yeelding to the mercy of the enemy, was this. If the vanquished did take vp grasse, and tender it vnto the conqueror: for this serued as a confession and protestation, That they rendered vp all their interest which they might challenge in the earth (the mother that bred and fed them) yea, and the very right of sepulture in her: which custome I vnderstand, the Germans do retaine and obserue, euen at this day.

CHAP. V.

¶ *What captaines they were, who alone received the honor of a grasse Chaplet.*

L *Vicius Sicius* surnamed *Dentalus*, was crowned but once with this Coronet of grasse: notwithstanding it was his good fortune to deserue and obtaine fouretee Ciuick garlands: to fight with his enemy in a hundred and twenty battels, and euer to return out of the field with victory: whereby we may see how rare a thing it was in times past, to see an army thus saued through the valour of their captaine, for to recognize by this publick present their only fauor. And some leaders and captains haue bin honoured this way oftener than so: as for example, *P. Decius Mus* receiued two such Coronets: for being a Colonell and knight Marshal of the camp, he behaued himselfe so valiantly, that one was giuen him by the regiment or army which himselfe led; and another by those who had bin besieged within their fort. And how highly he esteemed of this honourable reward, hee testified by his religious deuotion and the sacrifices which he offered thereupon to the gods: for no sooner had hee receiued these Coronets; but whereas the armie aforesaid besieged, and by him deliuered, had bestowed vpon him ouer and aboue for his braue seruice, one white Oxe, and an hundred others, which were brended, hee sacrificed them all vnto god *Mars*. This was that *P. Decius*, who afterwards being Consull together with that surly and imperious colleague of his [*T. Manlius*] surnamed *Imperiosus*, deuoted and yeelded himselfe to all the diuels of hell for the safety of his armie, and the obtaining of victory. Moreouer, that noble and renowned *Fabius*, who set vpright again the declining state of the Romane Commonweale, with lying off and not fighting at all with *Annibal*, was crowned therefore with such a chaplet, by authority from the Senat and people of Rome: such an honor in my iudgement as no man in this world can reach and attain to higher. True it is, that beforetime he had performed good seruice, & namely, when being Dictator, he rescued & saued his

A his high * Constable or grand master of the Caualtery, together with his whole army: and yet was he not thus highly rewarded then, with this Coronet of green grasse. For in testimony of thankfulness, this gratuity they whom hee had saued, thought at that time better, namely, to crowne him (as it were) with a new name & title to his former stile, calling him with one voice, Father: but the honor aboue named was giuen vnto him (as I said) by the generall consent as well of Senat as people, at what time as he chased *Annibal* out of Italy. And in truth, neuer man yet was in this wise knowne to be crowned by the hands (if I may so say) of the whole Empire, but himselfe alone. This peculiar honor obtained he aboue all others, that this Chaplet alone was offered and presented vnto him by all the states of Italy.

CHAP. VI.

¶ *What he was, who alone of all Centurions receiued this Chaplet of grasse.*

B Besides those abouenamed, I find that *M. Calpurnius Flamma*, a Colonell of a regiment of souldiers in Sicily, was in this manner rewarded and honored with a grasse garland. But neuer was there known to this day any one to haue bin crowned in this wise, of so base degree and condition as *C. Perreius Atinus*, in that war wherein the Cimbrians were defeated, who indeed was no better than a simple Centurion. This Centurion hauing by his place the conduct of the formost band of a regiment of souldiers vnder Colonell *Catulus*, seeing vpon a time certain companies excluded out of their owne campe, by reason that the enemies had put themselves between them and home, and there incamped; perceiving his captaine or Colonell *Catulus* aforesaid, timorous and doubtfull to breake through the enemies camp; put on a resolute mind, slew his own Colonell, exhorted and encouraged the companies to quit themselves like men, and follow his ensigne; and so he defeated his enemies and deliuered his own legion. I reade moreover in the Chronicles, That the same Centurion ouer and aboue the foresaid braue ornament of a grasse Coronet, had this honor done vnto him, that being clad in a long robe of purple imbrodered, and assisted with both the Consuls for the time being, *Marius* and *Catulus*, he was allowed to sacrifice vnto the gods with a noise of fifes and haut boies sounding hard by the hearth or altar fire. Furthermore, *Sylla* the Dictator hath left in writing, That when he was lieutenant Generall vnder the Consuls, and had the leading of the army in the expedition or journey against the Marrians, the whole army presented vnto him a Chaplet of grasse, before the city of Nola. And in very truth hee caused this to be pourtraied in a painted table within a house of pleasure which he had in *Thufculum*, the same that afterwards *M. Tullius Cicero* was master of. Which if it were true, the more shame deserued he in my conceit: and I hold and pronounce him so much the more accursed and detestable, for taking this crowne from his own head, and losing such a braue badge of honor, in proscribing, ouerthrowing, banishing, and murdering afterwards, a greater number of citizens (without all comparison) than those souldiers came to, whose liues he saued, at what time as he took that garland first vpon his head. Let him vaunt as much as he wil of the said Coronet, as also of the proud and vain glorious title of *Felix*, i. happy (which addition or surname he took vpon him & caused to be put into his stile) yet, when as through his tyranny he held besieged those Roman citizens whom he had proscribed and confined into all parts of the world, surely he forewent all and yeelded that crowne vnto *Sertorius*.

Moreouer, *M. Varro* doth report, That *Scipio* surnamed *Emilianus*, was honoured with an Obsidionall Coronet in Africk (the same yere when as *Manlius* was Consull) for sauing three cohorts besieged; as also three companies besides which he led forth to deliuer the other, and by whose means he forced the enemy to break vp his siege. This is to be seen and read in a Table, which *Augustus Caesar* late Emperor of famous memory, caused to be hanged vp at the base or foot of the said *Scipios* statue erected in the Forum or publick hall which himselfe built. As for *Augustus* himselfe, the Senate crowned him with an Obsidionall Chaplet, vpon the thirtieth day of September, that yere when he was Consull with *M. Cicero*, the son of that great *Cicero* the Orator. Whereby we may see, that a Ciuick Chaplet was not thought sufficient nor any waies comparable to this Coronet. And setting aside these aboue named, I do not find in histories, of any one who was crowned with a green chaplet of grasse. Now, this you must note withall, That there was not one certaine hearbe set out & appointed for these honorable Guirlands; but look what kind of herbage grew then in the place besieged & where the danger was, that

that very fame they tooke, were they neuer so bafe weeds and of no reckoning: for as contemptible otherwise as they were, yet being once imploied to this vse, they innobled & adorned the person himfelfe who ware them in a Chaplet. And certes, the lesse maruel I haue if these things be vnkowne to vs now adaies, seeing as I doe, how little or no account is made euen of those things which make to the maintenance and preferuation of our health; to the cure of all dolorous griefes and maladies of the body, yea, and to the preuention of death it self. But what man is there well giuen and honestly minded, who can containe and hold his peace, hauing so just cause to reprove and rebuke the maner of the world in these our daies? first and formost, our life was neuer so costly as now it is, in regard of the dainties, delights, and superfluities, which must be maintained, if will liue to the fashion of the time: and for to inioy these pleasures onely, we hold our liues more sweet and precious. Neuer were men more desirous of long life, and neuer lesse carefull to entertaine the means of long life. The gouernment of our health we commit to the charge of others, and strangers we credit with our owne bodies, and yet slacke enough and negligent are they, to ordain according to our trust and confidence, that which indeed should do vs good. Thus the Physitians are provided well for; they thrise alone and go away with the gains by this means. Oh good God, to see the folly and vanity of man! Nature hauing put so many good things into our own hands as she hath, and willing that we should inioy them for our health and pleasure: yet we (to our great shame and rebuke be it spoken) are so vnhappy, as to commit our selues to other mens tuition, & liue vnder their warrantize and assurance. Full well I know, that I for my part also, shall haue but small thanks of many a one for all my paines taken in writing this history of the world and Natures works: nay, I am assured that I make my selfe a laughing stocke, and am condemned of them for spending and losing my time in such a frivolous piece of worke as this is. Howbeit, this is yet my comfort and no small contentment I take herein, that my labors and trauels (excessiue and infinit though they be) cannot be despised, but the contempt will redound likewise to dame Nature her selfe. And yet she againe, as a kind and tender nurse ouer mankind, hath not failed (as I wil declare hereafter) for our good, to indue the very weeds which we tread vnder foot with medicinable vertues, yea, & hath bestowed vpon those which otherwise we hate & dare not approach, but with careful heed (for the shrewd pricks and thorns which they carry about them) singular properties to cure diseases. For ouer and besides those whereof I made mention in the booke going next before this, there be other herbs of that pricking kinde, which are so wonderfull in their operation and effects, that I can neuer admire sufficiently and comprehend her prouidence appearing in them. Furnished shee had the earth, with smooth & pricklesse plants enough, in the nature of meats, for to content our tooth, & satisfie our appetite, shee had ingrauen and liuely painted in floures, notable properties in physick for to recouer & maintain our health; & by the singular beauty which she gaue vnto them, to allure the heart and eye of man to look toward them, saying (as it were) Come and gather vs: wherein shee had made a good medley of profit and pleasure together. And when shee had thus done, shee staid not there, but deuised to bring other herbs, hideous to the eie, and vtractable in hand. As if in the forming of them in that fashion, wee might heare her to giue a reason, Why shee so did: saying after a sort vnto vs in an audible voice, That shee made them with pricks and thornes, because shee would not haue the foure footed beasts (as hungry and greedy after meat as they be) to eat them down, That the shrewd hands of some vngracious folk, who can let nothing stand, might not be euer & anon plucking and twitching at them for wantonneffe, that people should not go carelesly trampling vpon them with their feet: finally, for feare that birds pecking & serling aloft vpon their tender branches would slieue them down or knap them afunder. Therefore (I say) with these prickles, seruing in stead of weapons as wel defensue as offensue, shee hath both protected and also armed them: and al to keep them safe and sure, for the health of man, and to do him seruice. Lo, how euen that which wee hate and seeme to abhorre in these herbs, was deuised for our comfort and benefit, if we had the grace to see it.

CHAP. VII.

¶ The medicinable vertues of other floures and herbs seruing for Chaplets. Also of Erynge.

* Sea holly.

A Mong those hearbes which beare pricks, * Erynge or Eryngion, is singular: for a foueraigne hearbe it is against serpents, and all poysons whatsoeuer, as if it grew for nothing els. But to come

A come to particulars, for stings & bitings of venomous creatures, the root therof to the quantity of one dram, is taken in wine. And in case (as most times it falleth out) that a feuer follow vpon such accidents, then the patient must drinke it with water. A speciall and effectuell property it hath against certain land-snakes called Cherydri, and venomous todes, if it be reduced into a liniment, and so applied to the fore. But *Heraclydes* the Physitian is of opinion, That if the said root be boiled in the broth of a goose, it is of more efficacie than all other, against the *Toxica* and *Aconita*. But whereas others do boile it in sheere water against the poisons *Toxica*, *Appellodorus* would haue a frog sodden withal. The herb it selfe is of substance hard, branching much, full of leaues, and those beset with prickles. A stem or stalk it carieth, parted by knots and joints, a cubit high & somewhat more. Moreover, as there is white Erynge, so you shall haue of it black: B The root is odoriferous. Eryngion verily commeth vpon ordinarily of seeds and by setting. But it groweth also in rough and stony places of the own accord. And that which we see along the sea shore is harder and blacker than the rest, leaued also like common Ach or Persely.

CHAP. VIII.

¶ Of the hearbe or thistle commonly called *Centum-Capita*, i. the hundred heads.

C AS for the white Erynge, our countrymen call it in Latine *Centum-capita*. But they be all of one and the same operation and effect. And the Greeks verily make their ordinary meat as well of their stalks as roots, both waies, to wit, either raw or boiled, as they list. Certes, there be wonders reported of this herb; namely, That the root of this white Eryngion (which is very geason and hard to be found) resembleth one while the male sexe, and otherwhiles the female of our kind. But if it chance that a man do meet with that Eryngion which is like to that member which distinguisheth him from a woman, he shall be very amiable and beloued of women. Which was the reason (men say) that lady *Sappho* was so enamoured on the yong knight *Phao* of Lesbos. And verily, as touching this herb, not only the Magitians, but the disciples also and followers of *Pythagoras*, tell vs many vain and foolish tales.

But to come indeed to the vse of it in Physick.ouer and besides those vertues and properties which I haue related already, good it is to resolute ventosities: it easeth the gripes and wrings in the belly; it cureth the diseases and debility of the heart; it helpeth the stomack and liuer. For the midriffe and precordial parts, it is very wholsome taken in honied water: and for the spleen, in vineger & water together. Also drunk in mead or honied water aforesaid, it is singular for the kidneies, the strangury, the cramp or crick that pulleth the head of a body backward: for other spasmes also and convulsions: for the loines, the dropisie, and the falling sicknesse. Soueraigne it is moreover for womens monthly fleures, whether they do stay vpon them, or contrariwise run excessiue from them: and in one word, it cureth all the accidents & infirmities of the matrice. Being applied as a liniment with hony, it draweth forth any offensue thing sticking within the body. And if it be laid too with salt, lard, or hogs grease, and so incorporat into a cerot, it heales the kings euill, the swelling kernels within the eares, and the flat biles and botches. It reioineth also the flesh that is gone from the bone; & finally, souldereth and knitteth broken bones or fractures. Taken before a man sit downe to eat or drink, it preferueth him from surfet or drunkenesse: and bindeth the belly. Some of our Latine writers would haue it to be gathered a little before the summer-folstice, saying moreover, That if it be applied with rain water, it helpeth all the infirmities incident to the nape of the neck, and by their report, if it be bound to the eies, it cureth the pin and the web.

CHAP. IX.

¶ Of *Acanus* and *Liquorice*.

F Some there be who take *Acanus* for a kind of Eryngium. And they describe it to be a low herbe, and yet growing broad and large, full of prickles and thornes, and those likewise bigger than ordinary; being applied outwardly, wonderfull effectuell it is (by their saying) to stanch bloud. Others there are, who haue thought Erynge and *Liquorice* to be all one, but they are deceived. Howbeit, for some resemblance that is between them, I think it not amisse to set downe the description therof immediatly after these Erynges. Doubtlesse this *Liquorice* also is to

* *Echinatis*. It seemeth that *Pliny* neuer saw *Liquorice*, but read it for *ginseng*, *Len-tiss*: & indeed the leaues are like to those of the *Lentiske* tree.

* *In lingue sub-diti*: such as be our *Edigmata* or *Lochs*.

to be counted among these thorny plants, for that the leaues stand *pricking vp sharp pointed; C and the same are fatty, and in handling gummy and glewie. It putteth forth many branches, and those two cubits high: it carrieth a floure in manner of the *Hyacinth*, and beareth fruit resembling bals of the bignesse of those which hang vpon the *Plasse* tree. The excellent *Liquorice* is that which groweth in *Cilicia*; the next for goodnesse cometh from *Pontus*; and hath a sweet root which only is vsed in *Physick*. Taken vp this is and gathered at the setting or occultation of the Brood-hen star, and is found running along in the ground in manner of the *Vine* root: in colour like to the *Box* tree. That which is dusky and somewhat black, is thought to be the better: like as the lithe & pliable root which wil wind and turn euery way, is preferred before that which is brittle and easie to break. Great vse there is of it in those medicines which be *held H vnder the tongue, so to resolue & melt leasurly, namely, after it hath bin sodden to the thirds: yea, and otherwhiles boiled to the height and consistence of hony. Sometimes they vse to bruse it; and in that manner they do lay it vpon wounds, where it doth much good: as also if it be applied to all the diseases and accidents befalling to the throat and jawes. The juice of *Liquorice* reduced to a thick consistence, if it be put vnder the tongue, is singular for to cleare the voice. In like manner it is supposed very wholesome for the brest and liuer. And therewith (as I haue sayd before) both thirst and hunger may be slaked and allaied. Which is the cause that some haue called it *Adipson*; and in that regard ministred it to those persons who be fallen into a dropsie, for to prevent and take away their thirstiness. Therefore it is thought to be a proper remedy for the diseases of the mouth, if it be either chewed, or otherwise cast and strewed vpon the vlcers therein: and so it cureth the excrescences also and exulcerations about the roots of the nailes. Moreover, it healeth the excoriation & forenesse of the bladder, assuageth the paine of the kidneies, cureth the swelling & aking piles, the fissures also in the seat, and finally the vlcers of the priuy parts. Some *Physitians* haue prescribed to drink in a quartaine ague, the weight of two drams of *Liquorice*, & one of *Pepper*, in a draught of water to the quantity of a smal pint or hemina: this root being chewed, staith bleeding in a wound. To conclude, some haue written that it expelleth the stone and grauell.

CHAP. X.

¶ Of the *Caltrop* thistle *Tribulus*. The sundry kinds thereof, and the medicines which they yeeld.

Some of these Thistles come vp in gardens: others grow in and about riuers only. The juice which is drawne from these, is thought to be good for the eies: for this herb being as it is of a cooling nature, is a singular remedy for inflammations and gathering of imposthumes. A good medicine for all vlcers, but those especially which break out of themselves in the mouth: it cureth likewise those of the *Amygdales* or almonds of either side of the throat. If it be taken in drink, it fretteth & breaketh the stone. The *Thracians* dwelling vpon the riuer *Strymon*, feed their horses fat with the leaues of this herb: and line themselves with the kernels or fruit thereof, making a kind of sweet bread therewith, which also bindeth the belly. The root if it be gathered by the chaste and pure hands of a virgin discuffeth and dissolueth the kings euill. The seed if it be tied to the swelling vains, assuageth their pain. Lastly, being beaten into powder and cast into water, it killeth the fleas in any place where that water is thrown or sprinkled.

CHAP. XI.

¶ Of *Stæbe*, and the medicines which it affordeth.

* A kinde of *Matfellow* or *Knapweed*. *Stæbe*, * which some call *Phleon*, boiled in wine, is a soueraigne remedy for cares that run with attar: likewise for bloudshotten eies, especially vpon a stripe or stroke giuen. Being ministred by way of clyster, it is good for the bloudy flux and the exulceration of the guts.

CHAP. XII.

¶ Of *Hippophyes* and *Hippope*, with their medicinable vertues.

Hippophyes is an hearbe growing in grauelly and sandy places, and namely along the seaside, armed with white prickles or thornes: it beareth berries by clusters after the manner of

A of *Iuie*, and those be partly white & partly red. The root is ful of a certain juice, which is good either to be condite and confectioned alone, or els to be reduced into *Trofsch* with *Eruile* meale: *Eruil farina* this being taken to the weight of one *Obolus*, purgeth cholericke humors; and a most wholesome medicine it is, especially with honied wine.

Another herb ther is, named *Hippope*, which neither riseth vp in stalk, nor beareth floure, but hath leaues only, and those small. The juice also of this herb, is wonderfull good for those who are in a dropsie. Where it is to be noted, That these two herbs should haue some especiall properties respectiue to the nature of horses, considering both their names are deriued from nothing else; for in very truth, some things there be which Nature hath brought forth as appropriate remedies for certain particular beasts, whereby we may see her diuine power, and how well appointed she is and provided for to bring forth medicines of all sorts; so as the depth of her providence cannot be founded, neither are we able sufficiently to admire her wit and description in disposing and digesting her remedies according to sundry kinds of creatures, according to diuers causes, and different seasons: insomuch as the remedies seruing one, are not fitted for another, neither are they of the same effect and operation at all times: nay, there is not a day almost in the yere throughout, but it yeeldeth a remedy respectiue vnto it.

CHAP. XIII.

¶ Of the *Nettle*, and the medicinable vertues thereof.

C Is there any thing more hated and odious than the *Nettle*? and yet to say nothing of the oile made of it in *Egypt* (according as we haue shewed heretofore) indued thee is and furnished with many good properties seruing for *Physick*. For first, as touching *Nettle* seed, *Nicander* affirms, That it is a very counterpoison against *Hemlock*, venomous mushrooms, and *Quicksilver*. *Apollodorus* addeth moreover, and saith, That being boiled in the broth of a *Tortoise*, it is singular good for the poison of *Salamanders*: also that it is contrary to the pernicious nature of *Henbane*; and the deadly poyson of serpents, & namely, of scorpions. Euen that very bitterness and mordacity which the *Nettle* hath, causeth the *Vvula* in the mouth which is false, to knit vp againe: the matrice also which is ouer-loose and beareth downe, to arise into the place, yea and the tuill or fundament in children hanging forth of the body, to return & abide where it ought to be, only with touching these parts therewith. If the legs be rubbed, and the forehead especially with *Nettles*, it is a good meanes to awake them out of their drowfie and dead sleep, who are surprised with a lethargy. The same being applied with salt, is passing good for the biting of dogs. If it be bruised and put vp to the nostrils, it stancheth bleeding at the nose; but principally the root of it. If it be tempered with salt, it mundifieth cancerous and foule filthie vlcers; likewise it helpeth dislocations and bones out of joint; it discuffeth or ripeneth botches in the emunctories, and the swelling kernels behind the eares; and healeth vp the places where the fleshy parts be gon from the bones. *Nettle* seed taken in wine cuit (as a drinke) openeth the matrice when it is ready to strangle or suffocate a woman: and being applied with wine, it staith bleeding at the nose. If one drinke *Nettle* seed after supper, with hony and water, to the quantity of two oboles weight, it openeth the passages & maketh way for to vomit with greater facility; but the weight of one *Obolus* taken in wine, refresheth those who haue a lassitude or wearinesse vpon them. The same being parched against the fire and drunk to the measure of one *Acetabulum*, is singular for the imperfections of the matrice: and in cuit, it withstandeth the ventosities and inflations of the stomach. Giuen inwardly with hony in the form of a loch, it doth them good who labor for wind, and cannot take their breath but sitting vpright; and after the same manner it cutteth scume and clenseth the brest of it. Being applied in a bag, together with line-seed, it taketh away the stich and pain in the sides: but some put *hyssope* thereto, and a little pepper. A liniment made therewith, cureth the spleen. Being parched or roasted and so eaten with meat, it keepeth the body soluble. And *Hippocrates* affirmeth, that the said seed is very good to be taken in drink, for to cleanse the matrice in women: and being so parched and giuen to the quantity of one *Acetabulum* in sweet wine cuit, it allaieth the griefe and paine of the said part, in case withall there be a cataplasme applied to the region thereof, together with the juice of *Mallows*. If it be taken in hydromel, i. honied water, together with salt, it expelleth

(by his saying) the worms in the belly. Applied in a liniment to the bare and naked places of the head, it causeth the haire to grow again, and bringeth all to the former beauty. Many doe use to make a cataplasme of Nettle-seed and old oile; or els stamp the leaues together with Bears grease, for the pain of the gout; and verily for that purpose, as also for the spleen, the root poured with vinegar, is no lesse effectually. Being boiled in wine, it discusseth and driueth down ridings in the groine, and such like emunctories, so it be laid too with old hogs grease salted. But the same root dry, is a very depilatorie, and fetcheth haire off. *Phanias* (the naturall Philosopher and Physitian) in a feuerall treatise which he made in the praise of Nettles, professeth, That he knoweth not the like remedy to the Nettle, boiled first and then condite, for the windpipe, the cough, the distillation and flux of the belly, the stomacke, the biles and bitches in the emunctories, the swelling and inflamed kernels behind the eares, and kided heels. The same with oile procureth sweat: and sodden with muscles, and such like shell-fishes, it moueth to the stoole: with ptisane or barley broth, it purgeth the brest, and sendeth down womens terms: applied with salt, it restraineth vlcers that be corrosiue and apt to run & spread farther. The juice also of the Nettle, serueth to many vses; for being pressed forth & laied as a liniment to the forehead in a frontall, it stancheth bleeding at the nose. The same taken in drinke, prouoketh vrine, and breaketh the stone: but if one gargle with it, it staies the Vvula from falling: as for the seed, it ought to be gathered in harvest time: & that which is brought from Alexandria, is esteemed best: for all the particular diseases aboue rehearsed, the kinder and gentler Nettles also, euen those that be yong and tender, are knowne to be of good operation; but principally that wild kind before-said; and this property moreouer it hath, To rid away the leprosie out of the face, if it be taken in wine. Finally, if a foure-footed beast will not abide to be covered or serued with the male of that kind, an ordinary practise it is, to rub the nature or shap with a Nettle, for that will make her stand to the fellow.

CHAP. XIII.

¶ Of *Lanium*, and the medicinable vertues thereof.

AS touching that dead-Nettle, which among the other kinds we named before *Lanium*, Archangell, it is the mildest of all others and most tractable, for the leaues bite not nor sting at all. The same, if it be applied with some corns of salt, to contusions and bruises, to deep burns, the Kings euill, swellings, gouts, and woundes, cureth them all. The white that it hath in the mids of the leafe, is singular for *S. Anthonies* fire, the shingles, and such like. Some there be of our Latine writers, who treating of Nettles, haue couched them in their ranks respectiue-ly to the time, saying, That the root of a Nettle which commeth in the Autumne, cureth the tertian ague; but it must be tied fast to the Patient: and these ceremonies are to be obserued also in the taking it forth of the ground, That the party be named for whom it is gathered; the feuer also, of what type or kind it is; yea and who be the parents of the sick person; and then hee or shee shall be sure to be deliuered of that disease. The said root, with the same circumstances, is of the like operation to driue away the quartan ague also. The selfesame authors do affirme moreouer, That the root of a Nettle being applied with salt, draweth forth all thorns and thim- moreouer, that stick within the flesh. Also, that a cataplasme of the leaues and hogs grease incorporat together, doth resolueth the scrophules or swelling kernels called the Kings-euill: or if they are come to suppuration, eateth and worketh them forth, and doth incrust & fill vp the place again.

CHAP. XV.

¶ Of the herb *Scorpius*: the sundry kinds thereof, and the medicinable properties.* *Scorpioides*.

THere is an herb called * *Scorpius*, which took that name of the resemblance that the head hath to a scorpions taile. Few leaues it beareth; but (according to the name) it is good against the sting of scorpions. Another herb there is of the same appellation, & of like effect to the other; but it sheweth no leaues at all; the stalke is smooth, and resembleth garden Sperage: in the top or head whereof, there is a pricke to be seen like a sting, which gaue occasion of the foresaid name.

CHAP.

CHAP. XVI.

¶ Of *Leucacantha*, and the vertues thereof good in Physicke.

THe Greeks, some call this Thistle, *Leucacantha*, or the white thistle; others, *Phyllon*; some *Ischias*, others, *Polygonaton*; but be the name what it will, it hath a root resembling that of * *Cyperus*, which if it be chewed in the mouth, allaieth the tooth-ache. *Hicetus* saith likewise, That if either the seed or the juice of the root thereof, be taken in drinke to the weight of eight drams, it assuageth the pain of the sides and loins. The same also cureth ruptures, conuulsions and crampes.

CHAP. XVII.

¶ Of *Helxine* or *Perdicium*, called also *Parthenium* or *Sideritis*, and the vertues medicinable.

AS for *Helxine*, some call it *Perdicium*, because Partridges delight most to feed thereupon; others name it *Sideritis*, and many giue it the name of *Parthenium*. Leaues it carrieth of a mixt form and resemblance, between Plantain and Horsehound. The branches or small stalks grow in thick tufts, and those be of a light reddish colour: the seed in the head, of a Bur-kind which sticketh to folks cloaths, whereupon they would haue it to be called *Helxine*. But in the former booke I haue described the form of the right * *Helxine* or *Parietarie* indeed. The property of this herb is to giue a tincture or die to wood: it healeth the shingles and *S. Anthonies* fire: it cureth swellings, and all apostemations of humours, yea and also burnes. The juice thereof incorporat with ceruse or white lead, and so applied, serueth greatly for biles and bitches, *S. Anthonies* fire, tumors, gatherings and risings in the flesh; yea and helpeth them whose throat begins to swell. Also if a man take the quantity of one cyath thereof, it cureth inuenerat and old coughs: it healeth all infirmities either occasioned by phlegmatick humors, or els incident to moist parts: like as with oile rosat it is a proper medicine for the accidents of the amygdals about the passage to the throat; and for the swelling of veins. Moreouer, if it be reduced into the form of a cerot, with goats suet and wax of Cypres, and so applied, it cureth the gout. Moreouer, *Perdicium* or *Parthenium* (for *Sideritis* is another herb) our countrey men call in Latine, * *Vrcolaris*, of others, *Astericum*. In leafe it is like to Basil, saue only that it is blacker; it groweth vpon tile-houses, and old decayed wals, and such ruinous places. Being beaten into powder & applied with corns of salt, it hath the same operation that the Nettle *Lanium*, and cureth the self same diseases; and the one isyled in like sort as the other: & if the juice be drunk hot, it is singular for inward and secret imposthumes full of filthy matter, and driueth them outward. Also it is excellent for vlcers, ruptures, and bruises, whether it be that one hath tumbled head-long from some high downfal, or that he hath bin crushed by the ouerthrow of some wagon or chariot. It fortuned that a Page of *Pericles* a prince of the Atheniens (whom he loued intirely) hauing climed vp to the top of the lanterne or spire of a temple which the said prince built in the castle or citadell of Athens, fel downe from thence, who was cured by the means of this herb, reuealed vnto *Pericles* in his sleep by the goddesse *Minerva*: whereupon it tooke the name first of *Parthenium*, and is consecrat vnto the said goddesse: this is that Page whose molten statue is to be seen at this day made of brasse: this is (I say) that noble and famous image called * *Splanchnoptes*.

* *Parietary* of the wall.* Where, to say a truth, he describeth *Helxine* for *Helxine*, or *Chamaeleon* the white.* *Diole*, *Cerato* *Cypria*.* or *Vitruvia*, because it is vied to scoure glaie and pipkins withall.

* Madewith a deuise to blow coles & kindle fire for to roste the inward of beasts sacrificed: or as some thinke, it was the proper name of that youth.

CHAP. XVIII.

¶ Of *Chamaeleon* the hearbe, the sundry kinds thereof, and the vertues medicinable.

Concerning *Chamaeleon*, some there be who name it *Ixias*; whereof be two kinds: the whiter hath the rougher leaues: it creepeth close by the ground, and setteth vp stiffe prickles in manner of an Vrchin: the root is sweet in tast, but of a most strong sent. In some places it ingendreth a white kind of gum or clammy glew, vnder the wings or arm-pits (as it were) of the leaues, after the same manner as Frankincense is said to breed, but especially about the rising

rising of the Dog-star: & for that it is like to a kind of birdlime, it is called Ixia: our women vse this instead of Mastick. And the reason why this herb is named Chamæleon, is by occasion of the variable leaues which it beareth, for according to the nature of the soile where it groweth, it changeth hew; whereby in one place you shall haue it blacke, in another green; here you shall see it look blew, and there yellow, and euermore altering the color. Of which Chamæleons, the white cureth such as are in a dropsie, if the root be boiled, and the iuice thereof taken to the quantity of a dram in sweet wine cuir. The measure of one acetable of the same iuice, if one drink in a green harsh wine made of the hedge vnripe grape, wherein certain bunches of Origanum haue lien infused, it is thought to be a singular remedy to kill the worms that breed in the guts. It auaieth much also to help those who pisse with difficulty: and yet this iuice being giuen to dogs or swine in barley groats, killeth them. If there be water and oile mingled thereto, it draweth rats and mice to it, but it is their bane, vnlesse presently they drinke water. Some prescribe for to cut the root thereof into thin roundles, and to keep them enfiled vp, or hanging by a string, and then to seeth them; for to be eaten against the flux of humours, which the Greekes name Rheumarismes. Of the black kind, some hath named that the male, which hath the purple floure; and the female with the violet colour. They all grow vp with one stem and no more, and the same is a cubit high, and a finger thick. The roots are good to heale ringworms, tetters, and such like wild fires, if they be sodden together with brimstone and Bitumen: but if the said root be chewed in the mouth, or a collution be made therewith sodden in vinegar, it fastens the teeth which shake and be loose in the head. The iuice of this root healeth the scab or mange in four-footed beasts. Herewith also folke vse to kill the ticks that breed in dogges: but it stoppeth the wind of heifers and yong steers in maner of a squinancy: and therefore of some it is called Vlophonon and Cynozolon, in regard of the strong and stinking smell that it hath. These Chamæleons do beare a certain viscos gumme, most proper for vlcers. And the roots of all the sort of them, as well blacke as white, are singular against the poison of serpents.

CHAP. XIX.

¶ Of Coronopus or Harts-horne, with the medicinable vertues thereof.

Coronopus is an herb bearing long leaues, and those clouen into certain fissures and knage: and howsoeuer it groweth wild, yet otherwhiles it is set and sowne in gardens, for the excellency of the root; which being roasted vnder the ashes, is soueraign for the flux, & weakness of the stomacke.

CHAP. XX.

¶ Of Orchanet or Alkanet, as well the right as the bastard, and their properties in Physicke.

The root of Orchanet is much vsed about medicines: of the thickenesse it is of a finger: it will rend and cleaue in manner of the papyr reed: and it coloureth the hands of as many as handle it, with a red and bloody colour: it prepareth wooll and woollen cloth for to take rich and deepe colours. If it be incorporat into the form of a cerot, it healeth vlcers, especially in old men; as also places that be burnt. It cannot be resolued in water, but it is oile that must dissolue it: and verily this is a good experiment of that which is true and nothing sophisticat. A dram thereof giuen in wine to drink, is singular good for the pain in the kidnies: but in case the Patient haue a feuer vpon him, then it ought to be taken in the decoction of * Balanos. In like manner is it to be vsed in the opilations or obstructions of the liuer, of the spleen, and in the Jaundise. A liniment made of it and vinegar, cureth the leprosie, and the red pimples arising in the face. The leaues stamped with hony and meale vntill they be incorporat together, and so appli- ed as a cataplasme, are thought to be good for dislocations: but if they be taken inwardly to the quantity of two drams in honied wine, they bind and knit the belly. The root boiled in water is said to kill fleas.

Another herb there is much like vnto it, and thereupon called Pseudanchusa [i. bastard Orchanet] of some, but of others Enchusa or Doris; and many other names it hath besides. More full of downe or hairy mosse it is, and lesse fatty; but the leaues are smaller, more ranke and feeble.

* Haply hee meaneth Phoenicobalanos, (i) the Egyptian Date: or Oxyphantes, our Tamarinds, a kind of Dates appropriat for egues.

A feeble. The root yeeldeth no oleous substance, but a reddish iuice; wherein it differeth from the right Anchusa or Orchanet. The leaues or seed being taken in drinke, is a most effectuall counterpoison against serpents. The substance of the leaues being applied to the places which bee stung, are soueraigne for to cure and heale them vp. The very herb it selfe chaseth away all poison of serpents. There is a drink made therof, commended highly for the chine or ridge-bone of the back. The Magitians do prescribe the leaues to be bound vnto some part of the Patient against a tertian ague, with this charge; That they be gathered with the left hand, & that in the gathering, the party or patient for whose sake they are gotten, be named.

CHAP. XXI.

B ¶ Of Onochiles, Anthemis, Lotos, and Lotometra: of Turnsole-Tricoccus: of Adiantum, and Callitrichon.

Another herb there is, particularly named Onochiles, which some call Anchusa; others Arcebion or Onochelis; some Rhexias, and many Enchusa: a small herb this is; it carrieth a purple floure, leaues and branches rough: a root in haruest time as red as blood, otherwise black; and groweth in sandy grounds: effectuall it is against serpents, and Vipers most of all others, both in the root and leafe, as well eaten with meat as taken in drinke. In the full strength it is in haruest. The leaues if it be bruised or stamped, do yeeld the sauer and smel of a Cucumber. If the matrice of a woman be slipt downe, a draught of three cyaths thereof, doth reduce it vp into the place: and together with hyssope, it driueth out the broad wormes in the belly. For the pain of the kidnies or the liuer, it ought to be taken in mead or honied water, if the Patient haue an ague withall; otherwise in wine. The root brought into a liniment, cureth the Lentils or red spots, yea and the infection of the leprosie. And it is said, That as many as haue it about them, cannot be stung by serpents. There is yet another Orchanet or Anchusa like vnto this, in regard of the red floure which it beareth; howbeit a lesse herb than the other, hauing the like operation, and imployed in the same vses. It is reported, That if one chew it in his mouth, & spit it forth vpon a serpent, the same will surely die thereupon.

As touching Anthemis [i. Camomile] Asclepiades the Physitian doth highly praise and commend it. Some name it Leucanthemis, others Leucanthemus; & there be, who giue it the name Eranthemion, because it flourisheth in the Spring; others againe name it Chamæmelon, for the sent or sauer that it hath of an Apple: many call it Melanthemion. Three kinds there be of it, differing onely in the floures (for none of them exceed an hand-breadth in heighth) which bee small, and in forme resemble those of Rue: howbeit, these floures be either white, yellow, or red. In a lean ground and neer to beaten paths, this herb loueth to grow: gathered it is in the spring, and layed vp for to serue in garlands: at which time the Physitians also stampe the leaues and make them vp into Trosches: so do they also by the floure and the root. This vertue they haue; That if they be all mingled together to the weight of one dram, they are thought to be a soueraigne remedie against the sting of all serpents. This herbe expelleth dead infants within the mothers wombe, if it be taken in drinke. It bringeth downe also the monthly fleurs of women; prouoketh vrine, and sendeth forth the stone and grauell. Being chewed, it dissolueth ventosities, it cureth the obstructions and defects of the liuer, it helpeth the jaundise, healeth the fistuloes between the angle of the eye and the nose, and generally all running sores and mattering vlcers. But of all these kinds, that which beareth the red purple floure hath most effectuall operation for the stone: and indeed, both the leaues, and also the branches of this Camomile, are somewhat larger than of the rest: and some there be, who giue this a name it selfe, and call it Eranthemion. As for those who take lotos to be a tree only, may be conuincd euen by the authority and testimony of Homer, who among other herbes growing for the delight and pleasure of the gods, hath named Lotos as principall. The leaues of this herbe incorporat with honey, and so applied, cureth the cicatrices or scars in the eie; the spots also appearing therein, and dissolueth the cloudy skins which ouercast the sight: there is a kind of lotos named Lotometra, coming of the garden Lotos: it carrieth a seed like to Miller, whereof in Egypt the Bakers make bread; but they work & knead the floure of this seed with water or milk. There is not any bread in the world (by report) more wholsom and lighter than this, so long as it is hot; but being once cold, it is harder of digestion, & becommeth weighty & ponderous. This is known for certain,

that as many as liue thereof are infested & troubled neither with the dysenterie or bloody flux, nor any other yet with the troublesome offers and strains to the sieg without doing any thing, nor any other diseases of the belly : and therefore it is counted a principal remedie for those maladies. Concerning Turnfol, I haue oftentimes related the wonderfull nature thereof, namely, how it turneth about with the sun, although it be a close and cloudy day (so great is the loue of this herb to that planet:) and in the night season for want of the Suns prelence, as if it had a great misse thereof, * it draweth in and thrusteth the blew floure which it beareth. Two kinds there are of this Heliotropium or Turnefol, of which the lesse is called Tricocum, the other Helioscopium : of the twain, this later is the taller (and yet neither of them both exceedeth halfe a foot in height) and putteth forth branches from the very root. The seed of this greater forth lieth within a little cod, and is gathered in harvest time : it groweth not but in a fat soil well manured, whereas Tricocum comes vpon euery where. I find, that if it be boiled it is a pleasant and delectable meat ; but foddren in milk it loosneth the belly gently and with ease : for otherwise the bare colature of the decoction in water, if it be taken, purgeth most extremely. The juice of the greater kinde ought to be drawn or gathered in summer at noontide; which, if it be tempered with wine, becometh more strong and effectuall. A property it hath being mingled with oile of roses, to mitigat the head-ach. The juice drawn out of the leafe, medled with salt, takes away werts : whereupon our herbarists haue called the herb in Latine *Verrucaria*. Wertwort : whereas indeed for other better effects and operations that it hath, it serueth to haue some denominations correspondend thereunto: for, a countre-poison it is against serpents and scorpions, if it be drunk with wine or honied water, as *Apollonius* and *Apollodorus* do report in their writings. A liniment made of the leaues cureth the rheumes and distillations of the braine in children; which disease they call * *Siriasis*. Likewise it helpeth contractions of sinues, and the drawing in of joints, although the patient be taken after the maner of the falling sicknesse: and for such as be thus afflicted, a fomentation made of the decoction of this herb, is very wholesome and comfortable: but if one drink the colature thereof, it thrusteth forth the wormes in the belly, and scoureth out the grauell in the kidnies. If Cumin be put thereto, it breaks the stones ingendred and confirmed there already. Boiled it ought to be root and all, the which with the leaues and goats tallow, being reduced into a liniment, is singular good for all kinds of gout. The other kind which we call Tricocum, and is otherwise named Scorpiurion, hath not on-

The other kind which we call Tricoceon, and is otherwise named Scorpiurion, hath not only smaller leaues, but also they incline and bend downward to the ground. A feed it beareth resembling the figure of a scorpions taile, whereupon it took that name. A liniment made therewith is powerfull against all venomous beafts, and namely the perillous spiders Phalangia, but specially against the poison of scorpions. And in truth, look who carry this herbe about them shall not be stung. If a man make a circle or compasse vpon the earth with the branch of this herbe, a scorpion (as some say) being within the same, shall not haue the power to get forth: nay, if the herb be laid vpon a scorpion, or if with the same being wet a man besprinkle the said scorpion, it wil surely die out of hand. It is said, that foure grains of the feed taken in drink, do cure the quartan, and three the tertian: or if the very herb it selfe be laid vnder the patients head, after it hath bin thrice caried about the bed, it worketh the like effect. The seed is of power to stir vp carnal lust. Applied with hony, it discusseth biles rising in the emunctories. Yea & this Heliorropium for a certaintie causeth werts to fall of by the very roots: as also it taketh away all excrecences in the fundament. It draweth down by vrin the corrupt bloud in the reines and loins, lying cluttered about the ridge bone, in case the seed be either applied as a liniment, or sodden in the broth of a cock or capon, and so supped off, or else with Beets and Lentils. As for the utmost rind of this herbe, it is singular for to recouer the fresh and natie colour in places black and blew with stripes. The Magitians and Wife-men do prescribe for the quartan & tertian agues, That the Patient should tie the herbe Heliorropium, with three knots in a tertian, and with four in a quartan, praying withall and making a vow, That he would vndo those knots after he were once cleare of the feuer: but this he must do before the herbe be taken out of the ground.

* Maidenhair. Another property as strange and miraculous is reported of * Adiantum: in Summer it is green: in winter it withereth and decayeth not: it checketh all water, for being bespreint, dashed, and drenched quite therewith, yet it looketh as if it were dry: so great is the antipathy or contrarietie between them: whereupon the Greeks gaue it that name. And otherwise a plant it

A it is fit for Vinet-works and knots in a garden. Some call it Callitrichon, others Polytrichon, both which names were giuen it for the effect that it worketh. For it coloureth the hair [black] And for this purpose it is soddē. 1 wine with the seed of Ach or Persley: and a good quantity of oile is put thereto, for to make the haire curled and to grow thick, by which meanes it keeps the hair from shedding and falling off: 2 kinds there be of it, the white and the black, which also is the shorter. The greater kind they cal Polytrichon: the other, Trichomanes. Both of them haue pretie fine branches shining with a blacke color, and the leaues resemble fearn, in which, the nether sides vnderneath be rough, dusky, and browne: but all the leaues stand directly one a gainst another in order, fastened to the stalkes by slender steles. No root at all these Capillar hearbes haue: but they grow vpon shadowie rocks and walls, dashed and beaten on with waters.

B but most of all they seek after pits or holes of welles and springs, and stony places wherout fountaines issue: and that is a strange & maruellous thing, considering they be not wet with water, nor haue any fence or feeling thereof. They haue a wonderful faculty, and the black especially, to break the stone, and to expel it out of the body. For which cause, rather than for growing on stones and rocks, I beleue verily it was by our countrymen called in Latin Saxifrage. To this purpose, as much as 3 fingers be able to pluck vp, is ordinarily taken in wine: they prouoke vrin: and resist the poison of serpents and venomous spiders. Being boiled in wine, they stay the flux of the belly. A Chaplet made of them, allaieth the head-ach. And a liniment therof is thought good to be applied against the sting of the Scolopendres: but it must be often taken off and renewed, for feare the hearb become ouer-drie and lose all the vertue. In this wise it is to be vsed

C where the haire is fallen away by some infirmite. These hearbes discusse and resoluē the kings euill: they dispatch and rid away the skales or dandruffe in the visage, and heale the skales of the head. A decoction of these Maiden-haires, is singular good for those who are short winded: for the liuer also, the spleene, the jaundise, and the dropsie. An ointment made with Maiden-haire and Wormewood, easeth the paines of the kidney: and in case of strangurie, procureth ease and free passage of vrine. They bring downe the after-birth in women, and their monethly tearmes. Howbeit, drink them with vinegre or the juice of the blackberrie bramble, they stanch bloud. A proper liniment is made therof with oile Rosat, to annoint young children that haue the red gum and be all broken out: but first they would be bathed in wine. The leaues of Maiden-haire stamped with the vrine of a man child vnder fourteene yeares of age, and yet not vndergrowne,

D together with the some of salt petre, is said to keep the bellies of women from wrinkles and riuels vpon child-bearing, if the be annointed therewith. To conclude, men say, That Partridges and cockes of the game will fight more lustily, in case this hearbe bee entermingled with their meat. And the same also is very good for sheepe to grafe vpon about their folds.

CHAPTER XXII.

¶ Of *Picris*, *Thesium*, *Asphodill*, *Alimus*, *Acanthus* or *Brankursine*, *Elaphoboscum*, *Scandix*, *Iasione*. Of *Caucalis*, *Sium*, *Silybum*, *Scolymus*, or *Zimonium*, *Sonchus*, *Chondrillum* or *Chodrilles*: and of Mushrooms.

E The hearbe * Picris tooke the name (as heretofore we haue said) of the notable bitterneſſe which it hath. The leaues thereof be * round. Excellent good it is to take away werts. Theſum likewiſe commeth nothing behind for bitterneſſe: but it purgeth the bellie: for which purpoſe it muſt be ſtamped, ſtrained, and taken in water.

As touching the Aphodell, it is one of the foueraign & most renowned herbs in the world. Some haue giuen it the name Heroion. And *Hesiodus* hath written that it growes in the woods. *Dionysius* saith, That there is both male and female of it. Certain it is, that the bulbous roots of the aphodel foddren with husked barley, is a singular restoratiue for those bodies which are wasted with a consumption, & especially of the lungs: and bread made of them, wrought together with corne meale of floure into a dough, is most wholesome for mans bodie. As for *Nicander*, he vsed to giue either the stem which we called Antherichon, or the seed, or els the Onion bulbous roots thereof, in wine, to the quantitie of three drams, as a preferuatiue against serpents & scorpions: and to preuent the feare and daunger of these harmefull and pestilent creatures, hee appointed the same to be laid vnder folks heads as they lay asleep. Vsuall also is this herb giuen against venomous fishes of the sea, and the Scolopendres of the land. In Campaine, the shell
snails

* A kind of
Cichorie.
* So are none
of our Cicho-
ries.

snailles haue a wonderf ull spight against the maine stalke of this hearbe Asphodel, for they neuer lin sucking it, vntil they haue made it as drie as a kex. The leaues also are reduced into a liniment, for to be applied to enuened wounds, occasioned by such serpents & hurtful beafts. Likewise an ointment may bee made of the bulbous roots thereof, stamped together with Barley groats, for to annoint the sinews and joynts. Good it is also to cut them into roundles, and therewith together with vinegre, to rub ring-wormes and tetteras. In like manner if they be applied with water, they doe cleanse putrified and rotten vlcers, yea, and the hot apostemations of the paps and the cods. Being sodden in wine lees, and so laid to the eies with a fine linnen rag betweene, they cure the flux of humors thither, which causeth the eyes alwaies to water. Generally in any disease whatsoeuer, Physicians vse the root of this hearbe boiled for the most part, rather than otherwise: likewise for the mor-males and vgly sores in the legs, they vse the powder of them dried: as also for the fissures and chaps appearing in any part of the body. Now, the only fit and conuenient season to gather these roots is in Autumne, at what time they bee most in force. Being stamped raw, or sodden, there is a juice pressed forth of them: which is soueraigne with honey, for any pains of the bodie, whether it be the collicke, or seated in the muskles. And the same being mixed with the drie root of Flower-de-lis, and a little quantity of salt, is passing good for those that affect a sweet smell, and would palliat the ranke sauer of any part of the body. Moreover, the leaues of the Asphodel serue for al the former maladies, as also for the kings euill: for red and flat biles, gout-rofat, sauce-fleame, ale-pocks, and such like vlcers in the face; if the same be sodden in wine, and therewith the grieved parts bathed. The ashes of the root burnt, bring hair againe vpon the head where it was lost and gon, and healeth vp the chaps and rifts in the feet. The juice of the root sodden in oile, is good for kided heles, for burns or skals. To help the hardnes of hearing, the same juice is to be dropped into the eares, but to assuage the rooth-ach, it must be intilled into the ear of the contrary side. The same root taken in drink moderately, is singular for to procure vrine, to prouoke womens moneths, and to mitigat the paine of the sides or pleurisie. But giuen in wine to the weight of one dram, it cureth ruptures, convulsions, fides or pleurisie. The same being chewed, helpeth forward vomites, and causeth them to come with more ease. The seed, if it be taken inwardly, troubleth and wringeth the belly. *Chrysomus* the Physician vsed to boile the root in wine, and therewith cured the swelling kernills and inflammations behind the eares: also, with an addition of ** Cachrys* and wine, he healed the kings euill. Some say, that if one take the Asphodel root, and lay one part thereof to those swelling kernills called the kings euill, and remoue it vpon the fourth day, letting the other part hang in the smoke; the said kernills wil drie away, euen as the root doth in the chimney. *Sophocles* (for the gout) vsed the root both waies, as well raw as boiled. In case of humble-heels he applied it sodden in oile: but to them that were fallen into the jaunise or dropsie, he gaue it in wine. Some writers haue set down in their books, that if either the members of generation be annointed with a liniment made therewith and wine and hony together, or if the same be taken in drink it will mightily prouoke fleshy lust. *Xenocrates* affirmeth, That a decoction of the root in vinegre taketh away the ring-worms, tetteras, & running scabs. Item, If the root be boiled with Hengre bane and Tar, and therewith the armholes and parts between the legs be well rubbed, it wil rid away the strong and rank sauer which commeth from thence, and if the head be first shauen, & afterwards rubbed with the said root, the haire comming afterwards will curle and frizzle the better. *Simus* the Physician boileth it in wine, and so giueth it in drinke, for to scoure away the stones of the kidnies. *Hippocrates* prescribeth to giue the seed against the hardnes of the spleen and the flux proceeding from thence: furthermore, the root being brought to a liniment, or the very iuice thereof sodden and vsed accordingly, healeth the farlins, mange, and scab, in horses, and reduceth the place to bear hair again as faire as before. Asphodel hath a property to chase away mice and rats: and if their holes be stopped vp therewith, they die within.

Some are of opinion, that *Hesiod.* called Alphodel, a limon: which I take to be a meer vntruth: for ther is an herb by it self called Alimon: about which writers haue erred not a little: for some say, that it is a shrub growing thick, of a white color, without any prick or thorn, bearing leaues like the Oliue tree, but they be softer: & this plant is entertained in the kitchen, there sodden and dressed for to be serued vp as meat to the table: the root taken to the quantity of one dram in honied water, dispatcheth the torments of the belly: it cureth also convulsions and ruptures. Others affirme, that ** Alimon* is a sea-wort, of a salt and brackish tast, whereof it had the name.

The

* The seed of a kind of Rose-mary:

* Alyris rather according to *ebins*.

A The leaues beround, and yet after a sort long withall: and the whole herb is highly commended for the pleasant tast, and good to be eaten. Moreover, there be two kinds of it: for the one is wild, the other is of a more ciuill and gentle nature. And both of them, by their saying, are good to be eaten with bread for the bloody flixe, euen when the guts be already exulcerate: but with vinegre, for to comfort and help the stomach. A liniment made of Alimon raw, is singular for old festered vlcers, and the same mitigateth the symptomes that follow green wounds: as also assuageth the pains ensuing vpon sprains and dislocations of the foot: yea & pacifieth the grief of the bladder. The wild of this kind hath smaller leaues, but more effectual it is in the remedies before said: and withall, healeth the scab as well in man as beast.ouer and besides, they do affirm, That if the body be rubbed with the root, the skin wil be the fairer and more smooth: or if the teeth be so serued they will be the whiter. Also that whofoeuer hold the seed thereof vnder their tongues, they shall not be dry nor feel thirst. This kind is likewise eaten at the board, and both of them are kept and preserued condite. *Crates* hath made mention of a third sort; which hath longer leaues than the rest, and more rough in the hand, in smell resembling the Cipres tree, who saith, that it delighteth principally to grow vnder the Yuiue tree: which if it be taken to the weight of 3 oboli in a sextar of water, helpeth those that haue their heads & bodies drawn far back, and such as be troubled with the contraction and shrinking of sinues.

As touching *Acanthus* or *Brankursine*: an herb it is cherished much in gardens, proper for vinets and stony-workes, bearing vpright and long leaues, wherewith beds-sides and borders of quarters in gardens are decked and beautified. Two kinds there be of it: one with prickly leaues in manner of thistles, and the same jagged, which is the lesse & lower of the twain: but the greater, which some in Greeke call *Paderos*, others *Melamphyllon*, is smooth leaued. The leaues of this *Brankursine* being applied, are wondrous good for burns and dislocations. Also being sodden with meat, and especially with *Ptisane* or husked barley, it is singular for those who are bursten, troubled with the crampe, and subiect to the consumption of the lungs. Also if they be stamped and reduced into the form of a liniment, and laid too hot, they cure the gouts proceeding from an hot cause.

The herb ** Bupleuron* is reckoned by the Greeke writers in the number of worts that grow of themselves: a item it hath of a cubit in height, many leaues, and those growing long in a spoke-tuft or roundle in the head, in manner of Dill; highly commended by *Hippocrates* for good meat, but *Glycon* and *Nicander* praise it as much for the vse thereof in Physick: and in very truth the seed is powerfull against serpents. The leaues also or the very iuice incorporate with wine into the form of a liniment, they employ for to bring down the afterbirth of women newly deliuered: as also the leaues with salt and Wine are vsed by way of cataplasme, for to dissolue the swellings called the Kings euill. As for the root, it is vsually giuen in wine against venomous serpents, and to prouoke vrine.

** Buprestis* is an herb about which the Greeke writers haue shewed themselves, namely, how inconstant and light of credit they be; in that they haue so highly praised it to be a speciall wholsom meat, yea and a singular remedie against poisons. For the very name sheweth evidently that it is a poison it selfe, of kine and oxen at lewse. And they themselves do confesse, that if such cattel tast of ** Buprestis* it wil make them enraged, and fall a gadding vntil they burst in sunder. And therefore I will not speak any more of this herb; for there is no reason that may induce me to describe these venomous weeds among those that serue for the green garlands aforesaid made of grasse: vnlesse haply it be this, That some one or other would seek after this herbe to weare it in a chaplet for lust-sake: ** which indeed they say it wil prouoke no lesse that way, than if it were taken in drinke.*

** Elaphoboscon* is an herb growing vp with a main stem, after the maner of *Fenel*-geant: the same is full of knots and joints as thick as a mans finger. The seed is made after the fashion of berries hanging downe in manner of *Sili* or *Siler*-mountaine; howbeit nothing bitter they are, and the leaues resemble those of *Alisanders*. This herb is taken for a commendable meat; and in truth is kept also and preserued a long time confected and condite, for a singular remedie to procure vrine, to allay the pain of the sides in the pleurisie, to heale ruptures, to cure convulsions and cramps, to dissolue ventosities, to assuage the dolorous torment of the collicke, yea, and as a very countre-poyson against the sting of serpents and all other creatures armed with stings: for the report goeth, That flags and hindees by feeding thereupon withstand the venom of Serpents.

* Some name it *Hares care*.

Hesiod *Buprestis* *olis* *Buprestis* *scitum* *ucumantum*:

* But they meane the venomous Insect *Buprestis*.

* In truth the *Buprestis*, which some take to be *Cinthis*, are thought to haue some operation in that kind.

* Which some take for a kind of wild angelica or *Gratiola* dei.

pentis. The root also reduced into a liniment with Sal-nitrum put thereto and incorporate together, cureth old sores called fistulae. But the said root ought to be dried first for those purposes, to the end that it should not be full of the own juice and moisture: and yet this humour dulleth not the vertue thereof, nor maketh it lesse effectually against the sting of serpents.

Pecten ueneris,
wild Chervile,
or Shepherds
needle.

Touching the herb * Scandix, the Greeks haue ranged it also among the wild worts, or pot-herbs good for to be eaten, according to *Opion* and *Erasistratus*. The same being sodden, knitteth the belly and stoppeth a laske. The seed taken with vinegre presently stayeth the yox or hiequer: it prouoketh vrin, and serueth well in a liniment to heale vp burns. The juice of it being boiled to a juleb, is good for the stomach, liuer, kidnies, and bladder. This is the herb which *Aristophanes* the Comedian twitted the Tragicall Poet *Euripides* by, obiecing vnto him merily by way of a scoffe, that his mother, who was a gardener, vsed to sit in the market and sel neuer a good wort or pot-herb indeed, but made her markets only of Scandix. And verily I would say that * Anthriscus were the same herb, if it had smaller, tenderer, and sweeter leaues. This peculiar praise and commendable propertie it hath, that if the body be overlaid and wearied with the vse of women, it restoreth the spirits and refresher them again. Yea & such as be wel slept in yeares, and begin to droup, it maketh lusty and able to perform the act of generation youthfully. It stayeth the flux of the whites in women.

Our Chervile.

A kinde of
smooth Bind-
weed.

Moreover, * Iasione is counted also a wildewort, comming vp of it selfe and good to be eaten. This herb creepeth by the ground, full of milke it is, and beareth a white floure which some call Concilium. The like name and commendation there goeth of this herbe for stirring vnto letcherie. Being taken raw with meat in a vinegre sauce, it breedeth plenty of milke in women. A singular restorative it is for them that feeble themselves wearing & decaying by a consumption. A liniment made therewith and applied to the head of yong infants, causeth hair to come vp thicke: and by shutting the pores of the skin more close, it is a means to retain the hair still that it shed not easily.

Bastard Parsly

As for * Caucalis, an herb like to Fenel, but that it hath a short stalke and a white floure: it is good also to be eaten, and is besides counted a cordial. A drink likewise is made of the juice thereof, passing comfortable to the stomach, of power to prouoke vrin, to expel grauel & stone, and to stay the itching within the bladder: it doth subtiliate the grosse and tough slegm which causeth obstructions in the spleen, liuer, and kidnies. The seed being taken inwardly helps forward the monthly sicknesse of women when it stayeth vpon them, and drieth vp the cholericke humors which flow after child-birth, or the after-burden. It is giuen also to men for the spilling of natural seed, or the running of the reins. *Chrysippus* is of opinion, that it is singular good to help women for to conceiue, if they be desirous of children. But the manner is to drinke it in wine next the heart fasting. And as *Petrus* the Poet hath deliuered in verse, a liniment of this herb is singular against the poisons of venomous sea-beasts.

A kind of wa-
ter Cresses or
Lauer.

Among these herbs is reckoned * Sion, a plant growing in waters of it selfe, with leaues like Parsly or Smallach, but that they be larger, fatter, & of a deeper blackish green: it beareth seed plentifully, and in tast resembleth water-Cresses. It is thought to be excellent good for those that cannot make water, for the diseases of the reins, and paine of the spleene, yea and for women whose monethly termes are suppressed; whether the substance thereof be taken as meat, or the juice of the herb decocted, or the seed drunk in wine to the weight of two drams. It breaks the stones ingendred within the body, and notwithstanding it groweth in water, yet it euacuateth those aquosities and waterie humors which ingender the same. Being clisterized it helps those that haue the bloody flux. If women anoint their faces with a liniment made of it ouer-night, it doth embellish their skin at one instant and with one dressing: yea, it taketh away the pimples and spots that disfigure the face, in manner of Lentils. This ointment is held also to be good for the farins and such sores, in horses and such like beasts, and to mitigat the grievous paines and trouble of any ruptures.

As concerning Silybus, an herbe like vnto the white Chamæleon, and as full of thornes; it groweth abundantly in Cilicia, Syria, and Phoenice: and yet in these countries they make not so much account of it as to bestow the dressing of it, it asketh so much adoe in the kitchen, before it be in case to be serued vp in the hall. And for physicke there is no goodnesse in it at all.

The plant * Scolymus is vsed also much to be eaten in the East parts, where they call it by another name Limonia: It neuer exceedeth a cubit in height: the leaues be crested: the root

blacke,

Some take
these for our
Artichokes.

A blacke, but yet sweet. *Eratosthenes* commendeth it as a principal dish for a poor mans table: and it is said that it hath a special vertue to prouoke vrine: and with vinegre if it be applied, to cure the foule tectars called Lichenes, and the leprosie: also by the testimony of *Hesiodus* and *Alcæus*, if it be taken in wine, it inciteth to wantonnesse and fleshly pleasures. These Poets doe write, That when this herbe doth flourish and is at the best, then grasshoppers chaunt loudest and sing most shrill: and as women at such a time be most desirous of mens company and hottest in lust, so contrariwise men are most loth to turn vnto them, and least able to content their appetites: as if Nature to satisfie the pleasure of these good wiues, had prouided against that faint season, the help of the Artichoke, as a viand most powerful at this time to set their husbands in a heat, and to enable them to that businesse. Moreover, an ounce of the root cleansed from the pith, sodden to the thirds in three hemines of the best Falerne wine, and either taken in drinke vpon an emptie stomach, presently after that one hath sweat, and is new come forth of the Baine: or else to the quantitie of one cyath immediately after euery meale, doth correct and take away the stinke and ranke smell of the arme-pits. And a straunge thing it is, that *Xenocrates* affirmeth vpon his owne experience, and promisseth, That this decoction is of such efficacie, that it causeth the said strong sent to passe away by the vrine.

Moreover, the * Sowthistle is an hearbe for to be eaten, for we read in the Poet *Callimachus*, * Sonchus. That the poore old woman *Hecale*, at what time as prince *Theseus* fortunated on necessitie to take his repast in her simple cottage, made him a feast, and set before him a principal dish of Sowthistles. Two kinds there be of them, the white, and the black: both like vnto lettuce, but that they are full of pricks. They run vp into a stalke of a cubite in height, the same is cornered and hollow within, but breake it, and you shall see it run out with milke plentifully. The white, which hath that bright colour of the milke within it, is thought to be as good as Lettuces, for those that be streight winded, and cannot take their breath but vp-right. *Erasistratus* sheweth plainly, That if it be eaten, it expelleth grauell by vrine: and chewed only, it correcteth the stinking fauor of the mouth, and causeth one to haue a sweeter breath. The juice thereof drawn to the measure of three ciaths, made hot in white wine and oile, and so taken, helpeth women in labor, that they may be soone deliuered, but presently after they haue drunk it, they ought to stir their bodies and walke vp and down their chamber. Also it is vsed to be sodden in broth, and so supped vp. The very stalke therof being boiled, maketh milch nourses to haue good store of milke, and the children at their breast to be better coloured. But most excellent it is for such nourses as feeble their milk to cruddle in their breasts. The juice thereof dropped into the ears, doth them much good, and a measure of one cyath drunk hot, is as good for the strangurie. But in the fretting and gnawing of the stomach, it would be taken with Cucumber seed and Pine-nut kernils. Applied in form of a liniment, it cureth the apostemations in the fundament. A drinke is made thereof, which is a countrepoyson against serpents and scorpions: but then the root also must be laid outwardly vnto the sore place. The same root boiled with oile within the pill of a pomgranat, is a good remedie for the paines and maladies of the ears. Note, that all these vertues must be vnderstood of the white Sowthistle. And *Clemporus* doth accord hereunto as touching the white, but he alloweth in no wise to eat of the black, for he is of opinion, that it breedeth diseases. *Agathocles* also prescribeth the juice of the white Sowthistle to them who haue drunk Bulls blood, and suspect themselves poysoned therewith. Howbeit, they be all agreed, that the blacke is refrigeratiue: in which regard it ought to be applied outwardly with Barly groats. *Zenon* declareth, That the root of the white Sow-thistle, cureth the strangurie.

As for * Chondrillon or Chondrille, it hath leaues like to Endiue or Cichory leaues gnawed or eaten round about: a stem not a foot high, and the same full of a bitter iuice: a root like vnto * Beane, and otherwhile there be many of them together. This hearbe putteth forth close to the ground a certain kind of gum like Mastick, swelling out to the bigneffe of a Bean, which being applied to the naturall parts of women, is said to draw down their monthly courses. The same hearbe being stamped root and all together, and digested into troches, is thought to be singular good against serpents: and a probable reason herof is collected, because the field mice and rats when they are stung by serpents, haue recourse to this herbe, and eat thereof. The juice drawne out of this herb, after it is sodden in wine, bindeth the belly. The same is singular good to rectifie, couch and lay euen the disorderly hairs of the eye-lids, as effectually as the best gum in the world. *Dorothens* the Poet hath deliuered in his verses, that it is good for the stomach, and helpeth

* Gum Sueda
coria.

* Dioscorides
is full and fresh
but it seemeth
that Plinie
read it misse.

helpeth digestion. Some hold opinion, That it is naught for women & hurtful to the eies, also that it is contrarie to the seed of man and doth hinder generation.

Among all those things which are eaten with danger, I take that Mushromes may iustly be ranked in the first and principal place: true it is, that they haue a most pleasant and delicat tast, but discredited much they are and brought into an ill name, by occasion of the poyson which *Agrippina* the Empreffe conueighed vnto her husband *Tiberius Claudius* the Emperour, by their means: a daungerous president giuen for the like practise afterwards. And verily by that fact of hers, she set on foot another poyson, to the mischiefe of the whole world and her owne bane especially (euen her own sonne *Nero*, the Emperour, that wicked monster.) The venomous qualitie of some of these Mushromes, may be soone known by their weak rednesse, their mouldy hew so vnpleasant to see to, their leaden and wan colour within-forth, their chamfered streakes full of chinks and chaps, and finally, their edges round about pale and yellow. For others there be that haue none of all these markes: but are drie, and carie certain white spots like to drops or grains of Sal-nitre, putting forth in the top out of their tunicles. And in truth, before that the Mushrome is formed, the earth bringeth forth a certain pellicle or coat first, called in Latin *Volua*, for this purpose, that the Mushrome should lie in it: and then afterwards shee engendreth it enclosed within, much like as the yolke of an egge couched within the white. And so long as the Mushrome is young and not come forth, but lieth as a babe within, the said core or tunicle is as good meat as the Mushrom it selfe: but so soon as the Mushrom is formed, this membran breaketh, and incontinently the body or substance therof is spent in the stele or foot that beareth it vp: and seldom shall you see 2 Mushromes vpon one of these steles or feet. Moreover, these mushrooms take their first originall and beginning of a slimy mud, and the humor of the earth that is in the way of corruption: or els of some root of a tree, & such for the most part as beare Mast. It seemeth at the first, as if it were a kind of glutinous some or sorh, then it growes to the substance of a pellicle or skin, and soone after sheweth the Mushrom indeed, bred, formed, and consummat within, as is aforesaid. And verily al such are pernicious and vtterly to be rejected neer to which when they come new out of the ground, there lay either a grieue-stud or leg harneis-naile or some rustie yron, or so much as an old rotten clout: for looke what naughtiuesse soeuer was in any of them, the same they draw and conuert into venome and poyson. But none are able to discern these hurtful Mushromes from others, how curious and circumspect soeuer they be, saue only the peasants of the country where they grow, and such as haue the gathering of them. And here is not al the mischiefe that lieth in them: For dangerous they be otherwise, and meet with more meanes to make them deadly, namely, if a serpents hole or nest be neare by, or if at their first discouerie and coming forth, a serpent chance to breath and blow vpon them: for so prepared they be and disposed as a fit subject, to enter, that presently they will catch and entertain any poyson. And therefore on any hand we must not be bold and lusty with them before the time that serpents be retired into the ground, & there taken vp their harbor. Which is an easy matter to know, by the tokens of so many herbs, trees, & shrubs, which from the time that they first came abroad about ground, vntill they haue taken vp their winner lodging again, looke alwaies fresh and Greene: and principally by the leaues of the Ash, alone, if there were no more trees: for Ashes neither bud and spring forth, but after that serpents come abroad, nor shed and fall away, before they be gone into the ground again. In summe, this would be noted, That Mushromes be vp and down, come and gon, alwaies in a seuen-night space. Thus much of the Mushromes named in Latine *Boleti*.

CHAP. XXIII.

Of other Mushromes or Tad-stoles called *Fungi*. Of *Silphium*, and *Lafer*.

As touching those excrescences in manner of Mushromes, which be named *Fungi*, they are by nature more dull and slow. And albeit there bee many kinds of them, yet they all take their beginning of nothing els but the slimy humor of trees. The safest and least daungerous be those, which haue a red callositie or outward skin, and the same not of so weak a red, as that of the Mushromes called *Boleti*. Next to them in goodnesse are the white, and such as haue a white foot also, bear a head much resembling the *Flamins* turbant or mitre, with a tuffet or crest in the crown. As for the third sort that be called *Suilli*, as one would say, Swine-Mushromes

roms or Puffs, they are of al others most perilous, and haue the best warrant to poyson folk. It is not long since that in one place there died thereof, all that were of one household; and in another, as many as met at a feast and did eat thereof at the same bound. Thus *Annius Serenus*, capitaine of the Emperour *Nero* his guard, came by his death, with diuers coronels and centurions, at one dinner. And I wonder much, what pleasure men should take thus to venture vpon so doubtful and dangerous a meat. Some haue put a difference of these mushrooms, according to the feuerall Trees from which they seeme to spring, and haue made choise of those that come from the Fig-tree, the * Birch, and such as beare gum. For mine own part, as I haue said before, I hold those good that the Beech, Oke, and Cypresse trees doe yeeld. But what assurance can a man haue hereof, from their mouths who sit in the market to sell them? for all the sort of those Puffes and Toadstooles look with a leaden hew and wan color. Howbeit, the nearer that a Mushrome or Toadstoole commeth to the color of a fig hanging vpon the tree, the lesse presumption there is that it is venomous.

Touching the remedies for to help those who suspect they haue eaten these dangerous mushrooms, I haue said somewhat already, and wil say more hereafter. Mean while this would be noted, that as perilous as they be, yet some goodnesse there is in them, and diuers medicines they doe yeeld. First and foremost, *Glancias* thinketh and affirmeth, That the Mushromes *Boleti* be good for the stomacke. As for the swine mushrooms, named in Latin *Suilli*, they are hanged vp to dry inslued vpon a rush running through them, as wee may see in those that come out of *Bithynia*. And these are supposed to be singular for those fluxes and catarrhs that take a course to the belly and breed fluxes, called by the Greekes *Rheumatismes*: these cure the excrescences of the flesh, that rise in the fundament; for they eat them down, & in tract of time consume them quite: also they are good to take away the pimples and freckles that appeare vpon the skin, like to Lentils, yea and the deformities and spots in womens faces that disfigure their beauty: these mushrooms be * washed as lead, for to enter into collyries and eye-salues: and a liniment is made thereof, which being applied with water, cleanseth filthie sores and vicers, cureth the skals that breake out in the head, and healerth the wounds occasioned by the biting of dogs.

And now for that our fine mouthed and dainty wantons who set such store by their tooth, take so great delight to dresse this only dish with their own hands, that they may feed thereon in conceit and cogitation all the while they bee handling and preparing the same, furnished in this their businesse with their fine knives and rasors of amber, and other vessels of siluer plate about them: I for my part also am content to frame and accomodate my selfe to their humorous fanisie, and will shew vnto them in generall, certaine obseruations and rules how to order and vse them, that they may be eaten with security. Marke then those mushrooms, which in the seething proue hard and tough, such be all of them hurtfull: Lesse daungerous they be, if some salt-nitre be put to them whiles they be a boiling ouer the fire; provided alwaies, that they be fully sodden before they be taken off. Also, a man may be more bold to eat those which be sodden together with flesh meat, or with the tails or steles of peares. The eating also of peares immediatly after one hath fed vpon Mushroms, doth kil or dull all the malice that they may haue. Also vinegre is of a contrary nature vnto them, and doth extinguish or mortifie their venomous qualitie. To conclude, all these mushrooms do come vp and are engendred in rain. Semblably, good showres doe breed *Silphium*.

This *Silphium* came at the first from *Cyrenæ* (as I haue before written) but now adays, since time that all the *Cyrenæick* *Silphium* is destroyed and gon (as hath bin said) the greatest store thereof is brought out of *Syria*: howbeit so good it is not as that which *Parthia* yeelds, though it be better than that which the merchants bring ouer with them out of *Media*: this * *Silphium* is of great vse in Physicke, for the leaues are sodden in white odoriferous wine: of which decoction, there is made a drinke for to cleanse and purifie the matrice, and to expell the dead infants therein; so it be taken to the measure of one *Acetabulum*, immediatly after the woman hath bin in the stouue, and there swet. The root is singular for to cleare the windpipes, and to take away all the asperity and roughnes in those parts; and being applied in form of a liniment, it helpeth impostumat inflammations proceeding from the ranknes and ebullition of the blood: & yet as many as take it at the mouth and eat thereof, find that it is hard of digestion, for it breedeth ventosities and causeth much belching. Hurtful also it is and contrarie to the free passage of vrine. A liniment made thereof together with wine & oile, is a most familiar and agreeable medicine

* *Betula*, non *Ferula*.

* *Lavaniturus* *plumbum*, some read *Lavanur* ad *plumbum*, (i.e.) a liniment is made of the for lead-shotte eyes, &c. vide cap. 2. lib. 25.

* or *Laserpitia*.

tered into the vertues and operations of Hony, I must of necessity handle and declare the qualitie of Hydromel or honied water, so neere a dependant thereto.

Of which there be two kinds: the one is fresh and new made in haste vpon occasion, and presently vsed: the other is kept and preserved. As touching the former Hydromel, if it be made as it should be of dispumed and clarified hony, it is of singular vse in that exquisite & spary diet fit for sick persons, and namely in meats of light digestion, such as is a thin gruell made of naked frumenty washed in many waters: also to be ioyned in restoratiues for to recouer the Patients strength much enfeebled. Moreouer, good it is for the mouth and the stomacke, to mitigate the fretting humors settled and bedded therein, & to cool the extremity of heat: for I find in good authors, that to ease and mollifie the belly, it is better to be giuen cold than otherwise: as also that it is a proper and conuenient drink for those who chile and quake for cold: likewise for such as be heartlesse & haue smal or no courage at all, whom those writers call * Micropsychos.

^a Somereade
luxuriosities
out of Diolcor,
hauing a faint
& weak pulse.
^b Corpulenta
perum.

Moreouer, there is a reason rendred full of infinite subtiltie, and the same fathered first vpon *Cato*, Why the same things feel not alwaies bitter or sweet alike in euery mans tast: for he saith that this diuersitie proceedeth from those little mores or * bodies that go to the making of all things: whiles some of them be smooth, others rough & rugged; some cornered, others round: in sum, according as they be more or lesse respectiue and agreeable to the nature of each man: this is the cause, that those persons who are ouer-wearied or exceeding thirsty, be more choleric and prone to anger. Good reason therefore, that such asperity of the spirit, or rather indeed of the vital breath, should be dulced and appeased by the vse of some sweet and pleasant liquor which may lenifie the passage, and mollifie the conduits of the said spirit, that they do not cut, I race, and interrupt it going in & out in drawing or deliuering the wind. And in very truth, euery man may find by experience in his own self, how meat and drink doth moderat and appease anger, sorrow, heauinesse, and any passion or perturbation of the mind whatsoeuer. And therefore those things would be obserued which make not onely to the nourishment and health of the body, but also serue for to rectifie and reform the maners and demeanor of the mind.

Now to return again vnto our Hydromel or honied water, very good, by report, it is for the cough, and being taken warm it prouoketh to vomit: put oile thereto, and it is singular against the poison of Ceruse or white lead. A countre-poison also it is and a preferuatiue to such as haue eaten Henbane and Dwale, especially taken with asses milk, as I haue obserued hertofore. Instilled into the ears, or poured into the fistulous sores of the secret parts, it is thought to be excellent. Incorporat with the crums of soft bread, and reduced into the form of a pessarie, and so put vp, it is singular for the infirmities of the natural parts of women, and being applied accordingly, it taketh down all sudden swellings [occasioned by windinesse,] cureth dislocations, and in one word, mitigateth all pains. Thus much of Hydromel new made: for our moderne physicians haue vtterly condemned the vse of that which is kept vntill it be stale. And this they generally hold, That it is not so harmlesse as water, nor so solid and powerfull in operation as wine. Howbeit let it be long kept it turneth into the nature of wine, and (as all writers do accord) then is it most hurtfull to the stomack, and contrary to the finewes.

As for honied wine, the best and most wholsome is alwayes that which is made of the oldest wine, that is hard: and indeed with it you shall haue it to incorporat very easily; which it will neuer do with any that is new & sweet: and being made of green, harsh, or austere wine, it doth not fill and charge the stomacke, no more it doth being made of boyled hony; and ingendreth lesse ventosities, which is an vsual thing with hony. This honey bringeth them to appetite of meat who haue lost their stomack. Taken actually cold, in many it loosneth the belly; but being hot it stayeth and bindeth the same. The honied wine is very nutritiue and breedeth good flesh. Many haue held out a long time fresh and lusty in their old age, with the nourishment of honied wine alone without any other food: whereof we haue one notable example of *Pollio Romanus*, who being aboue an hundred yeres old, bare his age passing well: whereat the Emperour *Augustus* of famous memorie maruelled much; and being vpon a time lodged as a guest in his house, he demanded of him, what means he vsed most so to maintaine that fresh vigour both of body and mind? to whom *Pollio* answered, By vsing honied wine within, and oile without. *Varro* saith, that the yellow jaundise was called a * Kings disease, or a sicknesse for a King, because it was cured ordinarily with this honied wine, called Mulse.

As touching another kind of honied wine, named Melitites, how it is made of Must, or new wine

^a Regius mor-
bis.

A wine & hony together, I haue declared sufficiently in my treatise of wines. But I suppose there hath bin none of this sort confected these hundred yeares past and aboue, for that it was found to be a drink which bred ventosities in the stomacke and other inward parts. Howbeit, the manner was in old time, to prescribe it for to bee giuen in agues, to make the bodie soluble, prouided alwaies, that it had the due age: also to those who lay of the gout: to such likewise as had weake and feeble sinews: and to women who abstained altogether from meere wine.

Next after Hony, the treatise of Wax (which is correspondent to the nature of hony) by good order followeth. Concerning the originall working and framing thereof, the goodnesse, the seueral kinds according to diuers countries, I haue written in conuenient place. This is generally obserued, that all sorts of wax be emollitiue, heating, and incarnatiue, but the newer and fresher they are, the better they are thought to be. Wax taken inwardly in a supping or broth, is singular for the bloody flux and exulceration of the guts: so be the very honey-combes giuen in a gruell made of frumenty, first parched and dried at the fire. Contrarie it is to the nature of milk: for take ten grains of wax, made in smal pills of the bignesse of millet corns, in some conuenient liquor, they will not suffer the milke to cruddle in the stomacke. If there be a rising or swelling in the thare, the present remedie is to sticke a plaister of white wax vpon the groine. Moreouer, to reckon vp and decipher the sundry vses that wax is put vnto in matters of Physicke, as it is mixed with other things, it is no more possible for a Physician, than to particularize of other simples and of their wholsom vertues, according as they enter into many compositions: which proceed all (as I haue said) from the wit and artificiall inuention of man: for wee neuer find, that Cerots, Cataplasms, Emollitiues, Plaisters, Collyries or Eye-salues, Antidotes or Preferuatiue confectiions, were euer of our great mother dame natures making: who indeed is the diuine worke mistresse of all things, these are the deuises of Apothecaries, nay they are rather tricks proceeding from auarice and couetousnesse. As for Nature, she hath made nothing vnperfect, her workes be absolute all and accomplished in their essence: ordained hath shee no compounds, vnlesse it be very few, wherein she proceedeth vpon good cause and reason, and goeth not by blind aime and doubtfull conjectures: as namely, when according to her rule and order, shee doth incorporate some things of a drie constitution and substance, with a liquor, that they may pierce & enter better within the pores of the body, or els when she giueth consistence to liquid matters by some bodily substance, which may white and knit them together. To goe about for to compassse the vertues of euery simple ingredient in these compositions curiously by scruples and graines, fauoureth of impudencie rather than a worke grounded vpon humane conjecture. For mine owne part, I haue nothing to doe with these drugs and far-fet wares that come from India and Arabia: I meddle not (I say) with these medicinable spices brought out (as it were) of another world. These simples growing so far off in such remote countries, please me not, neither do I thinke them meet for to cure our maladies: they were neuer brought forth by Nature for vs, no nor for them neither, where they grow: otherwise they were not such fools (I trow) as to sell and passe them away as they doe. Buy them, and spare not, for sweet pomanders, perfumes, and delicat ointments: ye may buy them also (if you please) vpon a superstitious deuotion for the worship of gods, for that now we cannot sacrifice, pray, & serue God (forsooth) without Frankincense and Costus. And that our daintie ones and effeminate persons should be the more ashamed of themselves, I will the rather shew and prouue, That we may both preserve and recouer our health well enough without these exotical and forraigne drugs: and that ech region is furnished sufficiently with home-physicke of their owne. But now, since we haue taken so much paines as to collekt the medicinable vertues of guirland-floures, of pot-hearbes also, harden-woorts, and sallad hearbes, How may I for very shame leaue out the properties of come and grain seruing for Physick? and therefore in this place it shall be well done, to discourse of them likewise.

CHAP. XXV.

¶ The medicinable vertues and properties of corne and graine.

First and formost this is holden for certain, that they be the most ingenious and wisest creatures of all others, which liue of corn. The grains of the fine blanchd wheat *Siligo*, being burnt, brought into pouder, and applied with Amminien wine in manner of a liniment, doe

restrain the flux of humors to the eies. Also the cornes of the ordinary wheat *Triticum*, being parched or roasted vpon a red hot yron, are a present remedie for those who are scorched and findged with nipping cold. The meale of the said wheat sodden in vinegre, and applied as a cataplasm, helpeth the contraction and shrinking vp of the sinews: but wheat brans, with oile of roses, drie figges, and sebesten sodden together, make a collution, the gargarizing wherewith, is good for the inflammation of the Tonfills or Amygdales, and to cure all the accidents of the throat. *Sextus Pompeius*, who in his daies was one of the principal peers of high Spain, & left a sonne behind him, who afterward was lord Pretour of Rome, sitting on a time before his barne: dores to see his corn winowed, was surprisid sodainly with a fit of the gout, and whether it were by chance, or in a rage for the extremitie of paine, thrust his legs about the knees into the heap of wheat lying thereby: but finding his legs mightily dried hereby, and himselfe wonderfully eased of his paine by that means, he neuer vsed any other remedie afterwards, but so soone as he felt a fit of his gout comming, he plunged his feet and legs into a heap of wheat. Certes wheat is such a desiccatiue, that it wil draw and drie vp the wine or any other liquor in a barrell which is buried within it. Moreover, the best experienced Chirurgians in the cure of ruptures, affirm, That there is nothing better, than to lay the chaffe of wheat or barley hot to the grieved place, and to foment the same with a decoction wherein it was sodden.

Vide Galen,
lib. de Natu-
ralibus facul-
tatibus.

As for the bearded wheat Far, there is a certaine worme breeding in it like to a moth or the grub that eateth wood, which is singular good to make rotten teeth to fall out of the head, for if the same be lapped within wax, and so put into the hole of the faultie tooth, it wil drop out: or if the sound teeth be but rubbed therewith, they will shed and fall forth of the head.

Touching the graine Olyra, we haue said already that it is called also Arinca. The Egyptians make thereof a certaine medicinable decoction or gruell, which they call Athara, passing good for young babes; yea and it serueth to bath and annoint elder folke withall.

Barly meale either raw or boiled, doth discusse and resolute, assuage & ripen, all impostumes engendred either by way of gathering and collection of humours, or by some deflux and rheumatick descent. The same otherwhiles is sodden in honied water, or els with dried figs: but for the paines of the liuer, it had need to be boiled with Oxycatre, i. water and vinegre together, or els with wine. But when the case standeth so, that the tumor must be partly dissipated, & partly brought to maturation, then it is better that it be incorporate in vinegre, or the lees of vinegre, or at least waies in sodden pearces or sodden quinces. Being tempered and medled with hony, it is very good for the biting of the cheelsips or many-foot worms, called Multipedes: but for the sting of serpents, it is better to mix it with vinegre, as also to keep sores from festering and rankling: but in case it be needful and requisit to cleanse them from suppurat matter therein gathered, then it would be applied with vinegre and water, with rosin also and gal-nuts added therto. For inueterat and old vlcers, to bring them to maturation, it is laid too with rosin: for to soften hard tumors, it is vsed either with pigeons dung, or with drie figs, or ashes. Being applied with Poppie or Melilot, it is singular for the inflammation of the nerues, of the guts & sides: also for the paines of mens priuie parts: or when the flesh is departed from the bone. Incorporate with pitch, and the vrine of a boy not yet vndergrowne nor fourteen years old, it is a proper medicine for the swelling kernels named the Kings euill: with oile and Fenigreeke, it helpeth the tumors of the midriffe and precordiall parts: or in case the feuer be busie with the Patient, then it must be vsed with honey or old greafe. But if those swellings tend to maturation, then wheat meale is commonly more lenitiue, and assuageth pain better. The same being reduced into a liniment with the iuice of Henbane, is good for the nerues; but with honey and vinegre, it taketh away the red pimples and spots appearing in the skin, called Lentils.

Spelt:

Touching * Zea, whereof is made the ordinary frumenty as I haue said: the meale of it is counted better in operation than the other of barley, but that of the three-moneth corn is more moist and emollatiue. Tempered with red wine, and so applied warm, it is commended for the pricke of Scorpions: also for them that reach and spit vp bloud: and all accidents happening to the throat and windpipes: but with goats suet or butter, it is good for the cough. The flour or meale of Fenigreeke, is the softest of al other: it healeth running vlcers, it skoureth dandruffe or scales in any part of the body, it appeaseth and assuageth the pains of the stomack, it cureth the maladies incident to the feet and paps, if it be sodden with sal-nitre and wine, and so applied accordingly.

The

A The meale of Yurain or Darnell, doth cleanse old vlcers and gangrenes more than any other: Tempered with raddish, salt, and vineger, it cureth ring-worms, tectars, shingles, and such like: with Sulphur-vif or quick brimstone, it scoureth away the leprosie. Applied in a frontall to the forehead with Goose-grease, it helpeth the head-ache. Boiled in wine with Pigeons dung and Line-feed, it digesteth and bringeth to maturation the swelling kernels named the Kings-euill, and other biles which be long ere they gather to an head and do ripen.

B Of the sundry sorts of Barly groats or grosse meale called Polenta, I haue said enough in my Treatise of corn, which did require also the discourse of such things as be made of corn. It differeth from Barly meale, in that it is torrifid, or parched: in which regard it doth the stomack good. It bindeth and staieth the flux of the belly: it represseth also and smiteth back the flushing of humors, to the breeding of red and angry tumors. It serueth for a liniment to the eies, and easeth head-ach, if it be applied with * Mints, or some other cooling herb. In like manner it cureth kided heels, and the wounds occasioned by serpents: also it healeth burnes and scalds if it be laid too with wine: and in that sort it keepeth them from blistering. If meale be driuen through a sercer or boulder, and so reduced to flour, and afterwards made with dough or paste, it is a great drawer of noi som humors to the outward parts: which is the cause that being applied to such places which look dead & mortified, by reason of the bloud spread vnder the skin, it draweth out the same, so that the very linnen bands wherwith they be lapped & rolled, become bloody again. But if wine couit be ioined therewith, the operation is more effectuall. Moreover, the said flour is good to be laid vnto the callosities and corns of the feet. For the fine flour of meale being sodden with old oile and pitch, and applied so hot as the patient may abide it, doth wonderfully cure the swelling piles and all other griefs about the fundament. As touching the thick gruell or paps made with flour, it nourisheth much, and causeth the body to feed wel: the past made of meale, wherewith they vse to glew Papyr, is ordinarily giuen warm to good effect, for the reaching and spitting of bloud.

C As for the frumenty called Alica, it is a meere Roman inuention, and not long ago first deuised: for otherwise the Greeks if they had known of it, would neuer haue written as they did in the commendation of husked Barly named Pritana, rather than of it. And I thinke verily, that the vse thereof was not taken vp in the daies of Pompey the great, and therefore the followers and disciples of *Alepiades* haue left little or nothing therof in writing. That it is a soueraign and most wholsom thing, no man verily maketh doubt or question, whether it be washed and so giuen in honied water, or whether it be sodden and so vsed in a thin supping, or boiled higher to the consistence of a thick gruel or pottage. The same for to stay the belly, and stop a lask, is torrifid: and then afterwards sodden with virgin wax, as before I haue shewed. But a peculiar vertue it hath by it selfe to restore those that are consumed and fallen away through a long & languishing sicknesse: and then it must be ordered thus, Take three cyaths of the said Frumenty, seeth it in a sextar of faire water ouer a soft fire gently, vntill by little and little all the water be consumed: now after this imbibition, when that the Frumenty hath thus drunk vp all the water, there must be added thereto a sextar of Ewes milk or Goats milk, and in the end a little hony. This the patient is to take for certain daies together. And in truth, such a broth or supping is this, as there is not in the world a more soueraigne restoratiue for all colliquations and consumptions whatsoeuer, nor that will sooner set vpon their feet again those who be far gone and spent that way.

E To come now to Millet, it is a grain, which being torrifid aforehand for the purpose, stoppeth the lask, and dispatcheth all collick pains and torments of the belly. Being fried and laied too hot in a bag, there is not a better thing for the grieve of the sinews, or to alay any other pain: for, most soft it is, and lightest of all other, and nothing in the world retaineth heat so well. No maruell then if Miller be vsed ordinarily in those cases, where heat is to do good. To conclude, the meale or powder thereof incorporate with tar, is a singular plaister to be laid vpon sores, occasioned by the sting of Serpents or the prick of the vermine named Multipeda.

F As for the Panick, *Diocles* the Physitian called it Mel-frugum. The same operations and effects it hath that Miller. Being taken in wine, it is good for the dysentery or bloody flux: to such tumors as need to euaporat and be resolved, it is singular good for to be applied hot, by way of fomentation. Sodden in Goats milk, and giuen twice a day to drink, it bindeth the belly, & staieth flux: and in that manner it assuageth the torments and wrings in the collicke.

Seſama

* cum identis
rather Melles
i. hony, according
to Columella: for
Mints becom

Sesama stamped or beaten into pouder, and so taken in wine, restraineth immoderat vomits. Reduced into a liniment, and so applied, it doth mitigat the inflammation of the ears, & cureth any burne or scalt place of the body. The same effects it hath when it is green & groweth in the field.ouer and besides, a cataplasme made thereof, being boiled in wine, is good for sore eyes. To be eaten, it is no wholsome meat for the stomach: and more than that, it causeth a stinking breath. Howbeit, they hold it excellent to withstand the venomous sting of the Stellions, and the dangers that it may inferre: as also to heale the old cancerous and maligne vlcers, named Cacoethe, & Morimals. There is an oile made thereof, which as I haue before shewed, is good for the eares.

Touching Sefamoeides, which taketh that name of the resemblance that it hath to Sefama, but that the graine thereof is bitter, and the lease lesse, and it groweth in grauelly grounds: the same being taken to drink in water, purgeth chollick humors. A liniment made of the seed, doth assuage the heat of *S. Anthomes* fire, and doth discusse and resolute biles. And yet there is another Sefamoeides growing in Anticyra, which thereupon some do call Anticyricon: otherwise much like it is to the herb Groundswell, whereof I will speake in place conuenient. The graine or seed of this Sefamoeides is giuen in sweet wine, as a purgatiue of chollick and flegmatick humors; to the quantity of as much as may be contained with three fingers: but to quicken the same, the Physitians vse to put one Obole and an halfe of the white Ellebore-root or Neesewort: which purgation they vse in case of madnesse, the melancholicke disease, the falling sicknesse, and the gout. By it selfe alone, the weight of one dram is a sufficient laxatiue, & doth euacuat the belly.

The best Barley is that which is whitest. The iuice of Barley boiled in rain water, is made vp into certain trofches, which is singular good to be either conueied into the guts by way of clyster, for the exulceration thereof; or els injected into the Matrice by the metrenchyte, for the vlcers therein. The ashes of Barly burnt, are good in a liniment for Burnes, for places where the flesh is gone from the bones, for wheales, and small pocks, and for the biting of the Hardishrew mouse. The same with a little sprinkling of salt, and some honey amongst, is counted a good dentifrice, to make the teeth look white, and the breath to smel sweet. There is an opinion commonly receiued, That whosoener vse to eat Barly bread, shall not be troubled with the gout of the feet. And they say, that if a man take nine barley corns, & with euery one of them draw three imaginary circles about a felon with his left hand: and when he hath so done, throw them all into the fire; presently it shall be cured. There is an herb which the Greeks call Phoenicea, and our countrymen in Latine Hordeum * Murinum. This herb or weed being beaten to pouder, & taken in wine, is singular to bring down the course of womens fleurs.

Hippocrates the famous Physitian, hath made one * intire book in the praise of Ptisana, which is a groat made of Barly: but all the vertues and properties thereof are now attributed vnto our Frumenty Alica, and that goeth away with all the commendation. * And yet a man may see how much more harmlesse it is than Alica. Hippocrates commended it only for a supping, as being slippery & easie to be taken, good to put away thirst, not swelling in the belly, passing quickly and easily through the body, and such a kinde of meat as might alone of all others be giuen twice a day in a feuer to those who were vied to it: so farre was hee in opinion from them who would famish all diseases, & cure them by * fasting & vtter hunger. Howbeit, he forbade to giue it whole in substance to be lipped off, & allowed nothing but the very simple iuice and broth of Ptisane or husked Barly: neither allowed he it in the beginning of an ague fit, so long as the feet continued cold, for during that time he would not admit so much as a thin potion therof. Now besides the Alica or frumenty made of Zea, there is another which commeth of the common wheat, more glutinous and better indeed for the exulceration of the wind pipes.

As touching Amylum or starch pouder, it dimmeth the eyesight, & is hurtful to the throat, and is nothing good to be eaten, contrary to the common receiued opinion. It staie the inordinat flux of the belly, representeth the rheum into the eies, it healeth vlcers, and cureth pushes, wheals, and blains, and restraineth fluxes of blood. It mollifieth the hardnesse growing in the eye-lids. To such as cast vp blood, it is vsually giuen in an egge. In pain of the bladder, halfe an ounce of Amylum made hot ouer the fire vntill it suer, with one egge and as much cuit as will go into three eg-shells, taken immediatly after the bath or hot house, is a singular remedy: moreover, oatmeale sodden in vineger, taketh away moles and freckles of the skin.

The

A The very ordinary bread, which is our daily food, hath an infinit number of medicinable faculties. Bread crums being applied with water and common oile, or els with oile of Roses, doth mollifie impostumes: & with honied water assuageth any hardnes, wonderfully. Giuen in wine, it is good to discusse and resolute. It is of force also to bind and knit where need is, and so much the rather, if it be giuen with vineger. Also it is singular against the sharp & eager flux of fleam, which the Greeks call Rheumes: likewise for bruised places vpon stripes or blows; yea, and for dislocations. And in very deed, for all these purposes, leauned bread, called of the Greeks Autopyros, & downright made, is better than any other. Moreover, a liniment thereof applied with vineger, is good for whiffaws and the callosities of the feet. Moreover, stale bread and bisket, such as sea-faring men do eat, being stamped & sod again, is good to bind the belly: for singing men and choristers who are desirous to haue a cleare voice, for such also as be subject to rheums falling from the head, it is the wholsomest thing in the world, to eat dry bread in the beginning of meals. The Sitanian bread, & that which is made of three months corn, being incorporat with hony, is a faire medicine to cure either the black prints remaining after strokes, or the scailing and pilling of the face. White bread crums foked either in hot or cold water, yeeld vnto sicke men a meat of light digestion. The same being applied with wine, cureth swelled eies. And so it healeth the breaking out in the head, especially if dry Myrtles be put thereto. It is an ordinary thing to prescribe vnto them that are giuen to shaking, for to eat fasting bread foked in water, presently after they come forth of the bath. The perfume of bread burnt, taketh away all other euill smells that may be in a bed chamber: & being put into those Hippocras bags through which wines be strained, it altereth the naughty tast which they haue.

Furthermore, euen Beanes haue their properties which serue in Physicke: for being fried all whole as they be, and so cast piping hot into sharp vineger, they help the collicke and pangs of the belly. Bruised and so eaten, or sodden with Garlick, they be excellent good against coughes that were thought past cure and remediless; yea, and impostumes in the breast grown to suppuration; but the patient ought to feed thereof continually euery day. Also if one chew them fasting, and so apply them to a felon, they are thought passing good either to ripen or to discusse the same. Boiled in wine, and so laid too, they assuage the swellings of the cods and priuy parts seruing to generation. Bean floure sodden in vineger, doth ripen and breake all tumors: in like manner it dissolueth black bruised blood lying vnder the skin, and healeth burns. *M. Varro* is of opinion, that it is good for the voice. Bean stalks and bean cods burnt to ashes, and so incorporat with old Swines seame, is good for the Sciatica and all inueterat pains of the sinews. The very husks of beans alone sodden to the thirds, do stop the last end running out of the belly.

The best Lentils be they that are most tender, and ask least seething: also such as drink much water. Lentils verily do dim the eie-sight, and breed ventosities in the stomacke: but taken in meat they stay the flux of the guts, and the rather if they be thoroughly sodden in rain water: but in case they be not fully boiled, they do open the belly and make the body laxatiue: the efcars or roofs remaining vpon cauterized or blistered sores, they break and make to fall off: & those vlcers which are within the mouth, they mundifie and cleanse. Applied outwardly, they appease the pains of all impostumes, especially if they be exulcerat and full of chaps: and reduced into a cataplasme with melilore or a quince, they are singular for to repress the flux of humors to the eyes: but for to keep impostumes and tumors from suppuration, they are laied too with Barley groats, or the grosse meale thereof torried. The iuice of Lentils after they be sodden, is good for the exulcerations of the mouth, and the genitors: likewise with an addition of oile Rosat or Quince, for the inflammation of the seat or fundament. But if the parts affected and exulcerat do require stronger and sharper remedies, the same would be applied with the rind of a pomgranat, and a little hony put thereto. And to the end that the said cataplasme shal not dry quickly, they vse to put thereto Beet leaues. Lentils sodden throughly in vineger, serue for a cataplasme to be laid vpon the swelling kernels called the Kings euill, and other fell biles, whether they be ripe or in the way only of maturation. Applied with honied water, they be very good for any clifts and chaps: but with the pill or rinde of a pomgranat, for Gangrenes. In like manner, with barley groats they be appropriat for the gout, the kidneys, the naturall parts of women, for kibes, and such vlcers as be hardly brought to cicatrice. Thirty grains of Lentils swallowed down by way of Bole, are singular for the feeblenesse and dissolution of the stomacke. In dysenteries or bloody fixes, in the violent rage of cholericke humors which cause euacuations both vpwad & downe-

* It groweth indeed commonly vpon new wals, although the name seemeth to come from *Murex*, i. Mice and Rats: rather than *Muri*, i. Wals. * This booke goeth now vnder this title, *De ratione viciis in morbis acutis*. * Contra, quam so innocentiore est Alica. * He glanceth at *Diatrynos*, i. fasting three daies together.

downward, Lentils do effectuall their operation much more, if they be sodden in three waters. G For which purpose also better it is to torrifie them first, and then to pound or beat them small. That they may be giuen to the patient as fine as may be, either by themselves alone, or els with a Quince, with Pears, Myrtle berries, wild Cichory, black Beets or Plantain. Howbeit, note thus much, That Lentils are nought for the Lungs, for head-ache, for all neruous parts, and the gall; and this ill property they haue besides, to keep the patient from sleep. Being sodden in sea-water, they are good for pufhes and angry wheales, for *S. Antonies* fire, and the accidents that befall womens breasts: but if they be boiled in vineger, they discusse all hard tumors, & the kings euil. They that haue but weak and bad stomacks, vse verily to put Lentils to thicken their porridge and gruels, instead of Barly groats, and find thereby much ease. If they be halfe sodden in water, afterwards braied or stamped, & then let passe through a tamise, that the brans might be separat from the rest, they are thought very good for burns: but then, within a while as the cure goeth forward, they must be applied with honey also put thereto. Finally, if they be sodden in Oxycrat or water and vineger together, they help the swelling bunch of the throat called Bronchocele. H

There is a kind of marish or moory Lentils [called Ducks meat] growing of it selfe in standing waters. This herb is by nature refrigeratiue: in which regard, it serueth to make a liniment vsed for inflammations and hot imposthumes: but principally for all manner of gouts, either alone or mingled with Barly groats. The same hath vertue to knit & consolidat ruptures, when the bowels are fallen downe.

Moreover, there be wild Lentils, called by the Greeks Elelispachos, by others, Phacos. These I be lighter than the tame Lentils which are sowed, bearing a smaller leafe, drier also, & more odoriferous than the other. Of which wild Lentils, there is a second sort, carying a strong smell: in somuch as the former kind is counted the milder. These Lentils haue leaues formed to the fashion of quince leaues, but that they be lesse and white, and commonly they are sodden branch and all together. Their medicinable vertues be, to bring down the monthly sicknesse of women, to prouoke vrines, and to heale the wounds occasioned by the venomous prick of the sea pusshin or fork-fish. Now the nature of this fish is to benum and mortifie the place which is stricken. Of these Lentils and Wormwood, there is a drink made, good for the dysentery, or bloody-flux. The same taken with wine, draweth down womens fleurs that stay vpon them: but if their bare decoction be drunk, it wil stay them when they flow immoderately. The herb alone applied outwardly, represseth the ouermuch bleeding of fresh wounds: it cureth the sores occasioned by the stinging of serpents. The decoction thereof in wine, doth mitigate the itching of the cods, if they be bathed and fomented therewith. K

Our moderne Herbarists in these daies, doe call that in Latine Saluia, (*i. e.*) Sange, which the Greeks name Elelispachos. An herb it is much resembling Mints, of a gray and hoary colour, and withall odoriferous. Being applied to the naturall parts of women, it fetcheth away the dead infant within the womb: it riddeth the ears also and festered vlcers of those wormes and vermin which breed therein.

Moreover, there is a kind of wild Cich-peafe bearing leaues like to the other of the garden, and which be sowed, haue that their smell is strong & vnpleasant. If a man feed largely of them, they stir the belly and moue to the siege, they breed ventosities, cause the collicke and wringing of the guts. Howbeit, if they be parched or torrifed they are reputed the wholsomer.

The Cichling or pety Cich-peafe, is thought to be better and more wholsome to the belly than the other: but the meale as well of the one as the other, doth heale the running sores & scales of the head: howbeit, the wild better than the rest. Moreover, these ciches are taken to be good for the falling sicknesse, the swellings of the liuer, and the sting of Serpents. They procure womens termes, and prouoke vrine, and especially the grain it selfe rather than the leafe. The same are singular for tetter and ring-worms, for inflammations of the cods, for the jaundise & drop-sie. But all the sort of them be hurtfull to the bladder and kidnies, especially if they be exulcerat. For gangrenes and those morimall vlcers called Cacoethe, they be better, in case they be tempered with honey. Some there be, who for to be ridde of all kinde of Warts, take as many Cich-peafe as there be warts, and with euery one of them touch a wart, and that, vpon the first day after the change of the Moon: which done, they tie the foresaid Peafe or Ciches in a little linnen rag, and fling them away backward behind them: and they are persuaded that the warts will

A will be gone by this means. But our Latine Physitians are of opinion, That the blacke ciches which be called Ram-ciches, should be well and thoroughly sodden in water and salt: of which decoction they prescribe vnto the patient for to drinke two cyaths, in difficulty of making water, for to expell the stone, and rid away the jaundise. Their leaues and stalks of straw being sodden in water ouer a good fire, yeeld a decoction, which beeing vsed as hot as may be suffered, doth mollifie the callosities & hardnesse growing about the feet: so doth a liniment also made of the very substance it selfe, stamped and applied hot.

The Columbine ciches sodden in water, are thought to lessen and shorten the shaking fits in tertian and quartan agues. The black cich-peafe being beaten to powder with halfe the quantity of gall-nuts, and incorporat with sweet wine cuit, called Passum, and so applied, cureth the B vlcers of the eyes.

As touching Eruille, somewhat I haue said already touching the properties thereof, when I made mention of it among other kinds of pulse. And indeed the old writers haue attributed as great power & vertue vnto it as to the Colewort. Being laid to with vineger, it cureth the hurts that come by the sting of serpents, or the teeth of man & crocodile. There be writers of approved authority, who affirm for certain, That if a man doe eat Eruille fasting euery day, it will diminish and wast the swelling of the spleen. The meale of Eruille (as *Varro* reporteth) taketh away the spots and moles of any part of the body. And in truth, this pulse is singular to repress corrosiue and eating vlcers: but aboue all, it is most effectuall in the sores of womens breasts: applied with wine, it breaketh carbuncles. Being torrifed and incorporat with hony, and reduced into an electuarie or bole, and so taken as much as an hazell nut, it amendeth the suppression or difficulty of voiding vrine, dissolueth ventosities, openeth obstructions, and helpeth other accidents of the liuer, the prouocations and proffers to the stoole without doing any thing: requieth those parts that mislike and feele no benefit or nutriment of meat, which they call in Greek Atrophia. In like manner it cureth shingles, ring-worms, and tetter, if it be first sodden in vineger so applied, and not removed vntil the fourth day. If it be laid too with hony, it keepeth biles from suppuration. A fomentation made with the decoction thereof in water, helps kided heels, & the itch. And it is generally thought, That if a man drink it euery day next his heart vpon an empty stomack, it will make the whole body looke with a better and more liuely colour. Contrariwise, the common opinion is, That it is not good to be eaten ordinarily as meat, for it moueth to vomit, troubleth the belly, lieth heavy vpon the stomack, and fumeth vp into the head: it breedeth ache and heauinesse in the knees. But if it haue lien many daies in steepe, after that imbibition of water, it becommeth more mild, and is a most wholsom prouender for horse and oxen. The green cods of Eruille before they waxe hard, if they be stamped with their stalkes and leaues together, do colour and die the hairs of the head * blacke.

As touching wild Lupines, they be inferior to those which come of seed, in all respects, but only in biternesse. And verily there is not a thing more commendable, wholsome, and light of digestion than white Lupines, if they be eaten dry. They are brought to be sweet and pleasant by hot ashes or scalding water. Being eaten at meales vsually, they make a fresh colour and chearfull countenance. Bitter Lupines are very good against the sting of the Aspidess. Dry Lupins husked & clenfed from their skins & applied to black & mortified vlcers, full of dead flesh, with a linnen cloth between, reduce them to a liuely colour, and to quick flesh again. The same sodden in vineger, discusse the kings euill, and the swelling kernels & impostumations behind the ears. The broth or collature of them being sodden with Rue and Pepper, may be giuen safely, although it were in an ague, to those that bee vnder thirty yeares of age, for to expell the wormes in the belly. As for young children who haue the wormes, it is good to lay Lupines to their bellie whiles they be fasting. All others are to take them torrifed, either by way of drink in a kind of wine cuit, or els in electuary after the maner of a lioch. The same do giue an edge to the stomack, and quicken the appetite to meat. The meale or powder of Lupines wrought with vineger into a dough or paste, and so reduced into a liniment, and vsed in a bain or stouue, represseth and keepeth down all wheales and itching pimples which are ready to breake forth: and of it selfe is sufficient to drie vp vlcers. It bringeth to the native and liuely colour al places blacke and blew with stripes. Medled with Barly groats, it assuageth all inflammations. For the weaknesse of the huckle bone, the haunch, and loins, the wilde Lupines are counted more effectuall than the other. A fomentation with the decoction of these wild Lupins, maketh the skin more

* For that colour in old time was best esteemed, and thereby chaste Matrons were knowne from wanton harlots, who affected yellow haire: *Alex. ab Alex. 6. 18. 7. 5.*

more smooth and beautiful, taking away all spots and freckles. But if the same or garden Lupines be boiled to the height and consistence of hony, they do cleanse the skin from black morpew and the leprosie. These also if they be applied as a cataplasme, do break carbuncles, bring down, or els ripen the swelling kernels named the kings euil, and other biles and botches, which of their nature be long ere they gather to head. Boiled in vineger, they reduce places cicatrized, to their naturall colour, and make them look faire & white again. But if they be throughly foddren in rain water, of the collature that passeth from them, there is made an abstersiue and scouring lie in manner of sope, most excellent for to foment gangrenes, small pocks, & running vlcers. A drink made thereof, is singular for the spleene; and if hony be put thereto, it prouokes womens fleurs, which make no halt downward. Take raw Lupines, stamp them with drie figges and vineger into a cataplasme, and apply them to the spleen, it is an excellent remedy. The root also foddren in water, prouoketh vrine forcibly. Lupines boiled in water with the herb Chamæleon, do cure the diseases incident to sheep and other such smal cattell, if they do but thinke of this decoction. Let them be foddren in the mother or lees of wine, or mingle both their decoctions therewith: they do heale the farins, scab, and mange of all other foure-footed beasts what soeuer. The fume of them as they burne, killeth gnats.

Concerning Irio, I said before in the treatise of corne and pulse, that it was like Sefama, and named by the Greeks Erysimon, whereas the Gaules do call it Velarum. This plant brancheth very much, and beareth leaues like to Rocquet, but that they be somewhat narrower, and brings forth seed resembling that of Cresses. This Irio taken with hony in form of a lochoch, is excellent good for the cough, and those who reach out filthy matter from their chest. Giuen it is for the jaundise, the diseases of the loins, for the pleurisie, the torments and wrings of the collicke, and the fluxes occasioned by the debility and weaknesse of the stomacke. Applied in form of a liniment, it is singular good for the inflammations behind the ears, for the cancerous vlcers also, and the symptoms thereto belonging. Laid to the cods with water, and otherwhiles with hony, it altereth their distemperature of heat, and the inflammations whereto they are subject. And soueraigne it is for infants. Likewise a cataplasme made of it, with figs and hony, is singular for the accidents and griefes of the fundament, as also for the gout and pains of the joints. Taken in drink, it is an effectuell counterpoison. It cureth those who are short winded. Applied outwardly with old hogs-grease, it helpeth fistulous sores, so there be care had that none of it go into the vlcers.

As for the graine Horminum, it hath a seed resembling Cumin, as I haue said before: otherwhise it is like to * Porret: and groweth to the height of a span or nine inches. Two kindes there be of it: wherof the one hath a blacker seed than the other, and somewhat long. * This hath power to prouoke lust, and is much vsed for the pin and web, for the perle also in the eye: the other hath a whiter seed and rounder. Both the one and the other if they be stamped, draw forth pricks and thornes out of the body, if a liniment be made of them alone, and applied with water. But a cataplasme of the leaues with vineger, or alone by themselves, or else with honey, disperse and resolute biles without suppuration. In like manner they dispatch fellons, if they be taken before they grow to any head, and generally all tumors proceeding from sharp and hot humors. And thus much of grain.

A strange thing that Nature hath so ordained, That the very pestilent weeds which plague corne, should haue their vse in Physicke. For first and formost there is Darnel, which albeit Virgil termeth Infelix, & vnhappy, yet if it be ground and foddren in vineger, and so applied, it cureth tertars and dry scabs joined with a great itch: and the sooner doth it the deed, the oftner it is removed and changed. Darnell floure laid too, with Oxymell, cureth the gout & other pains. And to say a truth, the manner of this cure differeth from the rest. For the preparing of which medicine, the said floure must be ordered in this manner, & after this proportion: for euery sextar of vineger, it sufficeth to dissolue therein two ounces of hony; take then three sextars of this mixtion, and put thereto two sextars of Darnell meale, foddren to a thicke consistence: which done, temper all together, and apply this cataplasme to the grieved and pained members. The same meale draweth forth spils of broken and shiuered bones.

A weed there is, called Miliaria, for that it killeth the grain Millet. Beat this to pouder, and mingle it with wine, then poure this drench with an horne downe the throat of laboring jades: they say it will cure their gouts.

As

As for Bromos [i. wild Otes] which the Greeks take for the seed of a certain spiked or eared weed, counted it is for one of the imperfections growing among corne, and may be ranged with the kinds of Otes: for blade and stalk, it commeth neere to wheat; it beareth in the haw or head certain grains hanging down, which resemble small locusts; the seed is good to be vsed in those cataplasms, into which barley and such like do enter; the iuice or liquor made of it, is singular for the cough. A weed there is which we named Orobanche, for that it choketh Eruille and other pulse: some call it Cynomorion, for the resemblance that it hath to the cullions and pizle or genitall member of a dog. It riseth vp in a small stem without any leaues or blade: fatty it is and red: sometimes it is eaten alone, otherwhiles it is serued vp tender foddren, between two dishes, with other viands. Moreouer, there do ingender in pulse, certain little venomous vermins, who will prick and sting their hands who are imploied in the plucking, yea and put them in danger of their life: a kind they are of these Solifugæ or Solpugæ. The remedies for all these, be the same which are set downe against Spiders, and Phalangia.

Thus much as touching all kinds of graine, as far forth as they concerne Physick. But this moreouer is to be noted, that of corn there be certain drinks made; as namely, Zythus in Egypt; Coelia and Ceria in Spaine; Ale and Beere and many more sorts, in Gaule and other prouinces. Now the froth or barme that riseth from these Ales or Beers, haue a property to keepe the skin faire and cleare in womens faces. But for the operation that Ale and Beere hath in them who drink thereof, I mean to passe them ouer here; for I thinke it better to proceed to the treatise of wine: but first I will discipher the medicinable vertues of trees, and begin with the vine



THE TWENTY THIRD BOOKE OF THE HISTORIE OF NATURE,

WRITTEN BY C. PLINIUS
SECVNDVS.

The Proeme.

Thus far forth haue we gone ouer the upper face of the earth, and shewed what medicinable vertues there be in all kinds of graine, as well corne as pulse: as also what Physicke may be found in woorts and pot-herbs: yea and in those garden plants, which by reason of their faire floures and sweet odours, serue mans turne for garlands and chaplets. It remaineth now to speak of lady Pomona and her gifts, who certes commeth not behind dame Ceres with all her riches. And verily this Nymph and goddesse Pomona, not content thus to protect, maintaine, and nourish vnder the shade of her trees, those fruits of the earth aboue named; but displeased rather and taking scorne, that such plants which grow farther from the Cope of Heauen, and began long after trees to come vp and shew themselves, should seeme to haue so many vertues: hath likewise furnished the fruits hanging vpon her trees, with their properties, and those of no small operation and effect in Physicke. And in truth, if we consider and weigh the cause aright, she it was that afforded to mankind the first food from those her trees, inducing vs thereby to lift up our eyes and looke to Heauen-ward: yea and she giueth the world to vnderstand, that if Ceres and Flora both should faile, she with her goods only were able euen still to sustaine and feed vs sufficiently. And to beginne with the Vine, which ought by right to be ranged in the highest ranke of all those plants that beare the name of Trees: This bountifull Ladie not satisfied herein, that shee had done pleasure vnto man in furnishing him with noble perfumes, odours, and delicate Ointments, by meanes of the grape ver-
juice,

The Earth.

juice, the Vine-floure Oenanthe, and namely the wilde Vine Massaris in Affricke (according as I haue G
discourfed more at large heretofore) hath therefore bestowed vpon Vines those medicinable vertues in
greatest measure, and withall vsed these remonstrances vnto men in this manner: Call to minde (quoth
shee) how many benefits and pleasures thou receivest at my hands; Who is it but I, that haue brought forth
Wine, that sweet juice of the Grape? Who but I, haue giuen thee Oyle, that daintie liquor of the Olive?
From mee, come Dates and Apples: from mee thou hast all Fruits of such varietie, that impossible it
is to number them. Neither doe I deal by thee as dame * Tellus doth, who bestoweth nothing vpon
thee without labour and sweat of thy browes; nothing (I say) but before it doth thee any good, requirerth
tillage by Oxe and Plough, thrashing with flail vpon the floure, or trampling of beasts feet vpon the mow,
and then the Mill-stones to grinde it: Such adoe there is, and so long a time first, before thou canst enioy
the benefit thereof for thy food. But contrariwise, whatsoeuer cometh from mee, is ready at hand; there H
needes no intreating of the Plough, nor any great labour and industrie to haue and inioy my fruits; for they
offer themselves of their owne accord: yea, and if thou thinke much of thy paines to climbe, or to put vpon thy
hand and gather them, loe they are readie to droppe downe and fall into thy mouth, or else to lie vnder thy
feet. See how good and gracious Nature hath bene vnto vs herein, and how shee hath strouen with her
selfe, Whether she should profit, or pleasure man more! & yet I take it, that she affected Commoditie rather
than Delight.

For to come vnto the vertues and properties of the wine, The very leaues and tender burgeons thereof,
applied with barley groats, do mitigate the paine of the head, and reduce all inflammations of the bodie vnto
the due temperature. The leaues alone of the vine, laid vnto the stomack with cold water, allay the vn-
kinde heats thereof: and with barley meale, are singular for all gout and diseases of the ioints. The ten- I
drils or young branches of the vine being stamped and applied accordingly, drie vpon any tumors or swellings
whatsoeuer. Their iuice injected or poured into the guts by a clystire, cureth the bloody flux. The liquor
concreat (which is in manner of a gumme issuing from the vine) healeth the leproie and all foule tetters,
scabs and manges, in case the parts affected were prepared and rubbed before with salniter. The same liquor
or gumme is likewise depilatorie: for if the haire be often annointed with it and oyle together, they will fall
off: but the water especially that sweateth out of greene vine branches as they burne, hath a mightie opera-
tion that way, in so much, as it will fetch off Warts also. The drinke wherein young vine tendrils haue lien
infused, is good for those who reach vpon and spit blood; as also for women who being newly conceived and
breeding childe, haue many swawmes come ouer their heart, and be eysoones subiect to faintings. The
vine barke or rinde, likewise the dried leaues slanch the bleeding in a wound, yea and doe consolidate and
heale vpon the wound it selfe. The iuice drawne out of the white vine being stamped greene, and Frankin-
cense together, take away shingles, ring-wormes, and such like wilde fires, if it be applied thereto. The
ashes of the vine-stocks, vine-cuttings, and of the kernels and skinnies of grapes after they be pressed, appli-
ed with vinegar vnto the seat or fundament, cure the piles, swellings, fissures, chappes, and other infirmities
incident to that part: but incorporate with oile-Rosat, Rue, and vinegar, they helpe dislocations, burnes, and
swellings of the spleene. The same ashes strewed with some asperson or sprinkling of wine, vpon S. Antho-
nies fire, without any oyle, doe cure the same: as also all frets and galls betwene the legges, and besides eat
away the haire of any place. The ashes of vine-cuttings, besprinkled with vinegar, are giuen to drinke for
the diseases of the spleene; so as the Patient take two cyaths thereof in warme water, and when hee hath
drunke it, lie vpon the spleene side. The very small tendrils of the vine whereby it climbeth, catcheth, and
claspeth about any thing being punned and taken in water, staith and represseth vomiting in those, whose
stomacks use ordinarily to be kicklish and soone to ouerturne. The ashes of wines tempered with old hogges
grease, is singular to abate swellings, to cleanse fistulous vlcers first, and soone after to heale them vpon cleane:
likewise for the paine of sinewes proceeding of cold, and for contraction and shrinking of the nerues: also for
bruises, being applied with oyle. Moreover, they eat away all excrescence of proud flesh about the bones, bee-
ing tempered with vinegar and niter: and last of all, mixed with oile, they heale the wounds made by scor-
pions or dogs. The ashes of the vine-barke alone, cause the haire to come againe in a burnt place.

How grape veruice should be made, when the grapes are young and nothing ripe, I haue shewed in the
Treatise of Perfumes and Ointments. It remaineth now to discourse of the medicinable vertues thereof:
and first to begin withall, It healeth all vlcers that happen in moist parts, and namely those of the
mouth, Tonsils or Almond-kernels on either side of the throat, and of the priuie members: the same is M
soveraigne for to clarifie the eie-sight: it cureth the asperitie and roughnesse of the eie-lids, the fistulous
vlcers in the corners of the eies, the clowdes or filmes that shadow and couer the sight, the running sores
in

A in any part of the body whatsoeuer: the corrupt and withered cicatrices or scars, and the bones charged with
purulent and skinny matter. Now if this veruice be too tart and eager, it may be delaid with honey or
wine-cuit: and so it is good for bloody fluxes, and the exulceration of the guts, for those who reiect and reach
vpon blood, and for the Squinane.

Next after the wine veruice Omphacium, I cannot chuse but write of Oenanthe, which is the floure that
wild vines do beare, whereof I haue already made mention in my discourse of ointments. The best Oenan-
the is that of Syria, especially along the coasts and mountaines of Antiochia and Laodicea. That which
groweth vpon the white vine, is refrigeratiue and astringent: being powdered and strewed vpon wounds,
it doth very much good: applied as a liniment to the stomack, it is exceeding comfortable. A proper me-
dicine it is for the suppression of urine, the infirmities and diseases of the liuer, the head-ache, the bloudie
B flux, the imbecility of the stomack, and the loosenesse proceeding from it: also for the violent motion of cho-
lerick humours proceeding upward and downward. The weight of one obolus thereof taken with vinegar,
helpeth the loathing that the stomacke hath to meat, and procureth appetite. It drieth vpon the running scales
breaking out in the head: and most effectually it is to heale all vlcers in moist parts, and therefore cureth
sores in the mouth, priuie members, and the seat or fundament. Taken with hony and saffron, it knitteth the
belly. The scurfie and roughnesse of the eie-lids it doth dense and make them smooth: it represseth rheume
in waterie eies. Giuen in wine to drinke, it comforteth and confirmeth feeble stomacks; but in cold water, it
staies the casting and reaching vpon of blood. The ashes thereof is much commended in collyries & eie-falues,
also for to mundifie filthy and vlcerous sores, to heale likewise whitflawes rising at the naile roots, and either
C the going away of the flesh from them, or the excrescence thereof remaining about them. For to bring it
into ashes, it must be torried in an Ouen, and so continue untill the bread be baked and readie for to be
drawne.

As for Massaris, or the Oenanthe in Affricke, it is imploied onely about sweet odours and pomanders:
and both it, as also other floures, men haue brought into so great name, by making haste to gather them be-
fore they could knit to any fruit: so inuencitue is mans wit, and so greedy to hunt after novelties and strange
deuises.

CHAP. I.

D ¶ The medicines which grapes fresh and new gathered do yeeld. Of Vine branches and cuttings:
of grape kernels, and the cake remaining after the presse. Of the grape Theriace. Of
dried grapes or Raisins. Of Astaphis: of Staphis-acre, otherwise called Pitui-
taria. Of the wild vine Labrusca: of the wild vine both white
and blacke. Of Musts or new wines. Of sundry kinds
of Wine, and of Vineger.



E ¶ Grapes that grow to their ripenesse and maturitie, the blacke are more
vehement in their operation than the white: and therefore the wine made
of them is nothing so pleasant: for in very truth the white grapes be swee-
ter far, by reason they are more transparent and cleare, and therefore re-
ceiue the aire into them more easily. Grapes new gathered do puffe vpon
the stomacke and fill it with winde; they trouble also the belly, which is
the cause that men are forbidden to eat them in feuers, especially in great
quantity; for they breed heauinesse in the head, and induce the Patient to
leepe ouermuch, vntill hee grow into a lethargie. Lesse harme doe those grapes, which after
they be gathered hang a long time: by which means they take the impression of wind and aire,
and so become wholsome to the stomacke and to any sicke person; for they doe gently coole
and bring the Patient to a stomacke againe. Such grapes as haue bin condite and preferred in
some sweet wine, are offensive to the head and fume vpon into the brains. Next in request to those
aboutsaid, which haue hanged a long time, be such as haue bin kept in chaffe: for as many as
F haue lien among wine-marc, or the refuse of kernels & skins remaining after the presse, are hurt-
full to the head, the bladder and the stomacke: howbeit they doe stop a laske, and nothing is
there better in the world for those that doe cast and reach vpon blood: and yet those grapes that
haue bin kept in must or new wine, are much worse than such as haue lien in the marc afore said.

Moreover, wine cuit, if they haue come into it, maketh them hurtfull and offensiue to the stomack. But if they must needs be preferued in some liquor, the Physitians hold them most whole some which haue bin kept in rain water, although they be least toothsome: for they do the stomack a great pleasure in the hot distemperature thereof; they be comfortable when the mouth is bitter, by occasion of the regurgitation of choler from the liuer and the burse of the gal; they giue great contentment also in bitter vomits; in the violent and inordinat motion of cholerick humors raging vpperward and downward; as also in case of dropsie, & to those that lie sick of burning feuers. As touching grapes preferued in earthen pots, they refresh and season the mouth which was out of tast: they open the stomack, and stir vp the appetite to meat: howbeit this in- conuenience they bring with them, That they are thought to lie more heauy in the stomacke, by reason of the breath and vapor which exaleth from their kernels. If hens, capons, cocks, and such like pullen, be serued among their meat with the floures of grapes, so as they once tast and eat thereof, they wil not afterwards peck or touch any grapes hanging by clusters vpon the vine.

The naked branches and bunches wherupon there were grapes, haue an astringent vertue; and indeed more effectual that way be such as come out of the pots abovesaid. The kernels or stone within the grapes, haue the same operation: and in very truth, these be they and nothing els, whereby wine causeth head-ach. Being torried & beaten to powder, and so taken, they be good for the stomack. Their powder is vsually put into the por in manner of barley groats for to thicken broth and supping, which are ordained for them who haue the bloody flux, who are troubled with a continual looseness following them by occasion of the imbecillity of the stomack; and for such as are ready to keck and heave at euery little thing. Their decoction serueth very wel, to foment those parts which are broken out and giuen to bleach and itch. The stones themselves are lesse hurtful to the head or bladder, than the little kernels within. The same being driuen into powder, and applied with salt, are good for inflammations of womens breasts: the decoction thereof, whether it be taken inwardly, or vsed by way of fomentation, helpeth as well those who haue gone a long time with a dysentery, or bloody flux, as them who through imbecillity of stomack, do scoure and purge downward continually.

The grape Theriace, whereof we haue written in due place, is good to be taken as a counterpoison against the sting of serpents: & it is a common received opinion, that the burgeons and branches of that vine, should likewise be taken inwardly as meat, & applied outwardly for the same purpose: as also that both wine and vinegar which is made of them, is of singular operation to the same effect.

The dried grape or raisin, which they call *Astaphis*, would trouble the stomack, belly, and in- trails, but for the kernels that are within the stones, which serue as a remedy to preuent and cure those inconueniences; which being taken forth, raisins be thought good for the bladder: but particularly for the cough, those of the white grapes be the better. Soueraigne are they also for the wind-pipe and the reins: like as the sweet cuit which is made thereof hath a speciall power and vertue against the Hemorrhoids alone, of all other serpents. A cataplasme made of them, together with the powder of Cumin or Coriander seed, applied to the cods, cureth their inflam- mation. Likewise, if they be stamped without their stones or kernels, together with Rue, they are singular good for carbuncles and gouts: but before this cataplasme be laid to any vlcers, they ought before hand to be bathed and fomented with wine. Applied with their stones, they heale chilblanes and bloody falls, yea and ease the paines and wrings which accompany the bloody flux. Of them boiled in oile, there is a liniment made, which being applied with the outward rind of a radish root and hony, helpeth gangrenes: but if there be Panace or Loue-ach added thereto, the liniment cureth the gout, and confirmeth nails which be loose. Being chewed alone with some pepper, they purge the head and the mouth.

Astaphis agria, or *Staphis*, which some (though vntruly) call *Vva Taminia* (for this is a feue- rall kind by it selfe, growing vp with straight black stalks, and carying leaues like to the wilde vine *Labrusca*) beareth bladders or little cods more like than grapes, of a green color, & resem- bling cich-peafe, within which is to be seen a three-cornered kernel: it waxeth ripe and begin- neth to change colour and looke black, at vintage time: whereas we know that the grapes of the *Taminian* vine be red: also we are assured, that *Staphis-acre* loueth to grow in Sun-shine pla- ces, but the *Taminian* grape nowhere but in the shade. The said kernels I would not aduise to be vsed for a purgation, considering the doubtfull euent and danger that may insue of choking and

A and strangulation: neither for to draw downe fleame and waterish humors into the mouth, for surely they be enemies to the throat and weasin pipe. The same, if they be done into powder, rid lice out of the head & al parts of the body besides: which they do the better & with more ease, in case there be *Sadaracha* or *Orpiment* among. In like manner, they kill the itch and the scabs. For the tooth-ache, they vse to be sodden in vineger; for the diseases also of the ears, for rheums and eating cankers of the mouth. The floure beaten into powder and so taken in wine, is singu- lar for the biting and sting of serpents: for I would not giue counsell to vse the seed, so exceed- ing hot it is and of so fiery a nature. Some call this herb *Pituitaria*, and apply it as a liniment to the sores occasioned by the biting of serpents.

As for the wild vine *Labrusca*, it carieth also a floure named in Greeke *Oenanthe*, whereof I haue written enough before. The wild vine which the Greeks name *Ampelos Agria*, hath thick leaues, and those inclining to a white colour: the stalkes or branches be diuided by ioints and knots, & the bark or rind is all ouer ful of chinks & creuices: it beareth certain red grapes much like vnto the berries wherewith they colour scarlet; which being stamped with the leaues of the same plant, and applied with juice of the own, are good to cleanse and beautifie the skin in wo- mens faces; and besides, do help the accidents and griefs that may befall to the haunch, huckle- bone, and the loins. The root boiled in water, and so taken in two cyaths of the * wine of the I- land *Coos*, doth euacuat watery humors gathered in the belly, and by consequence is thought to be an excellent drink for them who are in a dropsie. And this is the plant, which in my iudge- ment should be that vine which commonly is called in Latine *Vva Taminia*, rather than any other. Vsed much it is for a counter-charme against all theftcrafts: and giuen it is to gargarise only with salt, thyme, and honied vineger or oxymell, to them that spit and cast vp blood, with this caveat, To let none of it go down the throat: and therefore men feare to purge therewith, so dangerous it is thought to be. Another plant there is much like to this, called in Latine *Salica- strum*, for that it groweth in willow rews: and albeit these two carry diuers and distinct names, yet they be of the same nature and property, and be vsed to the like purposes. Howbeit this *Salicastrum* is taken to be more effectual of the twain for to kill the scab, scurfe, and itch, as well in men as in four-footed beasts, if it be bruised and applied with honied vineger.

There is a certain wild white vine, which the Greeks call * *Ampeloleuce*, some *Ophiosta- phylon*, others *Melothron* or *Pilothrum*; some *Archeostis* or *Cedrostis*, others *Madon*. This plant putteth forth long and slender twigs, parted and diuided by certaine joints or knots, and these climb vp and clasp whatsoeuer they meet withall. The leaues grow thick and full of ten- drils or yong burgeons, as big as Ivy leaues, diuided & jagged in maner of other vine leaues: the root is like & big, like at the first to a radish, from which there spring certain shoots or fions resembling the buds of *A sparagus*: these yong sprouts sodden & eaten with meat, purge both by siege and vrine: the leaues and branches be exulceratiue, and wil raise blisters vpon the body; and therefore applied with salt as a liniment, they be good for corrosiue vlcers, gangrenes, wolues, and the old mori-mall sores in the legs. The seed or graine thereof is contained within certaine berries hanging down thin here and there in small clusters, which yeeld a certain red juice or li- quor at the first, but afterwards it turneth to a yellow safron colour: this know the curriers well who dresse skins, for they vse it much. There is an ordinary liniment made therewith, for scabs, mange, and leprosie. The seed being boiled with wheat, and so taken in drink, causeth nurces to haue good store of milk. The root of this wild vine is very soueraigne, and serueth in right good stead for a number of purposes: first if it be powdered to the weight of two drams and giuen in drink, it is singular against the sting of serpents: it is excellent to scoure the skin of the face, to take away all spots and speckles, flecks and freckles, in any part of the body; the black and blew tokens of stripes, by reason of bruised blood lying vnder the skin; foul & vnseemly swert skars; it reduceth to the fresh & natural colour: these operations it hath, being boiled in oile: the deco- ction also is vsually giuen in drink to those who be subiect to the falling euill: likewise to such as be troubled in mind & beside themselves: to as many as are giuen to dizzines & giddines of the brain, and do ween that euery thing turnes round; but they must take the poise of one dram euery day throughout the yeare. The same root if it be taken in any great quantity, * purgeth the fenecs. But the principall and most excellent vertue that it hath, is this, That if it be flam- ped with water, and so applied, it draweth forth spels of broken and shiuered bones as well and effectually as the verie true *Bryonic*, which is the cause that some doe call it *White Bryonic*: for

* Much like to our Maluafey.

* Sometime it is for Bryonic.

* Purgat, rather than out of the fenecs, it draweth forth the braines.

for there is another which is black, and of greater efficacy to the same purpose, if it be applied with hony & Frankincense. It is very good to resolute impostumes and biles which are in growing, and not yet come to suppuration; but if they haue continued and gather to an head, it bringeth them to maturation, and afterwards clenseth them. It bringeth downe womens monthly sickness, and prouoketh vrine. An electuary or lochoch made therof, to lick, and suffered gently to melt vnder the tongue and go downe leisurely, is singular good for such as be short-winded, and labour for breath: also for pleurisies or pains of the side, for convulsions and inward vapours. If one drink the weight of three oboli 30 daies together, it will wast and consume the swelled spleene. The same serueth in a liniment to be applied with figs to the excrescences or risings of the flesh ouer the naile, called Pterygia. Being laid too as a cataplasim with wine it fetcheth away the after-birth in women: and taken to the weight of a dram, in honied water, it purgeth flegmatick humors. The juice of the root must be drawne before the fruit or seed be ripe: this juice either alone, or incorporat with Erule meale, if the body be annointed therewith doth illustrat the colour, make the skin soft and tender; and in one word it is such an embelishment, that it maketh any person better for the face: [* where by the way note, that it chafeth serpents away.] Moreouer, the very substance of the root, if it be stamped with fat figs, doth lay the riuels and wrinkles of the skin plain and euene, if it be rubbed or annointed therewith: but then the party must walk immediately vpon it, a good quarter of a mile; for otherwise it will fret and burne the skin, vnlesse presently it be washed off with cold water. Howbeit the black wild vine doth this feat more gently and with greater ease, for surely the white setteth an itch vpon the skin. There is therefore a black wild vine, which properly they call Bryonia, some Chironia, others Cynecanthe or Apronia, like in all respects to the former, but only in the colour [of the root grape or berry] for it is black, as I haue before said. The tender sprouts & sions that spring from the root, *Dioctes* preferred to be eaten in a sallad or otherwise, before the very crops and tender shoors of the true garden Sperage; and indeed they prouoke vrine and diminish the spleen far better: it groweth commonly in hedges among bushes and shrubs, and most of all in reed-plots. The root without-forth is blacke, but within of a pale yellow box colour; and this is of much more efficacy to draw out broken bones than the aboue-named white Bryonia. Moreouer, this peculiar property it hath besides, To cure the farcines or sores in horse necks and for this, it is thought to be the only thing in the world. Said commonly it is, that if a man do set an hedge or hay thereof round about a grange or ferm house in the country, there will no kites nor hawks, nor any such rauening birds of prey, come neere; so as the pullen and other fowl kept about the said ferme, shall be secure from their claws or tallons. If it be tied about the ankles of a man, or the pasterns of laboring horses, vnto which there is a fall either of Phlegmatick humors, or of a bloud, causing the gout in the one and the pains in the other, it cureth the same. Thus much concerning the sundrie sorts of Vines, and their properties respectiue to Physicke.

As touching Musts or new wines, the first and principall difference of them lieth in this, that some by nature are white, others blacke, and others again of a mixt colour between them both. Secondly, some Musts there be, whereof wine is made; and others, which serue only for cuit: but if we regard the artificiall deuises and the carefull industry of man about them, there be an infinite number of musts all distinct and different one from the other. Thus much may suffice to deliuer fully in generall terms concerning musts or new wines. As for their properties, There is no must or new wine, but it is hurtfull to the stomack, though otherwise pleasant to the veines and passages. Certes, if a man poure downe new wine hastily, without breathing or taking the wind between, presently as he commeth out of the bain or hot-house, hee doth enough to kill himselfe. Howbeit, of a contrary nature it is to the Cantharides, & saueith those that are in danger by drinking them. A singular counterpoison is new wine in the lees, against al serpents, but principally the Hemorrhoids and the Salamanders. It causeth head-ache, and is an enemy to the throat and windpipes: whole some it is for the kidnies, the liuer, and the inward parts of the bladder, for it easeth them all of pain. But a singular vertue it hath against the venomous worm or flie Buprestis, aboue the rest: if one drink it with oile, and cast it vp againe by vomit, it is an excellent remedy for those who haue taken too much Opium: it helpeth those who are in danger of studdled milk within the body: such also as are poisoned with hemlock, envenomed with the poison Toxica & Dorycnium. In sum, white new wine is not so powerfull in operation as others.

Athers. Likewise, the Must, whereof cuit is made, is pleasanter than the rest, & causes lesse headach. As touching the sundrie kinds of wine, which are exceeding many as also the vertues, and properties of euery seuerall sort in manner by it selfe, I haue sufficiently discoursed in a former Treatise. Neither is there any point more difficult to be handled, or that affourderth greater variety of matter. And a man cannot readily say, Whether wine be more hurtfull or whole some for our bodies? considering the doubtful euent and issue presently on the drinking therof, for that sometime it is a remedy and a helpe, otherwhiles it proueth to be a mischief and a very poison. For mine owne part, according to my first design and purpose, I am to treat only of such things as Nature hath brought forth for the health and preservation of man. Wel I wote, that *Astlepiades* hath made one entire volume expressly, of the manner how to giue wine in drinke. Vpon which treatise or book of his, an infinite number there were who haue written their Commentaries. As for me, according to that grauity which becometh Romanes, and to their affection and loue to all liberall Sciences, I will not discourse thereof as a Physician, but with great care and diligence write so distinctly, as a deputed judge or arbiter delegat to determin of mans health, and the preservation thereof. To dispute and reason of euery seuerall kind, were an endles peece of work, and so intricat, as I wot not how a man should rid himselfe out of it, if he were once entered; so repugnant and contrarie are the Physicians one to another in that argument.

To begin first with the wine of Surrentum, our ancients haue held it simply for the best aboue all others. But our later and more moderne writers, haue made greater account of the Albane and Falerne wines. In summe, euery one hath iudged of the goodnesse of wine, according to his owne conceit and fantasie: a most vnequall course of proceeding, without all reason and congruities, to pronounce definitiue vnto al others that for best, that pleased and contented his owne tast most. And yet set the case and say, they were all agreed and of one opinion as touching the most excellent wines; How is it possible, that the whole world should enioy the benefit thereof, since that great lords and princes themselves haue much adoe to meet with pure and perfect wines, without one sophistication or other? In good faith, the world is grown to this abuse, that wines be bought and sold now at an higher or lower price, according to the name and bruit that goeth onely of the cellars from whence they come: whereas in truth, the wines were marred and corrupted at the first in the very presse or vatt, presently after the vintage and grane gathering. And therefore it is, that now adaies (a wonderfull thing to be spoken) the smallest and basest wines are of all others least sophisticate and most harmelesse. Well, howsoeuer it be, and admit the noblest kinds of wine are most subject to those bruings and sophistication, which make indeed the ods that is; yet those wines before named, to wit, the Falerne, Albane, and Surrentine, do still import and carrie away the victory and prise from all the rest, by the generall voice & constant sentence of al writers. As touching the Falerne wine, it is not whole some for the body, either very new, or ouer old; a middle age is best, and that begins when it is fifteen yeres old, and not before. This wine is not hurtfull to a cold stomack: but I cannot say of a hot stomack. If it be taken alone and pure of it selfe in a morning, and drunke fasting, it doth much good to them who haue bin troubled with a long cough, or vexed with a quartan ague. And verily, there is not a wine that stireth the bloud and filleth the veines so much as this. It staireth the laske, & nourisheth the body. Howbeit generally receiued and beleued it is, That this wine dimmeth the eyesight, and doth no good to the bladder and neruous parts. And indeed, the Albane wines agree better with the sinews. And yet the sweet wines that come from the vineyards of the same tract are not so whole some to the stomack: but the harsh and hard austere wines of this kind, be in that regard better than the Falerne wines aboue said. And in one word, these Albane wines help digestion but little, and in some sort stiffe and fill the stomack. But the Surrentine wines charge not the stomack any jot, nor yet fume vp in the head: nay, they restrain and repress the rheumaticke fluxions both of stomack and guts. As for the wines of Cæcubum, they bee now past date, and none of them are made any more. But those of Setinum, that remaine still and be in some request, doe mightily aid concoction, and cause the meat for to digest. In a word, Surrentine wines haue most strength, the Albane drink harder, and the Falerne be more mild and nothing so piercing as the rest.

The Statane wines come not far behinde these abouenamed. As for the Signine wine, out of all question it is simply the best to bind the body, & stop a vehement flux: thus much for wines and their properties in particular. It remaineth now to speake of their vertues in generall.

First

* Ife note
son of this
clause here,
but thinke it
superfluous,
according to
some manu-
scripte copie

First and foremost, wine maintaineth and fortieth the strength of man, engendreth good blood, and causeth a fresh and liuely colour. And herein verily consisteth the principall difference betweene our temperat climat within the heart (as it were) and middle part of the world, from those intemperat Zones on either hand. And looke how much the distemperature of the two Poles, worketh in the inhabitants of those parts, and hardneth them to endure and support all kind of trauell: so much doth this sweet and pleasant liquor of the grape enable vs to abide and suffer the like labour. And because we are entred into this theame, note thus much moreover, That the drinking of milke nourisheth the bones: of beere and ale, and such like, made with corne; feedeth the sinewes and nervous parts: but of water, maintaineth the flesh and brawnie muscles onely. Which is the cause, that such nations as drinke either milke, ale, beere, &c. or sheere water, are nothing so ruddie of colour, nor so strong and firme to vndergoe painefull trauell, as those, whose ordinarie & familiar drink is wine. And in truth, as the moderat vse of wine comforteth the sinewes & helpeth the eyesight; so the ouer-liberal taking thereof offendeth the one, and enfeebleth the other. Wine recreateth & refresheth the stomack: wine stirreth vp the appetite to meat: wine allaieth sorrow, care, and heauinesse: wine prouoketh vrin, and chafeth away all chilling cold out of the body. Finally, wine induceth sleep and quiet repose. Moreover, this good property hath wine, To stay the stomack & repress vomits, taken into the body: and without-forth applied with wooll embrued and bathed therein, to dissipat and resolu all swelling apostumes. *Asclepiades* was so addicted to the praise of wine, that he bashed not to make comparifons & pronounce, that the power and puissance of the gods was hardly able to match and counteruaile the might and force of wine. Moreover, this is to be noted, that old wine will beare a greater proportion of water than new, and prouoketh vrine more: although it withstand and allay thirst lesse. Sweet wines do not so much inebriate and ouerturne the brain, as others; but they flote aloft in the stomack: whereas austere and hard wines be lighter of digestion and sooner concocted. The lightest and smallest wine is that which soonest commeth to his age, and sheweth it most quickly. The wines which by age and long keeping, lay downe their verdure and become sweet, are lesse hurtful to the sinews than others. The grosse, fattie, and blacke wines, are not so good for the stomack; howbeit, they be most nutritive: for the thin and bruske harsh wine nourisheth the body lesse; but yet more agreeable and nutritiue it is to the stomack. It passeth more speedily away by vrine, but smeth vp so much the rather into the head. And take this for a generall rule once for all, not only in wines, but in any other liquors whatsoever, that be penetratiue, subtil, and piercing; That they be alwaies offensive to the head, howsoeuer otherwise they be piercing and passe soone away. Furthermore, wines that are laid vp in smokie places, thereby sooner to seeme refined and old, are of all others most vnwholsome. But this and such casts were deuised by hucksters, vinnners, & tauerneers, after the wines were laid vp in their cellars. And now adaies good housekeepers also haue inuented means to renew their wines, and make them seem fresh and new, after they haue by long lying gotten a fusty rotten tast, and gathered a mouldy mother of themselves, which is called *Caries* in Latin. And verily, our auncitors by vsing this tearme, in wines ouerstale and kept ouer their due age, haue giuen vs counsell and taught vs sufficiently, how to take away this vnpleasant tast of wine, (4) by smoake: for like as smoake eateth away and consumeth the moisture and mouldinesse in timber, which causeth rottennesse, so it doth in wines. But we forsooth, contrariwise are persuaded, that the bitternesse of smoake, when it hath caught the wine, maketh it to appeare stale & old. Such wines as be very pale and whitish, proue the better and more wholsome by age and long lying: the more excellent that the wine is and of the kindlier grape, the thicker and grosser it waxeth by age; and in this gathering turneth to a kind of bitternesse, which is hurtful to mans body. Also, as vnwholsome it is to mix, season, and confect therewith some other wine, that is not so old, & so to keep or drinke them together. Each wine agreeth best with the stomack, and doth least harme, when it hath no other liquor nor tast, but the owne, and euery wine is most pleasant and delightfome when it is taken in due time, that is to say, neither old nor new, but of a middle age, which is the very floure. Such persons as would feed, and desire to be corpulent, or to keep their bodies soluble, and haue the piddance of their bellie at commaund, shall do well to drinke often at their repast: Contrariwise, they who feed ouermuch, and desire to be gant and slender, and withall, to be costliue, ought to forbear drinking at meales, so long as they eat, but after meat they may drinke moderately. To drinke wine vpon an emptie stomack fasting, is a new found deuise lately come

vp,

A vp, and it is most vnwholsome for the body, and namely for those who are to goe into the field for to fight a battell: for it hindereth the forecast of the mind, and dulleth the vigor and quicknesse of the spirit: fitter indeed to bring and lull men asleep in the bed of securitie: certes, it was a practise long agoe among such as desired rest and peace, and who loued to sleepe in a whole skin, for to drinke wine fasting: for so we read in *Homer*, how *Helena* that faire ladie, presented a cup of wine before meat. And hereupon came the prouerbe, That wine doth ouerhadow and darken the light of wisdom & vnderstanding: verily we that are men haue this property about all other liuing creatures, and we may thanke wine for it, That we drinke many times when wee be not dry nor a thirst. And therefore passing good it is to, drinke fair water otherwhiles between. In like manner such as vse ordinarily to be drunk, & are lightly neuer sober, shall not do amisse to take a good draught of cold water presently vpon their liberall pouring in of wine, for it will forthwith dispatch and disscuse those fumes which cause drunkennes. *Hesiodus* giueth counsell to drinke wine somewhat delaied with water, for 20 daies before the rising of the Dog star, and as many after. True it is indeed, that Mere* wine not delaied, is a remedy against hemlock; *Coriander*, the poyson *Aconite* or *Libard* baine, the venomous gum of the plant *Chamaeleon*, called *Ixia*, *Opium*, or the juice of *Poppie*, and *Quickefiluer*; also, for such as haue beene stung with *Bees*, *Walpes*, and *Hornets*, the venomous spiders *Phalangia*, *Serpents*, and *Scorpions*, and generally, against all those poysons, which by reason of a cold quality moritifie naturall heat. But particularly it is a special countrepoison against the venomous worms called *Hemorrhoids* & *Presters*, as also the deadly *Mushrooms*. Ouer and besides, singular good is wine against ventosities, gripings, and gnawings about the midriffe and precordiall parts about the heart: also for those, whose stomacks are ready euery while to ouerturne & cast: and where the belly or entrails be troubled with rheumatick fluxes. Semblably, wine a little delaied, is singular for the bloody flux: for such as be giuen to faint sweates, old coughs, and any violent fluxes either into the eyes or other inferior parts. But a fomentation of meere wine may be applied with a sponge to the left pap in the case of the Cardiacke passion, which is a feeblenesse and trembling of the heart. And in these cases white wine is better than any other, so it be of some reasonable age. Also it is found by experience, That horses and such beasts, either for the saddle and pack or draught, become very lusty, if their stones or genitors be bathed with wine hot: & when they be tired out, there is nothing (by report) better to refresh their courage, than to poure wine into them with an horne. Apes and *Marmosets*, and other four-footed beasts, whose feet are diuided into claws or toes, will not grow (men say) if they be vsed to drinke pure wine. But it is my purpose now to treat of the properties of wine, touching Physick and the cure of maladies. For gentlemen, well born and bred, who haue wherewith, and may haue what they wil, the wines of *Campaign* I count wholsomest, so they make choise of the finest and the thinnest. But the common sort may be Physicians to themselves, and drinke euery man what wine he liketh most, and findeth best to agree with him. Howbeit to speake generally, the wholsomest wines both of the one sort and the other, and for all persons, be such as haue run through a strainer or *Ipcoras* bag; and thereby lost some part of their strength. But this we must remember euery one of vs, That the liquor of wine gets all the force and strength that it hath by working, spurning, and seething (as it were) in the lees while it is Must. To mingle sundry kinds of wine together, can be good for none, either rich nor poore. Contrariwise, that wine is held most healthfull, that is of it selfe, and had nothing put thereto in the first vatt or vessell when it was new and meere Must of the grape, and the better will it bee, if there come no pitch into the barrells or vessells wherein it is tunned or filled. For as touching those wines, that are medicined with marble, plastre, and quicklime, what a man is he (were he neuer so healthy & strong) but he may be afraid well enough to drinke thereof? wel then, wines either tunned vp or delaied with sea water, be hurtfull to the stomack, sinewes, and bladder, as much as any other. As for the wines dressed and confected with *Parrozzine*, they are thought to be wholsom for cold stomacks: but contrariwise, good they are not for such as are prone to vomit, no more than Must it selfe, or cuit, whether it be *sapa* or *pasum* wine, wherein rosin hath bin newly put, is not for any man to drinke; for it causeth headach, swimings and dizziness in the brain: and no maruel if this mixture be called *Crapula*, for it intoxicateth the braine. Howbeit, these wines thus brued and dressed with rosin, are good for the cough and all rheumes; likewise, for feeble stomacks and the flux thereof ensuing, as also in dysenteries or exulcerations of the guts, and their bloody flux; and last of all, for womens termes. In these kind

of

of wines thus mixed and sophisticated, the claret or deep red are more astringent and hot than all others. Lesse harme yet commeth of those wines which bee prepared with pitch alone, and nothing else. Neuerthelesse, we must not forget, that pitch is nothing else but the liquor that runneth from burnt Parrozin. And in truth, these wines that stand vpon pitch, doe heat the stomacke, helpe concoction, and purge offensive humours: they be good for breast and belly: also, comfortable to the matrice, for they doe allay the paines thereof, if the women haue no feauerous disposition; and doe cure Rheumes and Catarrhes, which haue continued their course a long time: they heale inward vicers, ruptures, spasms, and convulsions; impostumes bred within the interior parts, feebleness of the finewes, ventosities, coughs, purfluensse, wheezing, and shortnesse of breath; and finally, helpe dislocations, beeing applied with vnwashed and greasie wooll, as it grew in the fleece. But note, that for all these infirmities abouenamed, the wine is more effectual, which naturally hath the tast of pitch, and therupon is called Picatum, than any other, that by artificiall meanes is dressed and prepared with pitch. And yet the wines made of the Heluenake grapes, if a man drink ouer-liberally of them, are wel known to trouble the head, notwithstanding they tast of pitch naturally. To come now vnto the disease, which we call the feuer or ague, this is certaine, That wine ought not to be giuen in that sicknesse, vnlesse the patient be well slept in yerres and aged, the disease chronicke and of long continuance, or that the sicknesse begin to decline and wear away: for in hot, quick and sharpe feauers, which commonly be very dangerous, the sicke persons, be they young or old, ought to be restrained altogether from wine; except a man may euidently perceiue some remission or alleuiation of the disease: and the same rather in the night, than by day time; for certainly, the daunger is lesse by the one halfe, if they drinke wine toward night, and in hope to procure sleepe. Moreover, women newly deliuered & brought to bed (whether they went the full time, or slipt an abortiue fruit vntime-ly) are not allowed in any case to drink wine: neither those persons who haue weakened their bodies with the immoderat vse of women, and thereupon fallen sicke: ne yet such as be subiect to the headach: no more than those, who during the fits of agues, feeble their legges and other extreame parts to be cold: or haue a cough ioined with their feauer. Moreover, wine is an enemy to all those who haue a shaking and trembling of their joints, or be pained either in their finewes or throat. Furthermore, in case the force of the disease be knowne to lie much about the

* small guts and hypocondriall parts, the patient must altogether forbear to drink wine. They are to abstaine likewise when there is any hardnesse felt in the midriffe and precordiall parts: K and when the pulses beat mightily, and goe faster than ordinarie. Semblably, in case the cramp doe draw the necke farre backe with a cricke, so as the head cannot stirre forward: or take the whole bodie so, as it is not able for to turne any way, but seeme as stiffe as if it were all of one peece; no wine must be giuen vnto such a patient. In like sort, those are forbidden to drinke wine, who are giuen to * yexing: and much more they, who in an ague labor for breath, and draw their wind hardly. But most of all must the sicke be kept from wine when their eies be set in their head, and their eye-lids stand stiffe and starke, with their eyes broad open: or bee shut, by reason that they are weake and heauie. Also, they must auoid wine (if they bee wise) who in their sicknesse, as they winke or twinkle with their eyes, doe imagine that they sparkle & glitter againe: like as those who cannot lay their eyes together and close their lids, but sleepe open eyed. And euen so they ought to flie from drinking of wine whose eyes be red and bloud-shot-ten, or otherwise giuen to bee full of viscous and gummie matter. Neither are they permitted to drinke any wine, who cftsoones stut and cannot pronounce their words perfectly, whether it bee, that their tongue bee ouer-light and spongeous, or otherwise dull and heauie: no more than those, who hardly and with much difficultie, make water: who are affright sodainly at euery little thing that they heare or see: who are giuen to crampes and crickes: such also as otherwhiles lie benumbed, as if they were dead asleepe. And last of all, as many as shed their sperme involuntarily in their sleepe. True it is, and no man maketh any doubt, That the onely hope and right way to cure them, who in the Cardiake disease, for very faintnesse are troubled with the trembling and shaking of the heart and giuen vnto diaphoreticall sweats, consisteth in the drinking of wine. And yet in the manner thereof, Physicians are not agreed: For some are of aduise, not to giue it but in the very fit and extremitie of the disease: others againe prescribe it at no time else, but when the violence of the fit is past, and the patient at some ease. They who are of the former opinion, haue a regard to their sweat, for to repress it: but these

* Circa Jlia.

* Especially if it proceed fro some hot or sharpe humor.

A haue an eie to the danger of the patient, being of this mind, that it is a more safer course to giue wine when the violence of the sicknesse abateth. And indeed of this judgement I see that most Physicians are. As touching the time to drinke wine, this is certaine, that good it is not but at meat: neither presently after sleepe, nor immediatly vpon any other drinke, which is as much to say, as neuer but when a man is drie and thirsty. Neither must a sicke man be allowed it, but in case of necessity or desperat extremity. In summe, we graunt it to men rather than to women: to aged persons sooner than to young folke: and yet to a lustie young man, before a child: in Winter oftner than in Summer, and to conclude, to such as bee accustomed thereto more than to those who haue not drunke thereof beforetime. A measure also and mean would be kept, in the allowance of wine, according to the strength thereof, and the proportion of water mixed therewith: and the common opinion importeth thus much, That to one cyath of wine it is sufficient to put two cyaths of water ordinarily. But in case the stomack be weak & feeble, so as the meat digest not nor passeth away downward, meer wine is to be giuen to the patient, or at leastwise in greater proportion to the water.

But to return again to those artificiall and made wines, I haue heretofore shewed many sorts therof: the making of them is at this day giuen ouer, as I suppose, and their vse needlesse and superfluous, considering that now we giue counsel & prescribe, to vse the very simples themselves in their owne nature, which go to their composition. Certes, beforetime the Physicians vpon a vain ostentation, because they would seem to haue their apothecary shops furnished with such variety, exceeded all measure in this behalfe: in so much, as they were prouided of a wine, made forsooth of Nauewes, bearing the world in hand, that it was singular good for militarie men, if they found themselves ouerwheared either with the practise or the bearing of arms, or in riding their horses: yea, and to say nothing of all the rest, they had the wine also of Iuniper: but is there any man so foolish, as to think and maintain, That Wormwood wine should be more profitable to our bodies, than Wormewood the hearb it selfe? What should I stand vpon the wine of dates, among others of this range, considering that it causeth head-ach, and is good for nothing els but * to ease the costiuensse of the body, & for such as reach vp bloud? As for that which we called * Bion, I cannot see or say, that it is an artificiall wine: for surely, al the art and cunning that goeth to the making of it, lieth in this only, That it is made and huddled vp in hast: & yet profitable it is for a weake stomack readie to ouerturn, or that is not able to concoct and digest the meat within it, wholefom for * women with child: comfortable to those who be feeble and faint: good for the palsie, the shaking of the lims, the swimming and giddines of the head, the wrings and torments of the belly, and the gout Sciatica: moreover it hath the name, for to haue a singular vertue to helpe in time of plague, and to stand them in great stead who are pilgrimes and trauellers into far and straunge countries. Thus much may suffice for Vines.

Moreover, say that wine be turned, corrupted, and changed from the own nature, yet it leaueth not to retain certaine vertues and properties requisite in Physicke: for vinegre also is medicinale. Exceeding refrigeratiue it is, & cooleth mightily: howbeit, no lesse vertue and force it hath to discusse and resolute: an euident prooffe whereof we may see in this, That if it be poured on the ground, it will some and cast a froth. Concerning the manifold operations that it hath in composition with other things, I haue written oftentimes already, & wil write stil as occasion shall serue. But vinegre, euen taken alone by it selfe, fetcheth the stomack & appetite again to meat, and staith the yex or hocquet: and if it be smelled vnto, it stinteth immoderate sweating. Being held in the mouth, it preferes folk from fainting with extreme heat, while they are in the bain or hot house. Of it and water together there is made Oxycrat, which is a drink more mild than vinegre alone. And the same with water is comfortable to those who vpon the Suns heat haue gotten the headach or a day-feuer and be newly recovered: being vled also in the same sort with water, it is counted most wholefom for the inflammation or rheum of the eies. A fomentation with oxycrat or water and vinegre, is singular good vpon * burns, scaldings, or rising of the pimples. In like maner it cureth the leprosie, scurfe, and dandruffe, running vlcers and scabs, bitings of dogs, stinging with scorpions, scolopendres, and hardi shrews; and generally, it is good against all prickes of venomous beasts, or pointed darts, and any itch whatsoever. Likewise against the biting or prick of the * Cheeslip or Many-foot worrne. Applied hot with a sponge to the seat, it is singular for the infirmities of the fundament. But for this purpose there must be a decoction or fomentation made, with three sextars of vinegre, whereunto there should be put of Sulphur

* Contrarie to Distordis, who giue hic catias & dy-ferentia, or Bion. * Troubled with wine and quassia, a corrupt and deprauate appetite, longing after this and that, and for alwaies the best things.

* Post vvedicis. Some read hion. vides, i. after the sucking of Horse leeches.

* Multipedag. called others wife Sept.

or Brimstone two ounces, or a bunch of Hyssop, and then set ouer the fire for to boile together. In case of much effusion and losse of blood, which ensueth and followeth those who are cut for the stone, or any thing els taken out of the body; there is nothing better than to foment the place without forth, with the strongest vinegre that may be had, in a sponge, and then to take inwardly in drinke 2 cyaths of the same: for surely it curteth and dissolueth the cluttered blood lying within forth. Vinegre taken inwardly & applied outwardly, cureth the filthy tetter called Lichen. Being ministred by way of clyster, it knitteth the belly, and staieth all rheumatick fluxes that haue taken a course by the guts and entrails. And the same helpeth as well the fall and slipping downe of the Longeon or fundament, as the laxitie and hanging forth of the Matrice. An * old cough it restraineth: the rheumes also and catarrhes it represseth, which light on the throat and windpipe: it openeth the passages in them who labor for breath, & canot take their wind but sitting vpright: it confirmeth also the teeth loose in the head: many it hurteth the bladder, and doth harme in all infirmities of the sinewes. The Physicians were ignorant heretofore of the foueraign vertue that vinegre had against the sting of the serpent called Aspis, until by a meere chaunce they came to the knowledge hereof. And thus stood the case: It fortuned that a certaine fellow carying about him a bottle of vinegre, trode vpon the said adder or serpent, that turned vpon him againe and stung him: howbeit he felt no harme at all so long as he carried the vinegre: but so often as he set the bottle downe out of his hands, the sting put him to sensible paine. By which experiment it was found and knowne, that vinegre was the only remedy, and so with a draught therof he had help out of hand, and was cured. But behold another prooffe and triall thereof. They that vse to suck out the poyson of venomd wounds given by serpents and such like, vse no other collution to wash their mouths withal, but only vinegre: certes, the force of vinegre is such, that it conquereth not only the strength of our viands & meats, but also many other things: for the very hard rocks, which otherwise it was vnpossible to cleaue before with the violence of fire, soone breake and giue way, when vinegre is poured aloft. This singular gift moreouer it hath, that no liquor in the world giueth a better tast to our meats and sauces, or quickneth them more than vinegre doth: for which purpose, if it be ouerharpe and strong, there is a means to mitigat and dull the force thereof, either with a roste of bread, or some wine: againe, if it be too weake and apalled, the way to reuiue it againe, is with Pepper or the spice Laser: but nothing moderateth it better than salt. And to knit vp and close this discourse of vinegre, I cannot forget nor ouerpasse one rare and singular accident that befell of late: *M. Agrippa* in his later days was much troubled and afflicted with a grievous gout of his feet; and being nor able to endure the intollerable paines therof, took counsell of a certaine leaud leech, some bold and venterous Emperick, who made great boast of his deep skill and admirable knowledge (for the Emperour *Augustus Caesar*, whose daughter he had espoused, he made not acquainted with the matter,) who gaue him counsell to bath his legs with hot vinegre, and to sit therein about his knees, at what time as his disease tormented him most: true it is indeed, that he was eased of this paine by this means, for he lost the very feeling of his feet. Howbeit, *Agrippa* chose rather to be paralyticke in some sort, and to want both vse and sence of his legges, than to abide the extreme of his gout.

CHAP. II.

¶ Of vinegre Scyllitike. Of Oxymel. Of the double cuit wine Sapa. The lees of wine: dregs of vinegre: and of the foresaid cuit.

THe vinegre of Squilla or sea-Onions, called Scillinum, the elder it is and longer kept, the more is it esteemed. This vinegre, ouer and aboue the other vertues of common vinegre before rehearsed, hath this property, To helpe the stomacke, in case the meats lie souring and corrupting therein: for no sooner doth a man tast thereof, but it dispatcheth and riddeth away the foresaid inconuenience: moreouer, it is good for them that are giuen to vomit, fasting, in a morning: for it hardeneth the throat & the mouth of the stomacke which is ouersensible, & knitteth the same. It causeth a sweet breath, confirmeth the flesh about the gums, fasteneth the teeth which are loose, and maketh a bodie look with a fresh and liuely color. Being gargarized, it draweth away and doth euacuat those grosse humors which caused hardnesse of hearing, and openeth

A openeth the auditory passages of the ears; and so by consequence clarifies the sight of the eies: Soueraigne it is besides for those who haue the falling sicknesse, and who are troubled in mind by occasion of melancholy. It cureth the turning and dizziness of the braine, the suffocation or rising of the mother. It helpeth such as be fore and bruised with dry blowes, such as are false headlong from high places, and thereby haue cluttered blood gathered within their bodies: as many also as haue the infirmity or weaknesse of sinews, or otherwise be diseased in the kidnies: howbeit offensiu it is to those that haue any vicer either within or without.

Touching the Syrup Oxymel, *Dieneches* saith, That the ancients in old time prepared and tempered it in this manner. They tooke of honey ten pounds, of old vinegre five hemines, of bay salt one pound, of Sauerie three ounces, of sea water five sextars: These together in a kettle they did set to boile, and let them haue tenne walms ouer the fire: then they lifted the pan from the fire, poured this liquor out of one vessell into another, & so kept it for their vse: but *Asclepiades* comes after, disproueth all the maner of this composition, and withall condemneth the vse thereof: for the physicians before his time, feared not to prescribe it to be drunk even in feuers; and yet both head and all, do confesse and agree, that this was a good drink against the venomous serpent called Seps: also for them who were poysoned with Opium, [i.e. the juice of Poppey] or with the gum Ixia, which commeth from the hearb Chamæleon. Moreouer, they all commend it to be gargled hot for the squinancy, for the paine and deafnesse of ears, for the accidents and infirmities of the mouth and throat: like as at this day we vse in all these cases, the sharpe brine or pickle called Oxalme; which if it be made of salt and new vinegre that is fresh and quick, it is better in operation.

As for the cuit named in Latine Sapa, it commeth neere to the nature of wine, and in truth nothing els it is, but Must or new wine boiled til one third part and no more do remain: & this cuit, if it be made of white Must is counted the better. Vse there is of it against the flies Cantharides and Buprestes: against the worms breeding in Pine trees, named the reupon Pityocampa, against Salamanders, and generally all those beasts whose sting or tooth is venomous. If a woman drink thereof, together with scallions or such bulbs, it sendeth downe the after burden, and expelleth the dead infant out of the womb. And yet *Fabianus* mine author saith, That it is no better than a very poyson, if a man drink it fasting presently after he is come out of the bath.

A consequent and appendant to these foresaid things, is the lees of wine; that is to be considered according to the wine from whence it commeth: and verily the lees of wine are so strong, that oftentimes it ouercommeth and killeth those, who go downe into the vats & vessels wherein the wine is made. But to know and prevent the daunger thereof, this experiment is found; namely, to let down a candle into the said vat: for so long as it will not abide light, but goe out still, daungers it is for a man to enter into those vessels. And yet wine lees without any washing at all, goe into the composition of many medicines. Take wine lees a certaine quantity, and of the floure de-lis or Ireos root a like weight, conorporat them together into a liniment: singular it is to annoint the small pocks and such like cutanean eruptions. The same either drie or wet, may be applied with very good successe to the places stung with the venomous spiders called Phalangia; to the inflammations also of the genetours or priuy members; to the paps, or any other part of the body whatsoeuer. Now for the better preparing therof, it ought to be sodden in wine, together with barley meale and the powder of frankincense; which done, to be burden and so dried. And to know whether it be sufficiently sodden or no, make this triall: If you touch it neuer so little at your tongues end and so tast therof, when it is thoroughly cold, it will seeme to bite and burne it, if it haue had sufficient boiling as it ought: but it soone loseth the heart and force, if it be not kept in a place well enclosed: by the said burning, it commeth to be much more stronger in operation. Sodden with figgs, it yeeldeth an excellent decoction to represse tetter, shingles, and such like wild fires, to scoure away also scurfe and dandruffe: & in that sort either applied as a cataplasme or fomentation, it cureth the leproie and running skals of the head. Being taken in drinke, especially raw, it is a soueraign countrepoison for such as haue eaten venomous mushrooms. Boiled and washed, it is mingled with collyries which serue for the eyes. A liniment therof, cureth the accidents that befall to the cods and genetours. Taken in wine, it helpeth the strangury, and giueth them ease who otherwise could not pisse but by drop-meale. Lees of wine, after it hath lost the caustick operation and life that it had, will serue very wel for a good lie or water to cleanse the skin of our bodies, and to wash or scoure clothes: and then

then verily, it hath the astringent power of Acacia, and serueth for the same vse.

The dregs of vinegre, must of necessitie be much more sharpe, biting, and vlceraue, than wine lees, in regard of the matter whereof it commeth: it drieth backe impostumes or biles, and keepeth them from suppuration. A liniment of it, helpeth the stomack, belly, and entrails: it staith the flux of those parts, and the ouerflow of womens months: it discuteth pusses and small biles, and squinances, if they be taken betimes before they fester and impostumat: and a ceror made with it and wax together, is good against *S. Anthonies* fire. The same drieth vp the milke in womens breast, who would not be nourses, or bee troubled with ouermuch milke. It taketh away with ease the ilsauoured rugged nails, and giueth room for new to come vp in their place. Applied with grosse barley meale or groats, it is singular and most effectuall against the venome of the horned serpents, called in Greeke *Cerastra*: and with Gith or *Nigella Romana*, it is vsed for the biting both of crocodile and mad dog. The burning also of these dregs, quickeneth & fortifieth the strength therof, & being thus burnt and incorporat with the oile of *Lentiske*, * it coloureth the haire of the head in one night red, if they bee annointed withall: The same lapped in a fine linnen cloth, and put vp in forme of a pessarie, cleanseth and mundifieth the secret parts of women.

To conclude with the grounds or lees of the cuit Sapa; vinegre dregs are knowne to be very good for to heale burnes; and the cure proceedeth better, in case they be mixed with the surry cotton or downe of reeds: the same being foddene, and the decoction thereof taken as drinke, cureth inueterat coughs: Last of all, they vse to seeth or stew it betwene two platters with salt and greafe, wherewith they make a liniment or ointment to take down the swelling of the chaws and the nape of the necke.

CHAP. III.

¶ *Oleum trees: of the leaues of Oliues: their floures and their ashes. Of the white and blacke Olive berries: and of the mother or lees of Oile-oliue.*

NExt after the Vine, there is not a tree bearing fruit, of so great authority and account as the Oliue. The oliue leaues, are exceeding restringent, good to cleanse, good also to restraine or stop any flux, being chewed and applied to vlcers, they heale them; and reduced with oile into a liniment, they assuage the pain of the head. A decoction of their leaues, together with honey, is singular to bath and foment the parts cauterized by the Chirurgical, according to the direction of the learned Physician: the same vsed by way of a collution, cureth the inflammation of the gumbs, whitflaws, and excrescences of ranke flesh in filthy vlcers: with honey also it stauncheth the flux of blood, proceeding from any neruous parts. The juice of oliue leaues is singular for the little vlcers in manner of carbuncles, with a crust or rouse vpon them, rising about the eies, and all other small wheals or blisters: as also in case the bal or apple of the eye be readie to start forth, and therefore it is vsed in collyries or eye-salues: for it healeth weeping eies that haue run with water a long time, and the excoriations or frettings of the eie-lids. Now this juice is drawn out of the leaues, first stamped, and then well sprinkled and wet with wine & rain water, & so pressed forth, which being afterwards dried, is reduced into trochiskes, The same rolled in wooll or bombast to the forme of a pessarie, and so put vp into the naturall parts of women, staith the immoderat flux of their flours. Good it is also for those, who rid corrupt blood by the inferior parts. Moreover, it easeth the swelling piles or bigs sticking out in the fundament; killeth the cholerique exulcerations called *S. Anthonies* fire; healeth corrosiue and eating sores, and allaieth the paine of night-foes or childblanes, called by the Greeks *Epinyctides*. The same effects haue their floures. The tendrons or young twigs of Oliues being in floure, if they be burnt, yeeld a kind of ashes that may serue as a succedani in stead of Spodium: but the same must be burnt a second time, after they haue bene well drenched and foked with wine. These ashes applied as a liniment, or the very leaues only stamped and tempered with honey, are good for impostumes growne to suppuration, and for the pusses or biles named *Pani*: but if they be mixed with grosse barley meal or groats, they are in a liniment comfortable to the eyes. Take the green branches of an Oliue and burne them, there will destill and drop from the wood a certaine juice or liquor, which healeth ringwormes, tetter, and shingles, scoureth away the scales of the skin and dandruffe, and cureth the running skalls of the head.

Touching

A Touching the gum that issueth from the oliue tree it self, and namely that wild oliue which is called *Aethiopica*; I cannot wonder enough at some, who giue counsell therewith to annoint the teeth which ake, considering that they themselves giue out, That it is a poison, and to be found as wel in wild oliues as others. The rind or bark pared from the root of a most tender and yong oliue, reduced into an electuary, and often licked and let downe by leasure into the throat after the manner of a lochoch, cureth those who reach vp blood, and cough out filthy and rotten matter. The ashes of the very oliue it self, mixed with swines greafe, cure all tumors; draw forth corruption of fistulous vlcers; and when they are thus mundified, heale them vp cleane. White oliues agree very well with the stomack, but they are not so good for the belly. A singular commodity they yeeld before they be put vp in their compost or pickle, for to be eaten Greene by themselves as meat: for they scoure away gravel with vrine; & good they are for the teeth, whether they be worne, rotten, worne-eaten, or loose in the head. Contrariwise, the blacke oliue is not so friendly to the stomack; better for the belly; but offensive both to the head and the eies. Both the one and the other, as well the white as the black, being punned and applied to burned or skalded places, do cure them: but the black haue this propertie, That if they be chewed, and presently as they be taken out of the mouth, laid to the burne or scald, they will keep the place from blistering. Oliues in pickle are good to cleanse foule and filthy vlcers, but hurtful to those, who pisse with difficultie.

As touching the mother or lees of oile oliue, I might be thought to haue written sufficiently, following the steps of *Cato*, who deliuered no more in writing; but I must set down also the medicinal vertues obserued therein: First and foremost therefore, it helpeth the forenesse of the gumbs, cureth the cankers & vlcers of the mouth; and of all other medicins it is most effectuall to fasten the teeth in the head. If it be dropped or poured vpon *S. Anthonies* fire, and such other corrosiue and fretting vlcers, it is of singular operation to heale them: but for kided heeles, the grounds or dregs of the black oile-oliue is the better, as also therewith to foment smal children. As for that of the white oliues, women vse to apply it with wooll to their secret parts, for some accidents thereto belonging. Be it the one or the other, generally it is more effectuall foddene than otherwise. Boiling it ought to be in a copper or brasse vessell, vntill it come to the consistence of honey. Vsed it is with vinegar, old wine, or with must according as the cause requireth, in curing the infirmities of the mouth, teeth, and eares; in healing running skalls; and finally, in the cure of the genetours or priuie members, & of the fissures or chaps in any part of the body. In wounds it is vsed with linnen cloth or lint; but in dislocations, it is applied with wooll. And verily in these cases and in this practise, it is much employed, especially if the medicine be old and long kept: for being such, it healeth fistulous sores. And being injected by a syring into the vlcers of the fundament & genetours, or otherwise by a metrenchyte into the secret fores within the naturall parts of women, it cureth them all. Also a liniment thereof is singular for to be applied to the gout of the feet: also in the rest, whether they be in the hands, knees, hucklebone, or any other joint, so they be not settled or inueterat, but taken at the first. But in case it be foddene againe in the oile of green oliues, vntill it come to the consistence of honey, and so applied, it causeth those teeth to fall out of the head without paine, which a man would willingly be rid of. It is wonderfull to see how it healeth the farcines and manges of horses, being vsed with the decoction of Lupines and the herbe *Chamaeleon*. To conclude, there is no better thing than to foment the gout with these lees of oile, raw,

CHAP. IIII.

¶ *Of the wild Oliue leaues. The oile of the floures of the wild vine Oenanthe. Of the oile Cinnamon. Of Palma Christi. The oile of Almonds: of Bayes, of Myrtles, of Ruscus or Chamamyrsine, of Cypressse, of Citrons, and of Nuts.*

THe leaues of the wild oliue haue the same nature that the leaues of the tame. As for *Antispodium*, or the ashes made of the tender branches of the wild oliue, it is of greater force and operation in staying and repressing of rheume, catarrhes, and fluxes, than that abouenamed in the former chapter.ouer and besides, it assuageth the inflammations of the eies, it mundifieth vlcers, it doth incarnat and fill vp the void places where the flesh is gone, it gently eateth

* *SEVENUS* Salomonius calleth this ointment *Unguentum Cineris*, alledging *Plinie* for his author.

* *i. Butcher's broome.*

eateth away, and without mordication, the excrescence of ranke and proud flesh, drieth the fores, healerth and skinneth them vp. In other cases this oliue is vsed as the other oliues: & yet one peculiar propertie hath the wild oliue, That a spoonefull of the decoction of their leaues with hony, is giuen with good successe to them that spit and reach vp blood. Howbeit, the oile made hereof is more aigre and sharpe, yea and mightier in operation than that of the other Oliues; and a collution thereof to wash the mouth withall ferleth the teeth that be loose. The leaues of the wild oliue reduced into a cataplasme with wine, and so applied, do cure whitflawes about the root of the nails, carbuncles, and generally al such apostemations: with hony the said cataplasme serueth well to clenfe and mundifie where need is. The decoction of the leaues, yea and the iuice of the wild oliue is put into many compositions and medicines appropriat to the eies. To good purpose also the same is dropped into the ears with hony, yea although they ran filthy atter. A liniment made with the floures of the wilde Oliue, is singular for the swelling piles and the chilblanes that be angry in the night: and the same applied with barley meale to the belly, or with oile to the head for the ache thereof, occasioned by some rheume, is known to do very much good. The young tendrils or springs of the wild oliue, being boiled and laid to with hony, do re-ioyn and re-vnite the skin of the head which was departed from the bones of the skull. The same tendrils pulled ripe from the wild oliue, and eaten with meat, do knit the belly, and stay lasks: but torrifed, and so beaten to powder and incorporat with honey, they do mundifie the corrosiue and eating vlcers: they breake also carbuncles.

As touching oile of oliues, the nature and manner of making it I haue already treated of at large. But forasmuch as there are many kindes thereof, I purpose to set down in this place such as serue for physick only. And first to begin with the oile made of vnripe oliues, called in Latin Omphacium, and which cometh neere to a green colour, it is thought of all others most medicinable: moreouer, the same is best when it is fresh and new (vnlesse it be in some case when it were requisite to haue the oldest that may be found) thin and subtil, odoriferous, and nothing at all biting, which be qualities al of them contrarie to that oile which we vse with our meats. This greene or vnripe oile (I say) is good for the fores of the gumbes: and if it be held in the mouth, there is no one thing preferueth the whitenesse of the teeth better: it represseth also immoderat and diaphoretical sweats.

The oile Oenanthemum, made of the floures of the wild vine Oenanthe, hath the same operations that oile rosat hath. (But note by the way, that any oile, how soeuer it doth mollifie the body, yet it bringeth vigor and addeth strength thereto.) Contrary it is to the stomacke, it encreaseth filthinesse in vlcers, doth exasperat the throat, and dul the strength of all poisons, especially of ceruse or white lead, and plastre, namely if it be drunk with honied water or the broth of dried figs: but it is taken against Meconium or Opium, with water: against the Cantharides, Buprestis, Salamanders, & the worms Pityocampa, if it be drunk alone without any thing els: but if it be vomited and cast vp againe out of the gorge, it hath no fellow in all those cases aboue named. Moreouer, in lassitudes and extreme colds, oile is a present refreshing & remedy. Taken hot to the quantity of six cyaths, it mitigateth all wrings and torments of the belly, the rather if rue be foddren with it, and in that maner it expelleth wormes out of the guts. Drink it to the measure of one hemina with wine and hot water, or els with the iuice of husked barley, it looseth the belly. It serueth in good stead for vulnerarie salues and plastres: it scoureth & clenfeth the skin of the face. Conueyed vp into the head of kine and oxen, vntill they belch & deliuer it againe, it doth allay & resolueth all their ventosities: but old oile doth heat more, and is of greater force to resolueth a body into sweats than the new, as also to dissipat all hard tumors and swellings. More healthfull also it is to those who lie of the lerbargie, and especially when the disease is in declining and wearing away. Somewhat it is thought to clarifie the eies, namely if it be applied with an equal quantitie of hony that neuer came neere smoke. A proper remedie it is for the head-ache: likewise in ardent feuers it is very good with water, to allay their heat; and if there cannot any old be gotten, it ought to be well foddren, that thereby it may seeme to haue age sufficient.

The oile of Ricinus or Tickseed, called Cicinum, taken as a drink with the like quantitie of M hot water, is singular to purge & euacuat the belly: & it is said to haue a special vertue to clenfe the midriffe and those precordial parts neere the heart. Soueraigne it is for all gouts, hard tumors, the infirmities of the matrice, of the ears, and for all burns or scaldings. And if it be med-

A led with the ashes of shell-fishes called Burrets, it cureth the inflammation of the fundament, and any scab or mangel whatsoeuer. It giueth a fresh color to the skin of the visage, and causes the haire to grow plentifully where it is applied. The seed wherof it is made, there is no liuing creature will touch. Of the grapes which this Palma Christi or Ricinus carieth, there be made excellent weiks or matches for lamps and candles, which will cast a most cleer light, & yet the oile that is drawne out of the seed, giueth but a dim blaze or obscure flame, by reason of the exceeding grossenesse & fumes thereof. Of the leaues tempered with vinegre, there is a liniment made, which is good for S. *Antonie* fire: and of themselves alone being fresh and greene, they be applied with good successe to the paps, and any violent fluxion whatsoeuer: the same, boiled in wine, and laid too, with grosse barley meale or groats and saffron, are singular for al inflammations: and if they be applied by themselves without any other thing, to the visage, they do embelish and polish the skin passing wel within 3 daies. Oile of Almonds is laxatiue: it serueth to soften the body and make it tender; the skin which was riuelled, it causeth to look neat, smooth, and cleare: and being applied with hony, it taketh away freckles and spots out of the face. Boiled with oile rosat, hony, the * rind of pomegranats, it is comfortable to the eares, it killeth the worms therein, resolueth those grosse humors that were the cause of hard hearing, of the thumping, tinging, and other inordinat sounds within the eares; and withall, easeth the head-ach and cureth the dunnies of the eies. Reduced into a cerot with wax, it healeth felons, and cleereth the skin of those who be tanned and sun-burnt: wash the head with it and wine together, it kills the running skall, and riddeth away the dandruffe: applied with Melilot, it discusseth the swelling piles and bigges in the fundament: if the head be annointed with it alone, it procureth sleepe. Oile-de-baies, the newer that it is and greener of colour, the better it is thought to be: hot it is of nature, and therefore good in a palfie, crampe, sciatica, and for bruised places looking blacke and blew vpon stripes: and being heat in the rind or coat of a pomgranat, and so applied as a cataplasme, it helpeth the head-ach, old rheumes, and infirmities of the eares. Oile of Myrtles is made after the same manner: astringent it is, and serueth to harden any part of the body: it knitteth the flaggie gumbes, helpeth the tooth-ach and bloody flux; it cures the exulceration of the matrice and bladder; healeth all old vlcers which run and yeeld filthy matter, if it be brought into a cerot with the scales of brasie, and wax. Also it cureth the meazles, and angry wheales: & so it doth all burns and skalds. It healeth and skinneth any gall and raw place, it skoureth dandruffe, and represseth the breeding thereof: it cureth clifts and chaps: piles and swelling bigs in the fundament, it bringeth down and resolueth, it knitteth dislocations of joints, and taketh away the strong and rank sauer of the bodie. A countrepoyson it is against the Cantharides and the Buprestis: as also against all other venome which is corrosiue and hurteth by exulceration. Touching the ground-Myrtle Chamamyrfine, or Oxymyrfine, it hath the same nature that the other Myrtle hath; and the oiles be of semblable vertues. The oile of Cypress also & likewise of Citrons, be not vnlike to the oile of Myrtles in operation, but the oile drawne from the walnut kernels (which we called Caryinum) is singular to bring haire againe, where it is fallen away by some infirmite: and is infused into the eares, it helpeth the hardnesse of hearing: if the forehead be annointed therewith, it cureth the head-ach. Otherwise, it is but dull in operation, and yet a stinking smel it hath with it. If but one nut kernel be corrupt and rotten, it marreth all the oile that is made of the rest, were there a pecke of them. The oile which is made of the graine or seed of the plant Thymelaea, is of the same vertue that the oile of Palma Christi, or Tickseed aboue-named. The oile of the Lentiske is passing good to make an ointment of, against lassitude and wearinesse: and verily it were aquivalent euery way to oile-rosat, but that it is found to be more astringent: it is vsed much in repressing of immoderat sweats, and those angrie pimples which rise after much sweat. Nothing is there so effectuall to heale the farcines or skab in horses, and such like beasts. The oile of Ben, mundifieth freckles, cureth felons and biles, take away spots and mols, and healeth the apostemations in the gumbes.

As for Cyprios, what a plant it is, and how there is an oile made thereof, I haue shewed already. By nature it is hot, and softneth sinews which be stiffe and stark. The leaues serue to make a good liniment for to annoint the pitch of the stomacke: and their iuice applied in manner of a pessarie, setleth the mother when it rolleth euery way and is out of her place. The greene leaues chewed and applied, cure the running skalls in the head, the cankers and sores in the mouth, all risings and apostemations, and likewise the piles. A decoction of the said leaues, is singular for

The juice of raw Quinces is a soueraigne remedy for the swollen spleen, the dropie, and difficulty of taking breath, when the patient cannot draw his wind but vpright. The same is good for the accidents of the breasts or paps, for the piles, and swelling veins. The floure or blossom of the Quince, as well green and fresh gathered, as drie, is held to be good for the inflammation of the eies, the reaching and spitting of blood, and the immoderat flux of womens monthly terms. There is a mild juice drawn also from these floures, stamped with sweet wine, which is singular for the flux proceeding from the stomack, and for the infirmities of the liuer. Moreouer, the decoction of them is excellent to foment either the matrice when it beareth down out of the body, or the gut Longaon, in case it hang forth. Of Quinces also there is made a soueraigne oile, which is commonly called Melinum: but such Quinces must not grow in any moist tract, but come from a found and dry ground: which is the reason, that the best Quinces for this purpose be those that are brought out of Sicily. The smaller Pear Quinces called Struthia, are not so good, although they be of the race of Pome Quinces. The root of the Quince tree tied fast vnto the Scrophules or Kings-euill, cureth the said disease: but this ceremony must be first obserued, That in the taking vp of the said root, there be a circle made round about it vpon the earth with the left hand, and the party who gathereth it is to say, What root he is about to gather, and to name the Patient for whom he gathereth it: and then, as I said, it doth the deed surely.

The Pome-Paradise, or hony Apples called Melimela, and other fruits of like sweetnesse, do open the stomacke, and loosen the belly, they set the body in a heat, and cause thirstinesse, but offense they be not to the sinews.

* Orbiculata.

The * round Apples bind the belly, stay vomits, and prouoke vrine. Wildings or Crabs are like in operation to the fruits that be eaten soure in the Spring, and they procure costiuenesse. And verily for this purpose serue all fruits that be vnrripe.

As touching Citrons, either their substance, or their graines and seed within, taken in wine, are a counterpoison. A collution made either with the water of their decoction, or their juice pressed from them, is singular to wash the mouth for a sweet breath. Physitians giue counsell to women with child for to eat the seed of Citrons, namely, when their stomackes stand to coles, chalk, and such like stufte: but for the infirmity of the stomack, they prescribe to take Citrons in substance: howbeit, hardly are they to be chewed but with vineger.

* Nomen, and yet heretofore hee named but sine.

* Dioscorides affirmeth the contrary.

As for Pomgranats, needlesse altogether it were now to iterate and rehearse the * nine kinds thereof. Sweet Pomgranats, all the sort of them, which by another name we called Apyrena, are counted * hurtfull to the stomack: they ingender ventosities, and be offense to the teeth and gums. But such as in pleasant tast are next vnto them, which we called Vinosa, hauing smal kernels within, are taken and found by experience to be somewhat more wholsom: they do stay the belly, comfort and fortifie the stomack, so they be eaten moderately, and neuer to satisfie the appetite to the full: & yet some there be who forbid sick persons once to tast of these last named: yea, and in no hand wil allow any Pomgranats at all to be eaten in a feuer, forasmuch as neither their juice and liquor, nor the carnos pulp of their grains is good for the patient. In like maner they giue a charge and caueat not to vse them in vomits, nor in the rising of choler. Certes, Nature hath shewed her admirable worke in this fruit: for at the very first opening of the rind, she presently maketh shew of a perfect wine, without appearance of any grape at all, nor so much as of Must, which ordinarily is the rudiment of wine. All Pomgranats, as well sweet as tart, are clad with a very hard coat & rough rind. And verily the coat which the four kind hath, is much vsed and in great request: and namely the Curriers know full well how to dresse their skins therewith: and this is the cause, that the Physitians name it in Latine * Malicorium. And they would bear vs in hand, That the same doth prouoke vrine: as also, that the decoction therof in vineger, with gal-nuts among, doth confirm and keep the teeth fast, which do shake and are loose in the head. Women with child, and giuen to longing after a strange and vnreasonable manner, finde much good and contentment hereby: for no sooner tast they of it, but the child doth stir and sprunt in their wombe. The Pomgranat diuided into quarters or parcels, and laid to steepe and infuse in raine water, for three daies or thereabout, yeeldeth a good and wholsome drinke for them to take a usually cold, who are troubled with loosenesse of the body, occasioned by a flux from the stomacke; and with casting and reaching vp blood. Of the tart and soure Pomgranat, there is a singular composition, which the Greeks call Stomatice: for that it is a most soueraigne medicine for the infirmities incident to the mouth: and yet it is as wholsom for the accidents of the

* For Coriuth signifies a skin or leather.

A nostrils and ears, as also for the dimnesse of the eies, for the troublefome ouergrowing & turning vp of the skin and flesh about the roots of the nailes, for the genitoirs or priuie members; for corrosiue vlcers which they cal Nomæ, and for the proud flesh and all excrecences in fores. Against the poison or venom of the sea hare, there is an excellent composition made with Pomgranats in this manner: take the grains or kernels of Pomgranates, being despoiled and turned out of their outward rind or skin, stampe them well, and presse out their juice and liquor from them: seeth the same vntill a third part be consumed, together with Saffron, Koch-allom, Myrrh, and the best Attick hony, of each halfe a pound. Others do compound and prepare a medicine after another sort in this wise: they take and pun many soure Pomgranats, and draw out of them a juice, which they seeth in a new cauldron or pot of brasse, neuer vsed before, to the thicknesse

B of honey: this they vse in all infirmities of the fundament and priuy parts; for al griefs and maladies which be cured with the medicinale juice Lycium: with this they cleanse ears that run with filthy matter; restraîne all violent fluxes of humors newly begun, and especially taking a course to the eies; and rid away the red pimples and spots that arise in any part of the body. Whofoeuer carieth in his hand a branch of the Pomgranat tree, shall soone chase away any serpents. The pill or rind of a soure Pomgranate boiled in wine, and so applied, cureth kibes. A Pomgranat stamped and then sodden in three Hemines of wine vntill one remain, is a singular remedy for the torments of the Collick, and driueth wormes out of the belly. A Pomgranate torried in an oven within a new earthen vessell neuer occupied before, well stopped and covered with a lid, and so being calcined and drunk in wine, staeth the flux of the belly, and assuageth the wrings in the guts. The first knitting of this fruit, when the tree * begins to floure, is called by the Greeks Cytinus. Of which there be obserued strange properties, approued by the experience of many men: for if any person, man or woman, vnbraced, vnclad, vnpointed and vnbuttoned, with girdle loose, hose vngartered, & shooes vnbuttoned, and hauing not so much as a ring about any finger, come and gather one of these tender buds or knots, with 2 fingers only, to wit, the thumb and the fourth ring-finger of the left hand; and after this ceremony performed proceed forward to another, namely, to touch lightly with the same bud the compas of the eies round about, as if the priest should sacre or hallow them; and withal, when this is don, coueigh the same into the mouth, and swallow it down whole, so as a tooth touch it not: there goeth an opinion, That he or she for certain shal feelee no impediment or infirmity of the eyes that year throughout. The same knots or yong Pomgranats, if they be dried and beaten to powder, are very good to keepe downe all excrecences of ranke flesh, and be wholsome for the gummies and teeth: moreouer, the very juice drawn out of them after they be sodden, do fasten the teeth in the head, although they were loose and ready to fall out before. The very * yong Pomgranats themselves alone newly knitt, and making shew vpon the tree, if they be stamped to the form of a liment, are singular for any corrosiue vlcers, & such as tend to putrifaction. Likewise, they be excellent good in that sort prepared and applied, for the inflammation of the eies, & of the entrailes, and in manner for all those occasions wherein the outward rinds and pills do serue. And here before that I proceed any farther, I cannot sufficiently admire and wonder at the careful industry and diligence of our antients before time, which they imployed in the consideration of

* Flouere incipit: antea: rather desinentis, according to Galen: for then the fruit is said to knit, when a tree sheddeth the blossoms:

C D Natures workes, searching as they did into euery secret, and left nothing behind them vnassaid and vntried: in so much, as they took regard of those little pretty floures appearing vpon these knots or buds before said, such I meane as break forth and spring, before the Pomgranat it selfe is formed, and maketh any appearance; which smal blossoms, as I said before, * are called Balau

* Ipsi corporisculi. la. Some reade Vascula, meaning the vessels containing the graines.

stia. For euen these, as little as they be, our ancestors haue found by their experiments to be aduerse vnto scorpions. And true it is, that being taken in drinke, they do restraîne the extraordinary flux of womens fleurs: they heale the cankers and sores in the mouth, the diseases of the Tonils or Amygdales, and of the Vvula: they do helpe the spitting and reaching vp of blood; they cure the feeblenesse both of belly and stomack, with the fluxes thereupon insuing: they are singular besides for the grieuances of the priuy members, and for all running vlcers spreading in any part of the body whatsoever. Moreover, they made prooffe of the said floures dried, and this high magistry they found, That being beaten to powder, they cured those of the bloudie flux, who lay at the very point of death on that disease; as also that there was not a better thing in the world to stay any lask or flux of the belly. Nay, they staid not here (so inuentiue were our forefathers) nor thought much to make trial of the very kernels or stones, within their grains, to

* Here is Pliny out of the way

E F

forefathers) nor thought much to make trial of the very kernels or stones, within their grains, to

fee

if they could meet with any goodnesse therein, for to deliuer vnto posterity and the age following. And in good faith, they found, That euen those as contemptible as they seem, beeing torried and so pulverized, doe help and comfort the stomacke, if either the meat be strewed or sprinkled, or the cup spiced with the said powder. And in truth, if they be drunk with rain water, they bind the body: the root of the Pomgranat tree, if it be boiled, yeeldeth a liquor or iuice which being taken in drink to the weight of a Roman victoriat [*i. halfe a denier, or half a dram*] killeth the worms in the belly. The same throughly sodden in water, is of the same operation that Lycium is for any purpose that it shall be put vnto.

Finally, there is a wild Pomgranat, so called for the resemblance that it hath to the planted Pomgranat: the roots are red without forth, * which being taken to the poise of one denier or dram in wine, do procure sleepe. The graines or seeds in drink, drie vp the watery humours that be gotten between the skin and the flesh, in that dropsie which is called Intercus. To conclude, a perfume made with the rind or pill of a Pomgranat, chafeth Gnats out of the place, where it burneth.

CHAP. VII.

Of Peares, and the properties obserued in them. Of some Fig-trees, and their Figs. Of the wild Fig-tree. Of Erincus, and other plants, with the medicines which they afford.

ALL Peares whatsoeuer, are but a heauie meat, euen to them that are in good health. And sick folke are debarred for eating them, as well as for drinking wine. And yet if the same be well boiled or baked, they are marvellous wholesome and pleasant to the tast, especially those of Crustuminum. There is no kind of Peare at all, but if it be sodden or baked with hony, agreeth with the stomack. Of Peares there be vsually made certaine cataplasmes, which are singular good to discusse all pushes, risings, and pimples vpon the body: and their decoction serueth wel to resolute all hard tumors. Peares in substance be a good counterpoison against venomous Tadpoles and Mushrooms; for either they drie them down by their very weight and ponderosity, or els chase them out of the stomacke, through a certain secret antipathy in Nature, that their iuice hath. The wild choke Peares be very late ere they ripen. The manner is to cut them into certaine slices or roundles, and so to hang them vp a drying, for to stay the laske and knit the belly, which their decoction also will do sufficiently, if the patient doe drinke it. The leaves likewise, together with the Peare, are vsed to be sodden for the same purposes. The ashes also of the Peare tree * wood, in case of pestilent Mushrooms is of more efficacie than the Peare it selfe. Poor iades that carry Apples and Pears vpon their backs in paniers, are shrewdly loden: and wonderfull it is to see, how heauy they do weigh, and how a few of them wil make the poore beasts to shrink vnder their burden: but what is the remedy? Let them eat some of those Peares before, or do but shew them vnto them, they will vndergoe (as folke say) their load more willingly, and go away with it more roundly.

The milke or white iuice that the Fig-tree yeeldeth, is of the same nature that vineger: and therefore it wil cruddle milk as well as rennet or rindles. The right season of gathering this milky substance, is before that the figs be ripe vpon the tree, and then it must be dried in the shadow: thus prepared, it is good to breake impostumes, and keepe vlcers open: also to bring down the monthly termes of women, either applied with the yolk of an egge, or taken in drinke with * Amyl or * Starch powder. If the same be tempered with the floure of Feenigreek feed and vineger, and so applied in manner of a liniment, it helpeth the gout. Also it is depilatory, and fetcheth off haire: it taketh away the skurfe of the eie-lids. In like maner it killeth tectars, ring-worms, & any wild scabs. It openeth the body, and makes it soluble. This fig-tree milke is naturally aduerse vnto the venomous stings of Hornets, wasps, and such like. But particularly to the prick of Scorpions. The same if it be incorporat with hogs greafe, taketh away warts. Fig tree leaues & green figs vnripe, reduced into a liniment, do discusse and resolute the Scrophules, called commonly the kings euil, yea, and all such nodosities as are to be mollified. The leaves also alonewil do as much. There is another vse of them besides, namely, to rub therewith tectars and bald places, which through some infirmity haue lost haire: & generally all those parts that had need to be blistered: the tender tops & twigs of fig-tree branches are singular to cure the biting

* I doubt that Plinie mistaketh here, and is caried away with the similitude of two Creeke names to wit, *four*, *i. the red wandering Poppy*, and *four*, *i. the Pomgranat*. For surely the properties by him assigned to his wild Pomgranat, in some sort accord with those of *Papauer erraticum*, or *Corn-Rose*.

* *Pyrus ligni*. *Quere*, if he meane not the stonie kernels of some Peares, which he vses otherwhiles to call *Lignum*.

* *Amylo*, *Diof*. hath *Amygdala*, *i. Almonds*.

A of mad dogs, if they be applied to the skin where it is broken. The same brought to a liniment with honey, healeth the wens or impostumations which be called Ceria, yeelding forth an humor like to hony out of the comb. And if they be tempered with the leaues of the wild Poppy, they draw forth broken spils or shuiered bones. Fig-tree leaues stamped with vineger, do restrain the venom, occasioned by the biting of mad dogs: the white tendrils or sprigs of the blacke fig-tree made into a cerot with wax, and so applied, do cure felons and the biting of hard shrewes. The ashes made of black fig-tree leaues, heale gangrenes, and consume all excrescence of dead or proud flesh. Ripe figs prouoke vrine, make the belly soluble, moue sweate, and bring forth small pocks and meafels: in regard of which operation thus to open the pores, they be vnywholsome to be eaten in Autumne or at the fall of the leafe: for when by their means our bodies be set into a sweate, they are more subiect to take a through cold. Neither be they wholesome for the stomack: but the best is, their offence continueth but a while. Many, they are well knowne to be enemies to the voice. The figs which be of a later breed (as it were) and come last, are wholesome more than those which ripen betimes: (whereas verily, if they be brought to their maturitie by medicining, *i. by caprification*, then they are neuer good;) and these figs increase the strength of young folk: preferue elder persons in better health, and make them looke more yong and with fewer wrinkles. They do quench and allay thirst, and coole vnkinde heat. And therefore such must not be denied vnto the patient, in feuers proceeding from the constriction of the pores, which agues the Greeks call Stegnas. Dry figs offend the stomack: but for the throat and weaknes they are exceeding good. These dried figs are by nature hot in operation, and therefore ingender thirst. They set the belly into a loosenesse: in which regard they are not good to be eaten in any flux or Catarrhs, taking a course either to it or the stomack: wholesome they be at all times for the bladder, for such also as be short winded and purise. Semblably, they open the obstructions of liuer, kidnies, and spleen, and cure their infirmities. Nutritiue they be, and therefore much eating of them causeth a man to grow corpulent, and nathelesse to be strong and lusty withall: which is the cause, that professed wrestlers and champions were in times past fed with figs. For *Pythagoras*, a great master and warden of these exercises, was the first man who brought them to eat flesh meat. Morouer, figs be restorative, and the best thing that they can eat who are brought low by some long and languishing sickness, and now vpon the mending hand and in recoverie. In like manner they are singular for the falling euil and the dropsie. Figs applied as a cataplasme, are excellent either to discusse or els bring to maturity any impostumes or swellings: but they doe the feat more effectually, if either quicke-lime or sal-nitre be mixt therewith. Boiled with Hyssop they cleanse the brest, break and dissolve the flegmatick humors either fallen to the lungs, or there ingendred; & so by consequence rid away an old cough. Sodden in wine, & so applied as a liniment, they cure the infirmities incident to the seat or fundament, they mollifie and resolute the swelling tumors of the paps, they discusse and heale felons, pushes, biles, & risings behind the ears. A fomentation made with their decoction, is good for women. And the same being sodden with Feni-greek, are excellent for the pleurisie & Peripnewmony, *i. the inflammation of the lungs*. Boiled with Rue, they assuage the ventosities or collicke in the guts. The same being incorporat with verdi-grease or the rust of brasse, cureth the morimals of the legs: and with Pomgranats they heale their rising & exulceration of the flesh and skin about the naile roots. But made into a cerot with wax, they heale burnes, scaldings, & kided heels. Seeth Figs in wine with wormwood and barley meale, and put nitre to them, they are passing wholesome for those who are in a dropsie. Chew them, they * binde the belly. Make a cataplasme of Figs and salt together: the same is singular for the sting of scorpions. Boyle them in wine, and so apply them, you haue an excellent remedy to draw forth carbuncles to the outward parts, and bring them to an head. Take the fattest & fullest Figs you can get, lay them vpon the vgly and ill-fauored tumor called Carcinoma, *i. the Canker*, so it be not yet exulcerat: I assure you it is a soveraigne remedy, and hardly can be matched againe: and so it is also for the festering and eating vlcir Phagedæna. There is not another tree againe growing vpon the face of the earth that yeeldeth better or sharper ashes than the wood of the Figge-tree doth, either to cleanse * vlcers, or to incarnat, consolidate, and restrain flux of humors. It is taken in drink for to resolute cluttered blood within the body. Semblably, if it be giuen to drink with water & oile, of each one cyath, it serues wel for those who are dry beaten & bruised, who are fallen from some high place: such also as haue spasms & inward ruptures. And thus they vse to giue it in a

* *Silicis*, *i. the bachelier*, or *villani*, *i. the poor*, *i. the* *Ex Diof*.

* *Vlcera*, out of *Dioscorides*, though some reade *ascia*, *i. the sight of the eie*: which hath no warrant from the author, who here followeth and would seeme to treat of cramps, *i. the*.

cramps, and namely, in that vniuersall convulsion, which holdeth the body so stiffe, that it can stir no way nor other, as if it were made of one intire piece without any joint. Likewise, both taken in drink, and also infused or injected by clystire, it helpeth the fluxe, occasioned either by a feeble and rheumatick stomacke, or els by the vlcere of the guts. If a man rub the body all over with it and oile together, it setteth it into an heat, were it before benumbed. A liniment made of it, and wrought with wax and oile Rosat together, skinneth aburnt or scalded place, most finely, leauing no skar at al to be seen. Temper it with oile, and therewith annoint their eies who are pore-blind, sand-blind, or otherwise short-sighted, it amends their eie-sight: & to conclude, rub the teeth often therewith, it preserueth them white, neat, and from rotting. Thus much of Fig-tree ashes.

Moreouer, it is commonly said, That if one come to a Fig-tree, bend a bough or branch thereof downward to the ground, and bearing vp his head without stooping, reach and catch hold of a knot or joint with his teeth, and so bite it off, that no man see him when he is doing of it, and then lap the same within a piece of fine leather, tied fast by a thred, and hang it about his necke, it will dispatch the kings euill and swelling kernels or inflammations behind the eares.

The bark of the Fig-tree reduced into powder, mixed with oile, and so applied, healeth the vlcers of the belly. Green Figs taken raw, stamped and incorporat with niter and meale, take away all warts, whether they be smooth or rough. The ashes made of those shoots that spring from the root, is a kind of Antispodium, and may go for Spodium indeed. If the same be twice calcined and burnt, and then mixed with cerusse or white lead, and so reduced into trochiskes, they make a good collyrie or eie-salue, to cure the roughnesse and exulceration of the eies.

As many vertues as the mild fig-tree hath, yet the wild is much more effectuall in operation: howsoeuer the yeeldeth lesse milke or white juice than the other doth. For a branch onely of it, is as good as rennet or rindles to make milk turn and run to a cheefe curd. Howbeit, that milky liquor which it hath, if it be gathered and kept vntill it be dry and wax hard, serueth to season our flesh meats, and giue them a good tast. For which purpose it is wont to be mixed and dissolued in vineger, & then the flesh must be well rubbed and poudered therewith. The same is vsually mingled with caustick and corrosiue medicines, when there is an intention to raise blisters, and make an issue. It causeth the belly to be laxatiue, and openeth the matrice, if it be vsed with Amyl powder. Being taken in drink with the yolk of an egg, it prouoketh womens fleurs. Applied in a liniment with the floure of Feni-greece, it easeth the pains of the gout: it clenseth the leprosie, and foul wild scab: it killeth ring-worms and fell tectars: it scoureth away freckles, and such flecks as disfaue the face: likewise it cureth the parts stung with venomous serpents, or bitten with mad dogs. Moreouer, this juice of the wild Fig-tree, applied vnto the teeth with a lock of wooll, allaieth their ache: so it doth also if it be put into them that be worne-eaten and hollow. The tender yong branches, together with the leaues, if they be mingled with Eruiue, are good against the poison of venomous sea-fishes. But then according to some Physitians, there must be wine added to this receipt. The said tender branches being put into the pot with Boeuf, and so boiled together, saue much fewell, for lesse fire by far will serue to seeth the meat. The green figs of this wild fig-tree brought into a liniment, do mollifie and discusse the kings euill, and all other tumors and apostemes. And in some measure the leaues also haue the same operation: Chuse the softest and tenderest of them, let them be stamped and mixed with vineger, they will cure running scalls and sores, ease bloody fals and chilblanes, yea, and scour away filthy scurfe or dandriffe. The said green figs, together with the leaues, incorporat with hony, doe cure the wens or exulcerat bunches, which yeeld matter out of them resembling hony: likewise they heale the biting of mad dogs. The greene and fresh figs newly gathered, if they be laied too with wine, doe heale filthy eating vlcers: and mixed with Poppie leaues, they draw and fetch away broken bones out of the body. The greene Figs of the wild Fig-tree, doe scatter and discusse inflammations, onely by their perfume, if they be burnt. They are a counterpoison, in case one haue drunk Bulls blood, or cerusse: the same also put away the danger of milk cradled within the stomacke, if they be taken in drinke. Likewise, soddin in water, and reduced into a liniment, they cure the risings & tumors behind the eares. The tender branches & the least green Figs of this wild Fig-tree, being taken in wine, are very good for the sting of Scorpions: with this charge, that the milky juice thereof be instilled into the wound, and the leaues laied aloft. The same also serueth for the hardi-shrew. The ashes of the small tendrons beeing burnt, duely applied,

A applied, bring the Vvula againe into the right place, and assuage the paine therof. The ashes of the very tree it selfe, being incorporat with honey, do cure the rhagadies, fissures, and chaps in the feet, or elsewhere. The root boiled in wine, easeth the tooth-ache. The winter wild fig-tree, (which beareth fruit late in the yere) if it be soddin in vineger, and so stamped and brought into a liniment, is singular to kill tertars and wild scals. But to prepare this medicine, the wood & boughs of the tree must be despoiled of the barke, and then shauen or scraped so fine as any powder or saw dust, that they may be reduced into an ointment. Yet there is one medicine more belonging to the wild fig-tree, which is admirable, and may make a man to wonder at it: if a yong boy not yet vndergrowne nor 14. yeares of age, break a branch or bough of the wild fig-tree, and with his teeth do pill the said branch, and fetch off the rind before it haue gathered any downe or mosse about it; then the marrow or pith within the said branch, if it be taken forth and tied fast about one that hath the kings euill (so that all this be done in a morning before the Sun-rising) doth repercusse and smite back the said disease, so that it shall not arise and grow. Moreouer, this wild fig-tree hath one singular property besides, That if a collar made of the branches thereof be but about a bulls neck, it will make him perforce to stand stil and not to stir, how fell and fierce soeuer he be otherwise; such a wonderful vertue it hath to bridle and keep vnder his courage.

Moreouer, since that the Greeks do terme this wild fig-tree in their language Erineos, which putteth me in mind of a certain herb called Erineos also in their tongue, I cannot wil nor chuse but for affinity and neighbor-hood sake, describe the same in this place, and set downe the properties and vertues thereof. An herb it is, one good handfull high, rising vp commonly with siue or six little stalks or branches, much like vnto Basil: bearing a white floure, a black seed, and the same small: which seed beaten to powder and medled with the best Atticke honey, cureth the rheume which falleth into the eies and causeth them to weep and water continually: as touching the herb it selfe, if it be applied or vsed accordingly, with a little sal-nitre put thereto, it is a passing good remedy for the pain of the eares. The leaues are a counterpoison.

To come now to the Plum-tree: the leaues thereof boiled in wine, are good for the infirmities incident to the amigdales, the gums, and the Vvula, in case the mouth be oftentimes washed with a collution made of their decoction. Plums themselves make the body soluble, & very commodious they are to the stomack; but this benefit continueth but a small while.

D Peaches are much better than Plums; and so is their iuice, principally if it be drawn in wine or vineger: and verily for a fruit, there is not in the world any more harmlesse than it. You shall not see a fruit againe, to haue lesse smell, & more juice within than the Peach; and yet as liquid as it is, it causeth them to be dry and thirsty who eat therof. The leaues of the Peach-tree, punned and applied, do stanch bleeding. The kernels of Peaches, incorporat in vineger and oile to a liniment, and laied too as a frontall, allay the head-ache.

Bulleis, Skegs, and Stone (which are the berries, as it were, or fruit of the wild Plum tree) or the very barke and rind growing to the root, boiled in one hemine or smal pint of some hard and crabbed wine, vntill a third part only remaine, do yeeld a decoction effectuall to allay the pains of the cholick, and to stop the flux of the belly: of this liquor, a cyath is a sufficient draught to be taken at a time. As well in this wild kind as in planted Plum trees of the hortyard, there is to be found a certain skinny gum, in Greek called Lichen, which hath a wonderful operation to cure the rhagadies or chaps, yea, and the swelling piles or knobs that appeare in the fundament.

In Egypt and Cypres both, there groweth the Sycomore, which is a kind by it selfe between a fig tree and a mulberry tree, as I haue before said; the fruit or berries whereof be full of liquor, which so soon as the vppermost rind or pill only is pared away, appeareth in great abundance: cut and gash them deeper in, they seeme drie, after a wonderfull and incredible manner. This iuice issuing out of them, is a singular defenatiue against the poison of Serpents: a wholesome medicine for the bloody flux; and * a notable carminatiue to discusse and resoluue pushes, biles, and al impostumations. It fondereth and healeth vp wounds, it allaieth head-ach, and assuageth the wens or pains of the eares. Such also as be splentick or diseased in the spleene, finde much ease and comfort by drinking thereof. Moreouer, a liniment made therewith, is good to chaufe and heat those, who chill and quake for extremity of cold: howbeit, last it will not, but breed worms very quickly. Certes, the iuice of our mulberries which we haue, is of no lesse operation and effect; for if it be taken in wine, it is a singular counterpoison for them who haue drunke ei-

The like is
Emplastrum
diuonense:
commended
by Galen, and
described by
Agineta.

*Tingunt capil-
lum: for the
black colour
was in most
request in
those daies.

* Lib. 16, ca. 25.
* Diamorbum, or
the compound
syr. up of mul-
berries.

* Pandus & du-
stum.

* Somewhat
under two
wine quarts
with vs.

ther the iuice of Aconit, [i. Libard-bane] or swallowed a venomous spider. The same doth loo-
sen the belly, euacuat slimy and roping sicame, and expelleth the broad wormes and other such
vermin ingendred in the belly. Of the like efficacy is the bark, if it be puluerized and so taken
in drink. The leaues boyled in rain water, together with the barke of the blacke fig-tree and the
vine, do make a lauature or water to * colour the haire [blacke.] The iuice of mulberries doth
work speedily, and prouoke to the siege; and the very fruit or mulberry it selfe, for the present is
comfortable to the stomacke; it cooleth for the time, but bringeth thirst with it. If a man eat
them alone, or last, and lay no other meat vpon them, they swell in the stomack and be very flat-
tuous. The iuice drawn out of vnripe mulberries, are of vertue to bind the belly. In sum, there be
strange and wonderfull properties worthy to be obserued in this tree, which seemeth to haue
some sense and vnderstanding, as if it were a liuing and sensible creature, whereof I haue already
written more at large in the description of it, and the nature thereof. There is a notable * com-
position made of mulberries, respectiue to the mouth and throat, called thereupon Panchrestos
Stomatice, and by another name, Arteriace: the receipt and making whereof, is in this manner; H
Recipe, of the iuice drawne out of Mulberries, three sextars, seeth it ouer a gentle and soft fire [or
rather let it stew in balneo Mariæ] vntil it be reduced to the consistence of hony: afterwards put
thereto of veruice made of dried grapes, the weight of two * deniers or drams; of myrrhe, the
poile of one denier, of saffron likewise, one dram or denier. Let these ingredients (I say) be first
beaten to powder (such I mean as need puluerising) and so mingle them together with the fore-
said decoction, and put it vp for your vse. A better and more pleasant medicine there is not, for
the mouth, the windpipe, the vula and the stomack. There is another way of making it in this
fort, Take of the iuice aforesaid, the quantity of * two measures called sextars, of Atticke hony
of one sextar, seeth them together as before. Many maruels besides are reported of this tree, of
which I will giue you a little tast: Spie where the little mulberries that shall be are newly knit,
to wit, when the tree first buddeth and before the leaues be fully out; gather their yong knots of
the fruit toward, which the Greeks call Ricinos, but in any case with the left hand; take heed al-
so that they touch not the ground, howsoeuer you do: and if when you haue obserued these cir-
cumstances, you weare them about your wrists, hang them about your necke, or otherwise tie
them about you, be sure they will stanch blood, whether it gush downe from your nostrils, flow
out of a wound, run out of the mouth, or issue by the hemorrhoid veins. And in truth, folke vse
to keepe these little buds or knots very carefully for this purpose. The same vertue and operati-
on the branches haue (as they say) but then they must be broken from the tree at the full of the
moon, when they begin to knit & giue some hope of fruit: & if the same touch nor the ground,
then they haue a speciall property respectiue vnto women, for to restrain the immoderat flux of
their monthly terms, being tied or fastened to their arms. And it is thought, that they work this
effect, if the woman her selfe do gather them at any time whensoeuer: provided alwaies, that the
branch in any wise touch not the ground, and that she weare it fast about her in manner afore-
said. The leaues of the mulberry tree stamped greene, or beeing dry and boyled, serue in a cata-
plasmie to be applied vnto those places which are stung by serpents: the same good they do al-
so, if they be taken in drink. The iuice of the bark which grew to the root, if it be drunk either in
wine or oxycrat [i. vinegar and water together] is singular against the pricke of scorpions. But
here I must set downe the compositions that our antients deuised and made of mulberries: first
and foremost, they tooke a quantity of the iuice pressed out of mulberries, as well ripe as vnripe,
which they sod in a brasse pan, vnto the consistence or thickenesse of honey. Some vsed to put
thereunto, myrrh and Cyresse, setting all to frie and take their fermentation in the sun, vntil it
grew to hardnesse in the foresaid vessel, stirring it thrice a day with a spatule: This was the sto-
maticall medicine of the antients, which they vsed also in healing & skinning vp wounds. And
yet there was another kind made after this sort: they pressed forth the iuice of the vnripe mul-
berries, but first they let the said fruit to be very wel dried, & this serued them in lieu of sauce,
which gaue an excellent tast to their other meats. In physick also, they imploied it much, name-
ly, about corrosiue and eating vlcers, and for to euacuat tough sicame out of the brest: they vsed
it also as need required, as an astringiue, to corroborat the noble and principall parts within the
body. It stood them also in good stead for collutions, to wash the teeth withall. Moreouer, a
third kind of iuice they had, which they drew from the leaues and roots after they were wel boi-
led: and with this iuice & oile together, they were wont to annoint any burnt or scalded place
of

A of the body: for which purpose, the leaues also they applied alone without more ado. As touch-
ing the root of the Mulberry tree, it yeeldeth in haruest time (by way of incision) an excellent
iuice for the tooth-ach, for biles, and impostumes, especially such as are growne to suppuration
and be at hand to break: the same purgeth the belly. The leaues of the Mulberry tree infused &
foked in vrine, fetch off the haire from those skins which are to be couried and dressed.

Cherries loosen the belly, and be hurtfull to the stomack; yet, if they be hanged vp and dried,
they do bind the belly, and prouoke vrine. I find a notable experiment in some authors, That if
a man eat Chery-stones and all in a morning, new gathered from the tree with the dew vpon
them, they will purge so effectually, that he shall find himselfe cleane rid from the gout of the
feet, if he were diseased that way.

B Medlars, all of them, except those great ones called Setania (which indeed are more like to
Apples) do close vp the stomack, and bind the belly. In like manner Sorueises, if they be dried;
for being fresh and new gathered, they be good to scoure and send excrements speedily out of
the stomacke and belly both.

CHAP. XVIII.

¶ Of Pine-nuts, or Pine-apples: of Almonds, Filberds, and Hazell-nuts: of Wal-nuts, Fi-
sticks, Chestnuts, Carobs, and Corniols. Of the fruit of the Arbut or Straw-
berry tree, and the Bay.

C The Pine apples or nuts, which haue rosin in them, if they be lightly bruised, and then sod-
den to the half in water, with this proportion, to wit, one sextar of water to euery such ap-
ple, do yeeld a decoction singular good for such as reach and spit vp blood; so that the pa-
tient drink two cyaths thereof at one time. The decoction likewise of the Pine-tree barke boi-
led in wine, is giuen to drink for the pains and torments in the belly. The kernels of the Pine-
nuts quench thirst; they pacifie and stil the frettings and gnawings of the stomack: they rectifie
the corrupt and putrid humors there settled and bedded: they strengthen weak bodies in man-
ner of a restorative, and are right good & agreeable to the reins and bladder: howbeit they seem
to exasperat the throat, & to encrease a cough. Being taken inwardly, either in water, wine, sweet
cuit, or the decoction of * dates or tamarinds, they purge cholerick humors: when the gnawing
gripes within the stomack be exceeding violent and painfull, it is good to mix therewith Cu-
mber seed and the iuice of Pourcellane: likewise in case either bladder or kidnies be exulce-
rat: for diureticall they be also, and prouoke vrine.

Touching the bitter Almond tree, the decoction of the roots thereof, doth supple the skin
and lay it euen and smooth without wrinkles; it imbeliseth the visage with a fresh, lively, and
cheerfull colour. The bitter Almonds themselves bring folk to sleep, and get them appetite to
their meat: they moue vrine, and stir the ordinary course of womens monethly fleurs: they serue
in a liniment for the head-ach, especially in feuers; but if the said head-ach come by occasion of
drunkenesse or a surfet of wine, they would be applied with vinegar, oile of rose, and a sextar of
water. They haue a property to stanch bleeding, mixed with Amylfloure and mints. They are
good in a lethargy, and the falling sicknesse, if the head be therewith annointed all ouer. They
cure the angry night-foes, called chilblanes and bloody-falls: applied with cold wine, they cure
vicers which grow to putrifaction; and with hony, the bitings of mad dogs: they take away the
scales and dandruff about the face, if so be there haue bin vsed before, some conuenient fomen-
tation to prepare the skin for this medicine. An Almond milk drawn with water, and taken as a
drinke, easeth the pains of the liuer and kidnies. Bitter Almonds reduced into a loch with Ter-
pentine, worke the same effect, so that the Patient be often licking thereof. For those who be
troubled with the stone and grauell, with difficultie also of pissing, they be very effectually if
they be taken with sweet wine cuit: also beaten with honied water, they be singular to cleanse the
skin, and make it look neat and faire. Reduced into the form of a loch with hony, they be whol-
some for the liuer, good to ripen and dispatch a cough, & excellent for to mitigat the paines of
the cholique: and this electuarie must bee taken, to the quantity of one hazell nut at a time,
with a little sauge put thereto. It is said, that our lusty tosse-pots and swil-bols, if they eat foure
or fise bitter almonds before they sit them down to drink, shall beare their liquor well, and ne-
uer be drunke, quaffe they and poure they downe as much as they wil: also, that if foxes chance

Balanorum de-
coctio.

and itching, if the body be annointed therewith every night. Next vnto this, the other kinds are to be ranged according to the validitie of their operation. As for the Lawrell Alexandrica or Idæa, if a woman in trauell of child-birth take three deniers weight of the root, and drinke the same in three cyaths of sweet wine, she shall be quickly deliuered and brought to bed: the same drink sendeth forth the after-birth, and prouoketh womens monthly terms.

Daphnoides, or the wild Lawrell (or call it by any other of those names before rehearsed) hath many good vertues: it purgeth the belly, if you take the leafe either green or drie, to the weight of three drams with salt, in hydromel or honyed water: being chewed, it draweth downe flegmatick and watery humors. The leafe also moueth to vomit, and is offensive to the stomack. The berries likewise be purgatiue, if a man take five or ten of them at once.

CHAP. IX.

¶ Of the tame or gentle Myrtle tree planted. Of Myrtidannum, and the wilde Myrtle.

OF garden Myrtles, the white is not so medicinable as the black: the fruit or berries of the Myrtle, help those that reach vp blood: taken with wine, they put by the danger of venomous mushrooms: chew them in your mouth, your breath will be the sweeter for it two daies after. It appeareth by the Poet Menander, that the good-fellows Synaristensæ were wont to eat Myrtle berries: the weight of one denier in wine, is good for the bloody flux. If they haue a little siuering or waulm ouer the fire in wine, they make a good water or liquor to cure vntoward vlcers to heale, especially such as be in the extreame parts of the body. Of them and barley groats, there is made a cataplasme for bleered eies: for the fainting also and trembling of the heart, being applied to the left pap or brea st. In like manner, the same being vsed with pure vndelaid wine, is singular for the prick of scorpions: for the infirmities of the bladder, the head-ach, and the apostemations betweene the angle of the eies and the nose, if they be taken before they yeeld filthy matter: and so they cure other tumors or swellings: and if their pepins or kernels be taken forth, and then incorporat with old wine, they be singular for the small pocks and meazles. The juice of Myrtle berries bindeth the belly, but prouoketh vrine. A liniment also is made thereof with wax, for the said pox and meazles: also against the sting of the venomous spiders Phalangia. The said juice doth colour the haire blacke. Of the same Myrtle there is an oile made, more lenitiue and mild than the iuice or liquor aboue-named: & yet there is a wine of Myrtles more kind & gentle than it, which wil neuer ouerturn the brain or make one drunk. The same, if it haue lien and be stale, bindeth the belly and staicth a laske: it strengtheneth the stomack also, and represseth vomits: it assuageth the griping pains in the guts, and restoreth appetite to meat: the pouder of drie Myrtle leaues, restraineth sweats, if the body be strewed therewith, though it were in a feuer. The same pouder is good for the feebleness of the stomack, and the flux from thence proceeding: it reduceth the matrice into the right place, when it beareth down out of the body: it cureth the infirmities of the seat; healeth running scalls and vlcers; wariseth S. Antonies fire, and the shingles, being vsed thereto in some fomentation; retaineth and staicth the haire ready to shed; scoureth away dandruffe; drieth vp wheals, pocks, and meazles; and last of all skinneth burnes and scaldings. The pouder entrencheth into those vnguinous or oleous plasters which the Greeks call Liparas. And such a kind of plaster in like manner as the oyle of these Myrtle berries, is most effectually in those sores which light vpon moist parts, as for example the mouth and the matrice. The leaues in substance, beaten to pouder and tempered with wine, are a counterpoison against venomous mushrooms; but incorporat with wax into a liniment, they do ease the gout of any joints, and driue back risings and impostumations. The same leaues boiled in wine, are giuen to drink for the bloody flux, and the drop sicke. VVhen they be dried and brought into pouder, they serue to cast and strew vpon vlcers, also to restrain any bleeding. They scoure away freckles, and such like spots of the skin: they heale the rising, overgrowing, and parting of the skin about the naile roots; also whitflaws, chilblanes, piles, & swelling bigs in the fundament; the accidents befalling to the cods; filthy maligne and morimall vlcers; and last of all, burnes (applied in manner of a cerot.) For the ears running with filthy matter, there is good vse of the leaues burnt; also of their iuice and decoction. The same are likewise burned, to serue for certain antidots or counterpoisons. In like manner, to the said purpose the tender sprigs of the Myrtle with the floure vpon them, are gathered and calcined within an ouen,

A ouen, in a new earthen pot, well couered and close luted: after which they be reduced into pouder, and mixed with wine. The ashes of the leaues burnt, healeth burnes. To keepe the share or groine from swelling, although there be an vlcere there, it is sufficient, if the party haue about him a shoot or branch only of the Myrtle, prouided alwaies, that it touched neither yron nor the earth.

As touching Myrtidarum, how it is made I haue shewed already. Applied vnto the matrice or natural parts of a woman either by way of fomentation or liniment, it doth much good. And much better, if it be made with the bark, leafe, and berry of the Myrtle. Moreouer, of the softest leaues braied and stamped in a mortar, there is a iuice pressed forth, by pouring green wine by little and little among, and otherwhiles rainé water: which is vsed much for the vlcers and sores of mouth, seat, matrice, and belly: to dye the haire black: to wash and bath the arm-holes with: to scoure away spots and freckles: and in one word, when and wherefoeuer there is need of assistance.

* Alarum persusione.

The wilde Myrtle or Oxymyr sine, called also Chamæmyrsine, differeth from the ciuill and gentle Myrtle, in the redness of the berries, and the smal growth. The root is highly esteemed: for boiled in wine, and so taken in drink, it cureth the paine in the raines, the difficulty of vrine, especially when it is thick, and of a strong sauer. The jaundise also it helpeth, and cleanseth the matrice, if it be brought into pouder, and mixed with wine. The yong and tender buds eaten after the manner of Sperage crops with meat, first roasted in the embers; the seed likewise taken in wine, oile, or vinegar, break the stone. The same seed stamped and drawne with vinegar and oyle rosat, allaieth the head-ach; but in drink it cureth the jaundise. Cassor called Oxymyr sine (with the sharp prickie leaues like the Myrtle; and wherewith beesomes be made) by the name of Rufcus, and saith it hath the same properties. Thus much for planted trees, and their medicinal vertues: proceed we now forward to the wild.



THE TWENTY FOVRTH BOOK OF THE HISTORIE OF NATVRE,

WRITTEN BY C. PLINIVS

SECVNDVS.

The Proeme.

CHAP. I.

¶ Medicinable vertues obserued in wild trees.



Nature, that sacred and blessed mother of all things, willing and desirous that man, whom she loueth so well, should find every place stored with proper and conuenient remedies for all maladies incident vnto him; hath so disposed of her workes, and taken that order, that the rough woods and forests, euen the most hideous parts of the earth, and fearfull to see vnto, be not without their plants medicinable. Nay, the very wilds and defarts are enriched and furnished therewith: in somuch, as in euery coast and corner of the world there may be obserued both sympathies and antipathies (I meane those naturall combinations and contrarieties in those her creatures.) From whence proceed the greatest miracles which are to bee scene in this round Fabricke and admirable frame.

frame. For first and formost, the Oke and the oliue tree beare such mutual rancor and malice (as it were) and are so stiffely bent to war one with another, that if a man replant one of these trees in the trench or hole from whence the other was taken vp, it wil surely die. Also, if an Oke be set neare vnto a walnut-tree, it wil not liue. The Colewort and the Vine hate one another to the very death; in such sort, that if a Vine stand neare vnto it, a man shall sensibly perceiue the same to shrinke away and recule backward from it: and yet this wort, which maketh the Vine thus to retire and flie, if it chance to grow ouer-against Origan or Cyclamine, will soone wither and die. Moreouer, it is commonly said, That trees in the Forrest fully grown, which haue stood many a yeare, and namely such as are ready to be fallen and laid along for timber, proue harder to be hewed, and sooner wax dry, if a man touch them with his hand before hee set the edge of the axe to their butt. And some say, that pack-horses, asses, and other labouring beasts which haue Apples and such like fruit aloft, wil quickly shrinke and complaine vnder their burden, yea, & presently run all to sweat (carry they but a very few to speak of) vnlesse the said fruit, wherewith they are to be charged, be first shewed vnto them. Asses finde great contentment and good by feeding vpon Fenel-geant or Ferula plants: and yet to horses, garrons, & other beasts of cariage and draught, they are present poison, if they eat them: which is the cause that the Ass is a beast consecrated vnto the god *Bacchus*, as well as the foresaid plant Ferula. Ouer and besides (see the admirable operation in Nature) the very insensible and liuellesse creatures, yea, the least that be, meet euery one of them with some contrary thing or other, which is their bane and poison: for as our cooks know well enough, the inner bark of the Linden tree shued thin into broad flakes and fine boulded floure together, doe drink and suck vp the salt of viands, ouermuch powdered, and make it fresh again. Likewise, salt giueth a good relish to any meat that is ouer sweet, and tempereth those that haue a luscious and wallowish tast. If water be nitrous, brackish, & bitter, put some fried barley meale into it, within two houres and lesse it will be so well amended and sweet, that a man may drink thereof: and this is the reason that the said Barley meale is put ordinarily in those strainers and bags through which wines do passe, that thereby they may be refined and drawn the sooner. Of the same operation also and effect there is a kind of chalke in the Island of Rhodes: and our clay here in Italy will do as much. Thus you see what enmity & discord there is in some things. Contrariwise, we may obserue in others, how wonderfully they accord and agree together: for pitch will dissolue, spread, and be drawne out with oile, being both as they are of a fatty nature; oile alone will incorporat and mingle well with lime; & they haue water, the one as well as the other. Gums are sooner dissolued and more easily tempered with vinegar than with any thing els; & ink with water: besides an infinit number of other such, that I shall haue occasion to write of continually in their due places. And indeed, this is the very ground and foundation of all our Physick. For (to say a truth) Nature ordained at the first such things and none but such, for to be the remedies of our diseases, which we feed & liue daily vpon; euen those which are soon found and as soon prepared, which be ready at hand, common euery where, and cost vs little or nothing at all. But afterwards the world grew to be so full of deceit and couenage, that some fine wits and nimble heads deuised to set vp Apothecary shops, promising and bearing vs in hand, that euery man might buy his life and health there for money. Then anon a sort of compositions, mixtures, and confections were set on foot; then there was no talk but of strange and intricat receipts, and these were bruited abroad for the only medicines, of wonderfull and vnspcakable operations. So that now adaies wee vse no other drugs but those that come from Arabia and India. And if a man aile neuer so little, or haue the least push or wheale about him, he must haue some costly Physick forsooth for it: & a plaster that came from as far as the red sea: whereas in truth, the right remedies appropriat for euery maladie, be no other than such as the poorest man that is feedeth vpon euery night ordinarily at his supper. But if we went no farther than to the garden for medicines, and sought after herbs, shrubs, and plants only, for to cure our sicknesse, or maintain our health, certes there were not a baser occupation in the world than the profession of Physick, and Physitians would be nought set by: but will you haue the truth? To this passe are we come, the old world we haue bidden farewell vnto: the ancient manners and rites of Rome citie are dead and gone: our state is growne so much in greatnesse, as there is no goodnesse left. Our victories and conquests be these, and nothing else, which haue vanquished & subdued vs: for subiect we must acknowledge our selues to strangers and forraine Nations, so long as Physicke (one of their Arts) is able to command our commanders,

A ders, and ouerrule our Emperors. But the discourse of this matter in more ample manner, I will referue to some other time and place.

CHAP. II.

¶ Of Lotos.

As touching the herbe * Lotos, the Egyptian plant likewise of that name: as also, of another tree about the Syrtis so called, I haue written sufficiently in their due places: as for this Lotos, which our countrymen call in Latine the Greekeish Bean, hath a property for to bind and knit the flux of the belly, with the fruit or berries which it beareth. The shauings or scrapings of the wood thereof, boiled in wine, and so taken inwardly, cure the bloody flux and exulceration of the guts; represseth the immoderat flowing of womens moneths; help the dizziness and swimming of the braine; and those who be subiect to the falling sicknes: the same decoction also * keepeth the haire from shedding, if the place be bathed therewith. But wonderfull it is, that these small shauings should be so bitter, as nothing more, when the fruit itself is as sweet as any other. Moreouer, of the fine dust sawed or filed from this wood, sodden in Myrtle water, then kneaded or wrought into past, & so reduced into seuerall trochisks, there is a soueraigne medicine made for the bloody flux: if the patient drinke the weight of one Victoriat or halfe dram of these troches in three cyaths of water.

* Called otherwife Colocasia, and the Egyptian Beans.

* Cohibent capillum, Dioscorid. hath said, i. Rufus, i. Colouth, them yellow.

CHAP. III.

¶ Of Mast.

Acornes or Mast of the Oke, beaten to powder, & incorporat with Hogs lard salted, heale all those hard and swelling cankerous vlcers, which they call in Greeke Cacoethe. In all these trees bearing Mast, the very substance of the wood is more forcible than the fruit; the outward bark more than the wood; and the inner rind or tunicle vnder it, more than the bark or all the rest. This membrane or pellicle if it be boiled, is singular for the flux of the stomach, proceeding of weaknesse. The very Mast or Acorne itselfe reduced into a liniment and applied, staith the bloody flux: and the same resisteth the venom of serpents stings, restraineth rheums, and catarrhs, and namely, that flux of humors which causeth apostemations. As well the leaues, the mast or berries of this tree, as the bark or juice drawn from it, after boiling, are excellent against the poisons called in Greeke Toxica. The barke sodden and brought into a liniment with Cow-milk, is very good to be applied vnto the place where serpents haue bitten or stung; it is giuen also in wine for the bloody flux: of the same vertue & efficacy is the holm-oke

CHAP. IIII.

¶ Of the [Scarlet] graine of Holme-oke: of Galls and Missesto: of certaine little balls growing vpon the Oke: of Mast: of the root of * Cerrus: and of Corke.

The * Scarlet graine growing vpon the Oke-holm, is very good to be laid to fresh wounds with vinegar. It is applied with water for the flux of watery humors vnto the eies: & dropped likewise into them when they be bloud-shotten. Now there is a kind of it growing commonly in the region of Attica and throughout Natolia, which very quickly turneth to be a grub or Magot (wherupon it is called *Scolecion*) and is rejected, as being of no worth. Many more sorts there be of it, whereof the chiefe and principall I haue shewed already.

As touching the Gal-nuts, I haue likewise made of it as many kinds: for some be solid and massie, others full of holes, as if they were bored through. You shall haue of them white, and black: some great, & others small: but how different soeuer they be in substance, colour, or quantity, they be all of like nature. The best are those of Comagene. Galls are good to eat away the superfluous excrescences in the body. They serue very wel for the infirmities of the gums and vula; for the cankers & exulcerations breeding in the mouth. Being first burnt, & then quenched in wine, they are singular for the fluxes occasioned by a feeble stomach. Applied in maner of a liniment, they help the bloody flux. Incorporat in hony, they cure whitflaws, risings, & partings of the flesh and skin about the naile roots; the roughnesse of the nailes; the running scales and

* The great Holm-Oke. * Coccum Illic. our Kermes or Kutcheneel, as some thinke.

reth an inueterat cough, shortnesse, and difficultie of winde, ruptures, crampes, and convulsions. G Outwardly applied, it is singular for the Sciatica, pleurise, or pains of the side, angry biles, and fellons. It is good also to be vsed, in case the flesh (corrupted by meanes of corrosiue vlcers, as wolues and such other) is departed and eaten from the bone: moreover, for the wens called Scrophules or the kings euill: the knots and nodosities growing vpon the ioints: and the tooth-ach: it serueth also in a liniment with hony for to annoint scald heads. With oile of Roses or with Nard, it is good to be infused or dropped into ears that run with matter: the very perfume alone or smell thereof is good to raise them who are taken with the epilepsie or falling sicknesse: also to recouer women, lying as it were in a trance or dead, vpon a fit of the mother: & to bring them again who are gon in a swoone. If a woman fall to trauell before her time, it is good to fetch out that vntimely fruit of hers (if it be loth to come away) either by way of cataplasme or suffumigation. The same effect it hath, if the branches or small roots of Ellebore be well annointed therewith, and so put up as a pessary. The smoke of it frying in the fire (as I said before) driueth serpents away: and more than so, serpents will not come neere to them that are besmeared with Galbanum. And say that one be stricken with a scorpion, a plaster of Galbanum will heale the wound. If a woman haue bin long in labor of childbirth, and cannot be deliuered, let her drinke in one cyath of wine, as much Galbanum as the quantity of a Bean, she shal fall to her busines and be deliuered anon. The same is a good medicine to reduce the mother into the right place, if it be vnsetled or turned. If Galbanum be taken in wine with Myrrhe, it sendeth out the dead infant in the mothers womb. Also with Myrrh and * wine, it is good against all poisons, and especially those which be called Toxica. Incorporat Galbanum with oile and * Spondylium together, it will kill any serpents, if they be but touched therewith. Howbeit, there is an opinion of Galbanum, that * in difficultie of vrine it is not good to be vsed.

* Wine. Rather
aceto, i. vinegar
after Dioscor.
* Cow-parfnepe
or Madnep.
* Dioscorides
reporteth the
contrary.

CHAP. VI.

¶ Of Gum Ammoniack: of Storax: Spondylium: Spagnos: Terebint: Chamæpitys: of Pituy-
sa: of Rosius: of the Pitch tree: and the Lentiske.

Since we are fallen into the mention of Gums, it will not be amisse to treat of Ammoniack; being as it is so like in nature (as I haue said) to Galbanum: for it hath vertue to mollifie, to heat, discusse, and dissolue. Vsed in collyries, it is a proper medicine to clarify the sight: and serueth wel to take away the itch, the spots or cicatrices, the pin and web also of the eyes. It K allaieth the tooth-ach, but more effectually, if it be set a burning, & the fume receiued into the mouth. Taken in drinke, it helpeth those who hardly fetch and deliuer their winde. It cureth the pleurise, Peripnewmony or inflammation of the lungs, the infirmities of the bladder, pissing of blood, the swelled spleen, and the Sciatica. And in that manner it easeth the belly, and maketh it soluble. Boiled with the like weight of pitch or wax and oile rosat together, and so reduced into an ointment, it is good for all gouts, and especially that which lieth in the feet. It ripeneth the biles called Pani, if it be applied to them with honey: and fetcheth away any corns by the roots. In which sort it doth soften any hardnesse. Incorporat with vinegar and Cyprian wax, or els with oile rosat, it maketh an excellent plaster for to mollifie the hard spleen. Moreover, if it be reduced into an ointment with vinegar, oile, & a little sal-nitre, it is singular to annoint those L that haue a lassitude or wearinesse vpon them.

Touching Storax and the nature thereof, I haue said enough in my Treatise of strange and forraine trees. But ouer and aboue the qualities or properties before required, I take that for the best Storax, which is fatest, pure, and cleane, and whereof the pieces or fragments do break white. This drug cureth the cough, the sorenesse of the throat, and the accidents of the breast: it openeth the obstructions of the matrice, & mollifieth the hardnes therof. Whether it be taken inwardly in drinke, or outwardly applied, it prouoketh womens fleurs, & moueth to the siege. I read in some authors, that if one drinke Storax Calamita, in small quantity, it will procure gladnesse and mirth of heart: but if it be taken in greater quantity, it breedeth heauinesse of the mind. Instilled or poured into the ears, it riddeth away all the singing therein: and in a liniment it resoluth the wens called the Kings euill, and the nodosities of the sinews. Soueraign it is against those poisons which hurt by meanes of their coldnesse, and therefore it is good for them that haue drunk the juice of Hemlock.

Likewise

A Likewise of Spondylium, a kind of wild Parsnep or Madnep, I haue spoken thereof heretofore, together with Storax. An embrochation made of it, to be infused vpon the head, is excellent for such as be in a frensie or lethargy: also to cure the inueterat pains of the head. Taken in drinke with old oile, it helpeth the infirmities of the liuer, the jaundise, the falling sicknesse, the straitnesse of breath (whereby one cannot take his winde but sitting vpright) and the rising or suffocation of the mother; in which cases, a suffumigation thereof is good. This Spondylium is effectual to mollifie the belly, and make the body soluble. Reduced into a liniment with rue, it serueth fitly to be applied vnto vlcers that spread and eat as they go. The juice of the floures is of great effect, if it be poured into the ears that run with filthy matter: but when this juice is a pressing or drawing forth, it had need to be kept well couered, for feare of flies and such like, B which are very greedy thereof, and loue a life to settle vpon it. The root of Spondylium, or a piece therof scraped, if it be put in maner of a tent into a fistula, eateth away all the hardnes and callositie thereof. Being dropped into the ears, together with the juice, it is exceeding good for them. The root giuen alone in substance, cureth the jaundise, the infirmities of the liuer & matrice. If the head be all ouer annointed therewith, the haire will curl and frizle.

Concerning the sweet Mosse, called of the Greeks * Sphagnos, Sphacos, or Bryon, growing (as I haue shewed before) in France, it is good for the naturall parts of women to sit ouer the decoction of it, in manner of a bath: likewise if it be mingled with cresses, and so stamped together in salt water, it serueth well to be applied as a cataplasme to the knees and thighs, for any tumors or swellings in those parts. Taken in wine with dry per-rofin, it causeth one most speedily to make water. Stamped with Iuniper, and drunk with wine, it doth euacuat the aquosities in the dropsie.

The leaues and the root of the Terebint tree, applied in form of a cataplasme, are good for the collection of humors to an impostumation. A decoction made with them, doth comfort and fortifie the stomach. In case of head-ache, of stopping and difficultie of vrine, it is passing good to drinke the seed or grains of the Terebint tree in wine. The same gently easeth and softneth the belly; it prouoketh also carnal lust. The leaues of the * Pitch tree & * Larch tree bruised and sodden in vinegar, do ease the tooth-ache, if the mouth be washed with the decoction. The ashes made of their barks, skin the places that be chafed, fretted, and galled betweene the thighs, and heale any burn or scald. Taken in drinke, they bind the belly, but open the passages of the vrin. A perfume or suffumigation therof, doth settle the matrice, when it is loose and out D of the right place. But to write more distinctly of these two trees; the leaues of the Pitch tree haue a particular property respectiue to the liuer, and the infirmities thereof; if one take a dram weight of them and drinke it in mead and honied water. It is well known and resoluend vpon, that to take the aire of those woods and forests only where these trees be cut, lanced, and scraped, for to draw pitch and rosin out of them, is without all comparison the best course which they can take who either be in a consumption of the lungs, or after some long and languishing sicknes, haue much ado to recouer their strength. Certes, such an aire is far better, than either to make a long voiage by sea into * Egypt, or to goe among the cottages in summer time for to drinke new milk comming of the fresh and green grasse of the mountains.

E As for Chamæpitys, it is named in Latine by some Abiga, for that it causeth women to slip their conception beforetime: of others, *Terra terre* [i. ground Frankincense:] this herb putteth forth branches a cubit long; and both in floure and savor resembleth the * Pine tree. A second kind there is of Chamæpitys, lower than the other, seeming as though it bended and stooped downward to the ground. There is also a third sort of the same odor that the rest, and therefore so named. This last Chamæpitys, riseth vp with a little stalk or stem of a finger thicknesse; it beareth rough, small slender, and white leaues, and it groweth commonly amongst rockes. All these three be herbs indeed, and no other, and should not be ranged among trees: yet for names sake, because they carry the denomination of Pitys [i. the Pitch-tree] I was induced the rather to treat of them in this present place, & to stay no longer. Soueraigne they bee all against the F pricks or stings of Scorpions: applied in manner of a liniment with dates and quinces, they be wholsome for the liuer: their decoction together with barley meale, is good for the infirmities of reins and bladder. Also the decoction of these hearbes boiled in water, helpeth the jaundise and the difficultie of vrine, if the Patient drinke thereof. The third kind last named, taken with hony, is singular against the poison of serpents: and in that maner only applied as a cataplasme,

R

it

* Picea.
* Larix.
It seems that
Pitys took
name, which is
the Pine, for
Picea; and
Larix, which is
the Pitch tree,
for Larix.

* I. Into a
more grosse
aire.

* or rather, the
Pitch tree.

it clenseth the matrice & natural parts of women. If one drink the same herbe, it will dissolue and remove the cluttered thick bloud within the body; it prouoketh sweat, if the body be therewith annointed; and it is especially good for the reins. Being reduced into pills, together with figs, it is passing wholsome for those that be in a dropic; for it purgeth the belly of waterish humors. If this herb be taken in wine to the weight of a victoriat piece of silver, i. halfe a Roman denier, it wariseth for euer the pain of the loins, and stoppeth the course of a new cough. Finally, if it be boiled in vinegar, and so taken in drink, it is said that it will presently expel the dead infant out of the mothers wombe.

* i. Spurges.

* In *balanistiv* lesse we read, *Cum Phenico-balanis*, i. a kind of Date, as some think *Tamarinds*.

* Which is thought to be ou Terpent-tine.

For the like cause and reason, I will do the herb *Pityusa* this honor as to write of it among trees, since that it seemeth by the name to come from the Pitch tree: this plant some do reckon among the * *Tithymals*: a kind of shrub it is, like vnto the Pitch tree, with a small floure, and the same of purple color. If one drink the decoction of the root, to the quantity of one hemina, it purgeth downward both fleame and choler: so doth a spoonfull of the seed therof, put vp into the body * by suppositories. The decoction of the leaues in vineger, doth cleanse the skin of dandruffe and scales: & if the decoction of rue be mingled therewith, it is singular for sore breasts, to appease the wrings and torments of the cholick, against the sting of serpents, and generally for to discusse and resolute all apostemations and bitches a breeding.

But to returne againe to our former trees; how *Rosine* is ingendred in them, of their seuerall kinds, and the countries where they grow, I haue shewed before, first in the treatise of wines, and afterwards in the discourse and histories of Trees. And to speak summarily of rosins, they may be diuided into two principal kinds; to wit, the dry and the liquid rosin. The dry is made of the Pine and the Pitch trees; the liquid commeth from the Terebinth, Larch, Lentisk, & Cypresse trees; for these beare rosin in Asia and Syria: & whereas some there be of opinion, That the rosins of the Pitch and Larch trees be all one, they be much deceived; for the Pitch tree yeeldeth a fatty rosin, and in maner of frankincense, vnctuous; but from the Larch tree there issueth * a subtill and thin liquor, running like to life hony, of a strong and rank vnpleasant smell. Physicians seldome vse any of these liquid Rosins, and neuer prescribe them but to be taken or supped off with an egge. As for that of the Larch tree, they giue it for the cough and exulceration of some noble parts within: neither is that per-rosin of the Pine tree much vsed: as for the rest, they be not of any vse vnlesse they be boiled. Touching the diners manners of boiling them, I haue shewed them sufficiently.

But if I should put a difference between these rosins according to the trees from whence they come, the right Terpentine indeed which the Terebinth yeeldeth, liketh and pleaseth me best, being of all others lightest and most odoriferous. If I should make choice of them in regard of the countries where they are found, certes they of Cypresse and Syria be best, and namely those that in colour resemble Attick hony: and for the Cyprian rosin, that which is of a more fleshie substance and drier consistence. Of the dry per-rosins, those are in most request, which be white, pure, transparent or cleare, quite through. In generall, those that come from trees growing vpon mountains, be preferred before them of the plains: also regarding the Northeast, rather than any other wind. For salues to heale wounds, as also for emollitiue plasters, rosins ought to be dissolved in oile: for drinks or potions, with bitter almonds. As touching their medicinable vertues, L they be good to cleanse and close vp wounds: to discusse and resolute any apostemes which bee in gathering. Moreover, they be vsed in the diseases of the brest (and namely true Terpentine) by way of liniment; for then it is singular good, especially if it be applied hot: also for the pains of the lims, and for those that be plucked with the cramp, in case the grieved parts bewel rubbed therewith in the sun; which they know well enough who buy slaues and sell them for gain, after they haue trimmed and fet them out for sale: for they especially are very curious to annoint their bodies al ouer with this Terpentine, for to loosen the skin when they be hide-bound, lank, and carrion lean, to giue more liberty and space for euery part to receiue nutriment, and so to make their bodies seeme fat and faire liking. Next vnto the right Terpentine, is the rosin of the Lentiske Tree: this hath an astringent or binding qualitie; but of all others it prouoketh vrine most: all the rest doe mollifie the belly and make it soluble, concoct and digest all crudities, M stent the inueterate cough, and draw downe all the superfluous burdens of the matrice: for which purpose last named, their fume receiued by a fummigation, is very effectually. They are more particularly as good as a counterpoison against the venomous gum *Ixia*, growing vpon the

A the plant *Chamaeleon*. Incorporat with buls tallow and hony, they cure the biles called *Pani*, and such risings in the flesh. The *Lentisk* rosin, is singular good for to lay euen and streight the haire of the eie-lids when they grow into the eies. In fractures and broken bones, it is most necessary, as also for the ears running with filthy matter: likewise to kil the itch in the priuy members. Finally, the per-rosin of the Pine tree, is a most soueraigne medicin to cure all the wounds of the head.

CHAP. VII.

¶ Of Stone-pitch: of Tarre: of Pitch twice boiled: of Pissaspphalt or Mummie: of Zopif: sa: of Torch-wood, and the Lentiske.

B From what tree Pitch commeth, and the sundry waies of making it, I haue declared heretofore: also that there be two principall kinds thereof; to wit, the thick or fast Pitch, and the thin or liquid: of the former (or, the best for vse in Physick is the Brutian Pitch, for that (being of all others fattiest & fullest of gum) it yeeldeth a twofold commodity both for medicines, and also to trim and rosin wine-vessels, for which purposes, that which inclineth to a reddish yellow is counted the chiefe. But whereas some do say moreouer, that the better Pitch commeth from the male tree, I cannot conceiue what they should mean thereby, neither doe I think it possible to discern any such difference. True it is, that Pitch by nature is hot, & a good incarnatiue: a speciall and particular property it hath against the venom inflicted by the sting C or tooth of the horned serpent *Ceraustes*, if it be made into a cataplasme with fried barley groats: and being applied with honey, it healeth the squirancy, cureth catarrhs, and restraineth sneezing: with oile of roses, it serueth well to be poured into running ears, out of which there doth ooze filthy matter: or being applied in manner of a liniment with wax, it is passing good: it healeth the ill-fauored tetters called *Lichenes*, and it looseth the belly: licked or let downe leasurely in maner of a loch, it is a good means to void and reach vp from the brest, tough fleame: and to annoint the tonsils or almonds in the mouth with it and hony together, is a proper medicine: being in that manner prepared and vsed, it clenseth vlcers: and if it be incorporat with raisins and swines grease, it doth incarnat and fill them vp again with new flesh: carbuncles also it doth mundifie; so doth it fores that begin to putrifie & gather corruption: but if they be such D as spread & be corrosiue withal, then there would be an addition of the Pine tree bark, or brimstone. Some haue prescribed, for the consumption of the lungs, and a cough of long continuance, to drinke the quantity of one cyath in Pitch. The fissures and chaps as wel about the feet, it cureth: for the flat biles named *Pani*, it is very good: as also to take away the rough nails that be so troublesome. The very odor or perfume thereof, helpeth the hardnesse of the matrice; and setleth it again, being either sajd down, or turned out of the due place: likewise it helpeth such as be surprisid with the lethargy. Moreouer, if it be boiled in the vrine of a yong boy vnder 14 yeares of age with barley meale, it is a good maturatiue, and bringeth the wennes called the Kings euill to suppuration. As for dry pitch or stone pitch, it helpeth much to make the haire grow again, where it is shed by some disease. The Pitch called Brutia, or of Calabria, E boiled in wine to a waulm or two, with the fine floure of the bearded wheat Far, and so applied in a cataplasma as hot as may be suffered, is singular good for womens paps. Concerning liquid Pitch or Tar, as also the oile which they call *Pissaspphalt*, and how it is made, I haue already written at large. Some boile it a second time, and then they name it *Palimpiffa*. With this liquid Pitch it is good to annoint the squinzy that groweth inwardly; as also the vula within the mouth: the same is singular for the pain in the ears, to clarifie the sight, to clenfe the mouth furred as it were, so as it hath no tast of meat: likewise for those who are short winded: for women who are diseased in their matrice: to ripen & rid away old coughs; and to ease them that can doe nothing but spit & reach out of the chest: for spasmes, cramps, shaking, and trembling: moreover, it helpeth them whose heads or bodies are drawn backward: it cureth palsies, and any pains F or griefs of the sinews. There is not a better thing to kill either the mange in dogs, or the scab and farcines in horses asses, and such like traouelling beasts.

Moreouer, as touching *Pissaspphalt*, which is of a mixt nature, as if pitch and Bitumen were mingled together, it groweth naturally so, in the territory of the Apolloniars, yet some there be who make an artificial pissaspphalt, and meddle the one with the other, and hold it for a remedy

to cure the farcins and scabs of cattell; as also when the young sucklings doe hurt the teats of their dams. Of this kind, that is best which is of it selfe, and come to maturity and perfection: the same in boiling swimmeth aloft. * Zopissa, is that Pitch, which (as I said heretofore) is scraped from ships, and is confectioned of wax well foked in the salt water of the sea: the best is that which commeth from ships that haue bin at sea and made some voiajes: it goeth into emolliente plasters, for to resolute the gathering of impostumes. As for Tæda or Torch-wood, if it bee foddren in vineger, it maketh a singular collution for to wash the teeth withall when they ake.

Let vs come now to the Lentisk tree: the wood, the seed or fruit, the bark and gum thereof, do prouoke vrine, and bind the belly: a fomentation made with their decoction, is excellent good for eating and corrosiue vlcers: it serueth in a liniment for all sores in moist & flegmatick parts: likewise to cure S. *Anthonyes* fire, and to wash the gums withall: chew the leaues thereof and crush them well between the teeth, the same will ease their ach: wash them with their decoction, and they will set them fast in the head. The same are good to colour the haire black: the gum which this tree doth yeeld, is soueraign for the infirmities of the feet, especially such as require either drying or heating. The very decoction of Mastick is comfortable to the stomach, it causeth it to rift, & is besides diuretical. Applied vnto the head as a liniment, incorporat with the fried groats of barley, it cureth the ach or pain thereof: the tender leaues be applied to right good purpose, for the inflammation of the eies. Moreouer, this Mastick, which is the gum of the Lentisk tree, is vsed ordinarily to lay the hairs of the eyelids euen, & to extend or make plaine and smooth the riueld skin of the face: therefore it is vsed in sope, and wash-bals. Moreouer, there is a good vse thereof, for spitting and reaching vp of bloud, & for an old cough. In one word, it serueth all those turns whereto the gum Ammoniacke is vsed. It healeth all places galled and chaufed, where the skin is rubbed or fretted off: and if the cods and members of generation be fomented either with the oile made of the seed of the mastick tree mixed with waxe, or with a decoction of the leaues boiled in oile or els in water, it will skin any raw part thereof. To knit vp this discourse, I am not ignorant that *Democritus* the Physitian, who had in cure *Considia*, the daughter of *M. Seruilus* late Consul of Rome, for an * infirmity or malady of hers (for that this damofell could not abide to heare of any vnpleasant Physick) caused her to be fed a long time with the milk of goats which were kept with the Lentisk tree leaues, and did eat nothing els, and so he cured her of her malady.

* It should seeme the vicer of the legs or kidneys, or els some outrageous flux of bloud,

CHAP. VIII.

¶ Of the Plane tree, the Ash, and Maple: of the white Poplar and Elme, the Tillet or Linden tree, the Elder, and the Iuniper.

THE Plane tree is an enemy to Bats or Reremice: their little bals which they beare, if they be taken to the weight of foure Roman deniers in wine, do cure all poisons of serpents and scorpions: likewise they heale any burn. Being braied or stamped with strong & sharp vineger (which if it be Squilliticum is the better) they stanch any bleeding whatsoeuer. Incorporat in hony, they mundifie and cleanse all cancerous vlcers, the red pimples and specks, with all black spots and marks in the skin which haue remained a long time. The leaues and bark reduced into a liniment, their decoction also, help to rid away any gathering of humors to an head, and namely if they matter and run. The decoction of the bark foddren in vineger, is a singular remedy for the tooth-ach; like as the tendrest leaues boiled in white wine, for the infirmities of the eyen. The ashes which come of the foresaid little bals, do heale vp any burn, occasioned either by fire or extreame cold. The bark taken in wine, represseth the venome of the scorpions sting, so that it shall go no farther.

As touching the Ash tree, of what effectuall operation it is against serpents, I haue declared heretofore: it beareth a * seed inclosed within certain * cods, which being taken in wine, is an ordinary remedy for the obstructions & infirmities of the liuer, as also for the pain in the sides. The same also do euacuat the aquosities or waterish humors spread between the skinned flesh in the dropie Leucophlegmatia: the leaues do take down by little & little and make lean a body ouer-grosse, and do ease it of the troublesome carriage that it hath of so much fat, if the same be stamped and giuen in wine: but herein good regard ought to be had of the strength of the party, after this proportion: If it be a child, five leaues of the ash are sufficient to be infused in

* Called Lin-gua-suis. Which are named Keyes,

A in three cyaths of wine; but elder folk and of a stronger complexion, may abide seuen well enough in five cyaths, and drink the infusion. But before I do leaue this tree, it would not be forgotten that the small chips and shavings, yea, and the saw dust or filed powder of this wood, are thought to be hurtfull vnto some, and they are forbidden to meddle withall. The root of the Maple tree, stamped into a cataplasme, is singular to be applied for the griefs of the liuer, and worketh mightily.

As touching the white Poplar or the trembling Asp, I haue shewed heretofore how the perfumers vse the berries or * grapes thereof in their sweet ointments. The barke infused and taken in drink, is good for the sciatica and the strangury. The iuice drawn out of the leaues, dropped hot into the ears, easeth their pain. Whofoeuer carieth a twig of Poplar in their hands, shall not need to feare any furbating of the feet, or galling between the legs. The best blacke Poplar and of greatest operation in Physick, is that reputed which groweth in the Island Creta; the fruit or grain thereof if it be drunk in wine, is singular for those who be taken with the falling sicknesse. This Poplar yeeldeth a certain small gum or rosin, which is much vsed by Physitians in emolliente plasters: the leaues foddren in vineger, make a proper cataplasme to be applied vnto the gout: the liquor or humor that issueth out of the pores or concavities of the blacke Poplar, taketh away warts and wheals, it skinneth also galled & raw places in any part of the body: these Poplars as well white as black, beare vpon their leaues certain warts like to drops of water standing vpon them, out of which the Bees do gather that cereous substance named Propolis. The drops also of water, which the said Propolis doth yeeld, if they be mingled with water, is a very effectuall remedy for many things.

Now for the Elme: the leaues, the bark, and the woody substance of the branches, haue a glutinous nature to consolidat, vnite, and heale wounds: the thinner rind or tunicle verily which lieth between the outward bark and the tree, doth assuage the leprosie, called of some S. *Magnus* euill: so do the leaues also, applied with vineger. The barke of the Elm puluerized and taken to the weight of a Roman denier in one hemine of cold water, is a very purgatiue, and doth euacuat flegmatick and waterish humors particularly. The liquor that issueth from the tree as a jelly, is singular good for apostemations, wounds, and burnes; but if the places were fomented before with the decoction, it would be the better. The Elm beareth certaine small bladders or huskes, wherein there is ingendred and contained a waterish humour, which is very proper to imbelish the skin, & beautifie the face. The first tender sprouts of the leaues boiled in wine, do assuage all tumors, & * draw filthy matter and corruption forth of fistulous sores: the same do the inward thin rinds within the bark. Many are of opinion, That the very bark chewed only, and applied to green wounds, is singular good to heale them. They affirme moreover, That the leaues bruised and applied to the feet, allay their swelling, so there be water sprinkled among. Furthermore, the water or liquor which runneth from the heart or pith of the wood when the tree is looped or disbranched (as I haue said before) if the head be annointed or bathed withall, causeth the haire to grow again if it be lost, and keepeth it on if it be ready to shed and fall.

As touching the Tillet or Linden tree, the very wood thereof is vsed for all things in a manner that the wild oliue is imploied vnto, if the same be lightly bruised or stamped: howbeit, the leaues only are occupied, which, if they be chewed and so applied, do cure the cankers breeding in the mouth of small infants. Being boiled and their decoction inwardly taken, they prouoke vrine: outwardly applied, they do stay the inordinat and excessiue flux of womens fleurs, but giuen in drink, they euacuat the same superfluous bloud.

There is a second kind of Elder more wild of nature, which some of the Greeke writers call * Chamææde, others Helion, and it groweth much lower than the other. The decoction of the leaues as well of VVallwoort as Elder, boiled in old wine, is contrarie and noysome to the stomach, and purgeth downward waterie humors: euen so doth the decoction either of the seed or the root, if it be taken inwardly to the quantity of two cyaths: the same is excellent to coole any inflammation; and namely, to take out the fire of any new burn or scald. The yong and tender leaues, as well of Elder as VVallwoort, reduced into a cataplasme and laied too with barley groats, doe cure the biting of a dogge. The iuice both of the one and the other, infused and conuighed accordingly into the head, is a soueraigne lenitiue for all impostumes of the braine, and especially those which are growing in the fine membrane or pellicle called Pia Mater, which immediately lappeth and enfoldeth the braine. The fruit or berries of the Elder or

* And yet heretofore he hath said that the one nor the other.

* Extrahuntur pias fistulas.

* Ground Elder, Wallwoort, or Dane wort,

of Walwort, are weaker in operation than the other parts of the tree or plant: howbeit, they serue wel to colour the haire of the head black. The same also taken in drinke, to the measure of one acerbale, be diureticall and prouoke vrin. The softest and tenderest leaues are eaten ordinarily in a salad with oile and salt, for to purge flegm and choler. In summe, the lesser plant, which is the VValwort, is in all things more effectually than the elder it selfe; for if the root thereof be foddren, and a draught of two cyaths be giuen to them who are in a dropsie, it will purge mightily and euacuat watery humors. A decoction of the roots and leaues of Danewort, is singular to mollifie the matrice and naturall parts of a woman, if she sit ouer the same and take the vapour thereof into her body. The tender sprigs of the milder Elder, boiled between two platters, do make the body soluble, and moue to the seege. The leaues drunke in wine, resist and kil the poisoned sting of serpents. The tendrons of the elder, incorporate with goats tallow, and reduced into a liniment, are singular good for the gout, if they be applied to the grieved place: the water of their infusion, if it be cast or sprinkled in any room of the house killeth fleas: and if the place be likewise sprinkled with the decoction of the leaues, it will not leaue a flie aliue. There is a kind of disease [much like to purples or meazles] when the body is bepainted all ouer with red blisters: a branch of the Elder tree is excellent good to lash the said wheales or risings, for to make them fall again and go down. Take the inner bark or rind of the Elder, beat it into powder, and so drinke it in white wine, it is a sufficient purgation.

The Iuniper of all other trees, passeth either for to heat any part, or to extenuate & make subtil any humors: in operation much like to the Cedar. Of it there be two kinds; the greater, and the lesse: a perfume made with the one as well as the other, drieth away serpents: the seeds or berries of Iuniper, assuage the pains of stomach, breest, & sides: the same serue wel to break wind and resolute all ventosities, yea and to euaporate all cold and chilnesse: they ripen any cough, and mollifie all hardnesse: a liniment made thereof applied outwardly, causeth any tumor to go down and represseth the rising thereof: likewise if the berries be drunke in some grosse or thick red wine, it will stay a lask: like as they will abate the swelling of the belly, if they be laid too by way of a cataplasme or liniment. The Iuniper berry is reckoned among the ingredients which go into antidotes, or preseruatiues against poison, such I mean, as be penetratiue and of quick operation. It is diureticall and moueth vrin. In case the eies do water much by reason of a continuall rheum taking to them, it is good to apply a liniment vnto them made therewith. Foure Iuniper berries are giuen in white wine, or 20 of them boiled in wine, for convulsions, crampes, ruptures, wrings, and torments in the belly, for the griefes of the matrice and the Sciatica. To conclude, some there be, who fearing to be stung with serpents, vse ordinarily to rub or annoint their bodies with a liniment made of Iuniper seed or berries.

CHAP. IX.

¶ Of the Sallow, Willow, or Withy: of the twig Withy or Oisier Amerina. Of twigs or binding rods. Of Heath or Lings.

The fruit which the willow or Sallow yeeldeth, if it be suffered to hang, before it doth ripen is conuerted into a certaine substance resembling a cobweb, but being gathered ere it be thus transformed, it is singular good for such as reach or cast vp blood. The ashes of the rind pilled from the first branches that the willow putteth forth, and tempered with water, taketh away corns and callosities of the feet: they serue also to rid the spots and specks which disfigure the visage, the rather if they be incorporat with the juice of the willow. Now there be found in the said willow, 3 sorts of juice: the first sweateth out of the tree it self in manner of a gum: the second issues forth by way of incision, when the tree is in the bloom; provided alwaies that the cut or gash in the bark, be made three fingers broad: this liquor is singular good to cleanse the eies, and to rid away such impediments as hinder the sight; likewise to incrassate or thicken where need requireth, to prouoke vrin, and draw forth all inward impostumes outwardly: the third juice is that which distilleth from the branches presently after the bill or cutting: hook, when the tree is lopped, or the boughs cut from the body. Take any one of these juices, and heat the same well with oile of Roses in the rind of a Pomegranat, excellent it is for to be dropped into the ears: likewise the decoction of Sallows, or the leaues stamped and incorporat with wax, and so applied, do the like: as also laid too in maner of a cataplasme, they ease the pain of

A of the gout. The decoction of the leaues and bark boiled in wine, is passing wholsom to foment the nerues withall. The blooms or charbons of the willow, stamped together with the leaues, cleanse the branny scales that appeare in the face. The leaues of the willow punned and taken in drinke, do coole them that are giuen too much vnto lasciuious lust, and ouer hot in the action of Venus: and if they vse to take the same often, they will disable them altogether for the act of generation. The seed of the black Oisier or willow called Amerina, mixed in like weight with white litharge of siluer, and brought into a liniment, is a depilatory, and fetcheth off the haire if the place be annointed therewith presently after the baine.

There is a kind of tree named Vitex, not much different from the willow, in regard of the vse that the twigs be put vnto, and also of the leaues which resemble those of the willow in outward shew, but that their smell is more pleasant and odoriferous: the Greeks, some call it Lygos others Agnos, i. chaff; for that the dames of Athens, during the feast of the goddesse Ceres, that were named Thesmophoria, made their pallets and beds with the leaues thereof, to coole the heat of lust, and to keep themselves chaste for the time. And two sorts there be of it. The greater riseth vp to a tree in maner of a willow: the other, which is lesse & lower, brancheth thick, bearing white leaues, and those full of down and cotton. The former of these two, which is called the white Agnus Castus, putteth forth white floures & purple one with another: whereas contrariwise, all the floures of the lesse, which is called the black, be purple only. Both the one and the other loue to grow in plains and moors. The seed of Agnus Castus, if it be taken in drinke, hath a certain rellish or tast of wine, and it is commonly thought that it cureth feuers: & whoeuer is annointed therewith, being incorporat into a liniment with oile, shall soon sweate: and by that means it is good to rid away wearinesse. Agnus Castus, as well the one as the other, prouoketh vrin, and the monthly terms of women. Both of them fume vp into the head as wine doth: and no maruell, for they haue the very smell of wine. They be singular to fend all ventosities downward. They stop the flux of the belly, and be excellent good for those who are in a dropsie, or troubled with the spleen. They haue this speciall property besides, to breed good flore of milk in milch nurces. Aduerse they be to all poisons of serpents, such especially as doe mischief by their cold quality. The lesse is more effectually against serpents. And for this purpose they vse to giue either one dram of the seed to drinke in wine or Oxycrat, which is vineger and water; or els two drams of the most tender leaues. There is neither of them both, but as well the seed as the leaues, reduced into a liniment, be singular good for the pricke of spiders. And there is not any venomous creature that wil come neere those who are but annointed therewith: nay they wil fle from the very perfume thereof, or the couch which is made of the leaues: they abate the heat of wanton lust: and in that regard especially they be contrary to the venomous spiders Phalangia, which by their sting do prick a man forward that way, and cause his flesh to rise. The floures and yong tendrils of Agnus Castus incorporat in oile rosat, do allay the headach, occasioned by drinking ouerliberally: but if the said headach be exceeding great, it is good to foment the head in a decoction of the seed of the said Agnus: for it will resolute & dispatch the extremity thereof. The same likewise by way either of suffumigation or cataplasme, mundifieth and cleanseth the matrice. And being taken as a drink with penyroial and hony, it is a purgatiue, and scoureth the belly. Mixed with Barly meale, and applied pulsethessewise, it mollifieth those botches & byles which hardly grow to ripenesse. The seed tempered with salt petre and vineger, healeth tetters, ringwormes, and red pimples: and with hony cureth the cankers or sores of the mouth, yea, and any wheals and breaking forth whatsoeuer. The same reduced into a liniment with butter and vine leaues, wariseth the infirmities incident to the cods: and if the seat be annointed with it & water medled together, it taketh away the chaps & fissures in that part. Brought into a cerot with salt, nitre, & wax, it is singular good for all dislocations: both the seed and leaues of Agnus, enter into many cataplasmes or mollitiue plasters, deuised for the sinewes and the guts: the seed boiled in wine, maketh a good decoction, which if it be dropped vpon the head by way of embracation, is right soveraign for lethargy and frensie both. It is said, that whoeuer beareth in his hand a twig of Agnus, or gird himselfe about the middle therewith, shall not be galled or fretted between the legs.

As touching Heath or Lings, which the Greeks call Erice, it is a shrub not much different from Tamariske, in colour and forme of leafe, such as it is, resembling Rosemary. The leafe of this plant (they say) is an enemy to serpents.

*For they call
it *Sparton*, as
well as the
plant.

As for Broom, it serueth also very well to make halters and cords of. The floures please bees G
passing well. I am in doubt and not able to say, whether this Genista or Broome, be that which
the ancient Greek writers called *Sparton*; for I haue shewed, that they vsed therof to make their
fishing nets: and I wot not well whether *Homer* meant it, when he said, that the ship-sparks were
vntwisted and loose. For this is certain, that neither the spart of Africk, ne yet the Spanish spart
it was as yet in any vse: and at what time as barges and vessels were sowed together with seams, it
is wel known, that the stiches were made with linnen thred, & not with spart. The seed that it
beareth, which the * Greeks giue one and the same name to, growing within smal cods in maner
of Phascols, is as strong a purgatiue [of Melancholy] as Ellebore; if it be taken when one is fa-
sting, to the weight of a dram and halfe, in four cyaths of honied water: the branches & leaues H
(such as they be) of Genista or Broome, being stamped after they haue lien infused in vineger,
yeeld a certain iuice singular good for the Sciatica, if it be drunk to the quantity of one cyath.
Some chuse rather to steep it in sea-water, and to draw forth the iuice, and so minister it with a
clyster for the said purpose. The said iuice incorporat with oile, serueth for an ointment also to
be applied outwardly for the Sciatica. Some vse the seed for the strangury. The substance of
Broom stamped with swines greafe, helpeth the ach or pain in the knees.

To come now to Tamarisk, which the Greeks call *Myrice*, *Lenaus* affirmeth, That it is vsed
in maner of the Amerian willow for beecomies: and more than so, that if it bee foddren in wine,
stamped and reduced into a liniment with hony, it healeth cankerous vlcers: and in very truth,
some hold, That the *Myrice* and *Tamariske* be both one. But doubtlesse, singular it is for the
spleen, in case the patient drinke the iuice pressed out of it in wine. And by report, there is that
wonderfull antipathy and contrariety in Nature betwene *Tamariske* and this one part alone I
of all the other bowels, that if the troughs out of which swine drinke their swil, be made of this
wood, they will be found when they are opened, altogether without a spleen. And therefore some
Physitians do prescribe vnto a man or woman also diseased in the spleen, and subiect to the opi-
lations therof, both to drinke out of cups or cans of *Tamarisk*, and also to eat their meat out of
such treen dishes as be made of that wood. One renowned writer about the rest, and for know-
ledge in great credit and authority among Physitians, hath affirmed and aouched constantly,
That a twig of *Tamarisk* slipped or broken from the plant, so as it touched neither the ground, K
nor any yron tooles, affluageth all belly ache, in case the patient weare it about him so, as that his
girdle and coat hold it fast and close to the body. The common people call it The vnlucky tree,
as I haue heretofore said, because it beares no fruit, & is neuer with vs set or planted. In Corinth
this *Tamarisk* in Egypt and Syria beareth in great plenty a certain fruit, in substance hard and
wooddy, in quantity bigger than the gal-nut, of an vnpleasant and harsh tast, which the Physiti-
ans do vse in stead of the Gal-nut, and put into those compositions which they name *Antheras*.
Howbeit, the very wood of this plant, the floure, leaues, and barke also, be vsed to the same pur-
pose, although they be not so strong in operation as the said fruit. The rind or barke beaten
to powder, is giuen with good successe to them that cast vp blood: also to women who haue a great
mist of their flours: likewise to such as be troubled with a continual flux, occasioned by the im-
becility of the stomack. The same bruised and applied as a cataplasme, represseth and smiteth L
backe all impostumations a breeding. The iuice pressed out of the leaues, is good for the same
infirmities: moreover, they vse to boile the leaues in wine, for the same intent. But of themselves
alone being brought into a liniment with some hony among, they are good to be applied vnto
gangrenes. The foresaid decoction of the leaues being drunke in wine, or the leaues applied
with oyle of Roses and wax, mitigat the said gangrenes, namely, when the flesh tendeth to mor-
tification. And in this manner they cure the night-foes or chilblanes. Their decoction is whol-
some for the paine of teeth or eares: for which purpose serueth the root likewise and the leaues.
ouer and besides, the leaues haue this property, That if they be brought into the form of a ca-
taplasme with barley groats and so applied, they keep down and restrain corrosiue vlcers. The M
seed if it be taken to the weight of a dram in drinke, is a preseruatiue and counterpoison against
spiders, and namely those called *Phalangia*. And if the same be incorporat with the tallow or
grease of any fatlings or beasts, kept vp in stall, stie, or mow, into a liniment, it is singular good
for any vncom or fellon. Of great efficacy it is also against the sting of all serpents, except
the

A the *Aspis*. The decoction likewise of the seed clysterized, is singular for the jaundise, it kills lice
and nits, and staiteth the immoderat flux of womens months. The ashes of the very wood of the
tree, is good in all those cases before said: which if they be mingled in the stale of an oxe, and so
taken of man or woman, either in meat or drink, it will disable them for hauing any mind to the
sports of *Venus* euer after. And a burning cole of this wood, when it is quenched in the stale or
beasts pisse, they vse to saue & lay vp in the shade for that purpose: but if one list to kindle lust,
* then they set it on fire againe. To conclude, the Magitians say, That it would do as much if
the vrine only of a gelded man were taken for the said purpose. *Russum vnde tur.

CHAP. X.

B

¶ Of the Bloud-rod. Of *Siler*. Of *Prinet*. The *Alder tree*, and *Ivy*. Of *Cisthus* and
Cissos. Of *Erithrano*. Of *Chamaecifos* or *Ground-Ivie*. Of *Smitax* or
Bindweed. Of *Clematis*.

THE Plant called the Sanguin-rod, is as vnhappy as the foresaid *Tamariske*. The inner bark
thereof is singular good to open again those vlcers, which are healed aloft only and skinned
before their time.

The leaues of * *Siler*, brought into a liniment and applied as a frontall to the forehead, allay
the paine of the head. The seed thereof driuen into powder and incorporat with oile, is good for
the lousie disease, and keepeth the body from lice. The very serpents cannot abide this plant or
shrub, but flie from it: which is the cause, that the peasants of the country make their walking
stauies thereof.

Our *Ligustrum* or *Prinet*, is the very same tree that *Cypros* is in the East parts. To good vse
it serueth among vs here in Europ: for the iuice of it is wholsome for the finewes, the toynts,
and any extreme cold. The leaues applied with some corns of salt, heale all inueterat vlcers in
any part whatsoeuer, and particularly the Cankers in the mouth. The graines or berries that it
beareth, are good to kill lice: also for any gal, where the skin is fretted off between the legs: and
so be the leaues likewise. The foresaid berries do cure the pip in Hens and Pullen.

As for the *Alder tree*: the leaues if they be applied hot as they be taken out of scalding wa-
ter, do cure without faile any tumor or swelling.

As touching the *Ivy tree*, 20 kinds therof and no fewer I haue already shewed; and of al these
there is not one, but the vse of it in Physick is doubtfull and dangerous. For first and formost,
Ivy, if it bee drunke in any quantity, how soeuer it may purge the head, surely it troubleth the
brain. Taken inwardly, it hurtheth the finewes: applied outwardly, it doth them much good. Of
the very same nature it is, that vineger. All the sorts of *Viues* be refrigeratiue. In drinke they pro-
uoque vrin. But the soft and tender leaues, foddren in vineger and oile of rose, and then stamped, and
so tempered with more oile of rose put too afterwards, vntil they be reduced into an ointment,
are a singular remedy for the pains of the head; and especially for the braine and the thin pelli-
cle *Pia mater*, which inwrappeth the brains: to which effect the forehead ought to be annoin-
ted with the foresaid liniment, the mouth to be fomented and washed with the decoction, and
the whole head afterwards well rubbed also with the abovesaid vnguent. They are good for the
spleene, both taken inwardly in drinke, and outwardly applied as a liniment. The decoction of
the same leaues may be drunke very well against the fit of an ague, to driue away the shaking
cold: also for the smal pocks and meazles: for which turn likewise they serue, if they be pulueri-
zed and taken in wine. The berries of the *Ivie* cure the oppilation and hardnesse of the liuer, ei-
ther giuen in drinke, or applied outwardly. So do they open also the obstructions of the liuer, if
a liniment be vsed only. Applied accordingly to the naturall parts of women, draw down their
monthly sicknesse. The iuice of *viue* (and specially of the white, which is planted in gardens)
clenseth the nostrills of the foule vlcers and vermine therein breeding, it rectifieth also the fil-
thy smell proceeding from thence. If the same be conueighed vp into the nose, it purgeth the
F head: but more effectually, if sal-nitre be put therto. Moreover, it is to right great purpose drop-
ped into the ears with oile, in case they either run matter, or be pained. It reduceth cicatrices or
wounds and vlcers newly skinned, to the naturall colour of the other skin: the iuice of the white
Ivy is of more force and better operation for the oppilations of the spleen, & the swelling hard-
nesse thereof, if it be made hot with a red hot yron, than otherwise: whereof fixe berries in two
cyaths

*Some think
it is the broad-
leaved *Oleifer*.

* Golden berry Ivy.

cyaths of wine, is a sufficient dose. Moreouer, three berries of the same white Ivi drunke at a time in Oxymell, do expell the worms in the belly: during which cure, it were not amisse to apply them outwardly also. As for the Ivi, which I called * Chrylocarpus, if one take twelue of the golden yellow berries thereof beaten to powder, and put them to a sextar of wine, three cyaths therof giuen to drink, according to *Erasistratus*, purge by vrine the watery humors between the skin and the flesh, which ingender the dropsie. The same *Erasistratus* was wont to take fise such berries stamped into powder and mixed with oile of rose, which after they were made hot in the rind of a Pomgranat, he vsed to drop into the eare of the contrary side, for the tooth-ach: the berries of Ivy which yeeld a iuice as yellow as Safron, if a man take before he sit down to drink, may be assured, that he shal not be drunk at that sitting. Likewise, they ease them much who are giuen to cast and reach vp blood, or be subiect to the collick and wrings of the belly. The white berries of the black Ivi if a man take in drinke, dull the vigor of his generall seed, and disable him for getting children: any Ivy whatsoever, being boiled in wine, & sobrought to a liniment and applied, doth cure all vlcers, euen morimals, and such as be vntoward for to be healed. The liquor issuing out of Ivy, is depilatory, but as it taketh away haire, so it riddeth lice and vermin. The floures of any kind of Ivy, taken (as much as a man may comprehend with 3 fingers) twice a day in some green and hard wine, help the dysentery or bloody flux; yea, and any other laske. The same reduced into a liniment with wax, are very good to skin and heal burns or scaldings. The berries of Ivy, colour the haire of the head black. The iuice of the Ivi root drawn with vinegar and taken in drinke; is singular against the poison of the venomous spiders Phalangia. Moreouer, I find in some writers, That the drinking out of a cup or dish of Ivy wood also, as well as of Tamarisk, cureth those who haue hard Spleens. The same authors prescribe to bruise the berries, afterwards to burn them, and with the ashes to dresse and bestrew the place that is burnt or scalded, so that it be first washed & bathed in hot water. There are Physitians who giue order to cut and lance the Ivy tree, for to draw a iuice or liquor from the place of the incision, which is to be vsed for rotten and worm-eaten teeth: and by their saying, the faulty teeth will breake and crumble into pieces if they be annointed therewith: provided alwaies, that the sound and good teeth standing next, be wel defended with wax for catching harm by this medicine: moreouer, they seek and lay for the gum of Ivy, which they would perswade vs assuredly vpon their word to be singular for the teeth, being applied thereto with vinegar.

For the vicinity and likeness of the name of Ivy in Greek, which is Cissos, I may take occasion to speak in this place of another shrub or plant called Cisthos, bigger than Thyme, & leaved like Basil. Of it be two kinds, namely, the male, with a red Rose colored floure; the female with a white: both sorts are good for dysenteries or bloody fluxes, and all loofeness of the belly, if there be drunk twice a day in some green & hard wine, as much of their floures as may be held at three fingers ends: which if they be made into a cerot with wax, heale old vlcers, burnes, and scaldings: and alone of themselves cure the cankers or sores in the mouth.

Vnder this plant specially grows Hypocisthis, wherof I haue written in my treatise of Ivi. Likewise, there is another plant like vnto the Ivy, and the Greeks call it Cissos Erythranos: which being taken in drinke, helpeth the Sciatica, and is good for the loins: but they say it is so vehement and forcible in operation, that together with vrine it will euacuat blood.

Moreouer, there is an Ivy which creepeth and traileth alwaies close by the ground, and the same the Greeks call Chamæcissos. This herb being stamped and taken in wine to the quantity of one Acetabell, cureth the infirmity of the spleen. The leaues incorporat with swines grease serue to cure burns.

Furthermore, the Bindweed Smilax, known also by the name of Nicephoros, resembleth Ivy, but that it hath smaller leaues. They say, that a chaplet or guirland made of this Smilax, is singular for the headach; provided alwaies, That the leaues which goe to the making of it, bee in number odde. Some haue said that Smilax is of 2 sorts: the one, which continueth a world of yeres, grows in shadowie vallies, climbing trees, & tufted in the head with clusters (as it were) of berries in manner of grapes; a soueraigne plant against all poisons, in so much, as if the iuice or liquor of the berries be oftentimes dropped into the ears of yong babes or little infants, no poisons (by report) will euer hurt them afterwards. As for the other Smilax or Bindweed, it loo- ueth places well toiled and husbanded, wherein it vsually groweth: but of no vertue it is & operation: the former Bindweed is that, the wood wherof we said would giue a sound, if it were held close

A close to the eare. Another herb there is like to this, which some haue called Clematis. This plant creepeth & climbeth vpon trees, hauing many ioints also or knots. The leaues are good to mundifie the foule leprosie. The seed drunk to the measure of one acetabell, in a hemin of water or mead, maketh the belly loofe. The decoction thereof is giuen likewise to the same effect.

CHAP. XI.

¶ The vertues and properties of Canes or Reeds, of the Papyr reed, of Ebene, Oleander, Sumach, otherwise called Rhus Erythros, Madder, Alysson, Sopewort or Fullers-weed, Apocynon, Rosemary, Cachrys, Sagine, Sclago, and Samulus. Also of Gummes.

B Heretofore haue wee shewed 29 sundry kinds of Reeds, all indued with their medicinable vertues: and in no plants more appeareth the admirable power of dame Nature, the only subject matter handled in all these books of ours. For in the first place, there presenteth it selfe vnto vs the root of Reeds or Canes, which being bruised and applied accordingly, draweth forth of the body any spills of Fearne sticking within the flesh: so doth the Fearn root by the Reed. And forasmuch as we haue set downe many sorts of Canes, that amongst the rest, which cometh out of India and Syria, and whereof perfumers haue so great vse in their sweet ointments and odoriferous compositions, hath this property besides, That if it be boiled with the grasse called Dent de Chien [i. Quioich grasse, or Parsley seed] it is diureticall and prouoketh vrine. Applied outwardly, it draweth down the desired sicknesse of women. Taken in drinke to the weight of two oboli, it cureth those who are subiect to convulsions or cramps: it helpeth the liuer and the reines: it is a remedy also for the dropsie. As for the cough, a very perfume thereof will stay it, and the rather, if it be mixed with Rosin. The root foddren in wine with Myrrh, clen- seth scurfe and dandruffe, it healeth also the spreading vlcers & running scabs of the head: there is a iuice besides drawn from it, which becommeth like to Elaterium, or the iuice of the wilde Cucumber. Moreouer, in any Reed, the best and most effectual part thereof is that holden to be, which is next to the root. The ioints also and knots be of great efficacy. The Cyprian Cane is named Donax, the rind whereof, if it be burnt and brought into ashes, is singular for to bring haire againe in places where it is shed: it healeth likewise vlcers growing to putrefaction. The leaues thereof are vsed, to draw forth any pricks or thorns. The same be of great vertue against S. Antonies fire, the shingles, and such like, yea & against all impostumations: the common and ordinary Reeds haue an extractiue or drawing faculty, if they be stamped greene: which is not meant of the root only, but also the very substance of the reed it self, which they say is of great operation. The root being reduced into a liniment, and applied with vinegar, cureth all dislocations, and easeth the pains of the chine bone. The same punned green and new, stirreth to lust, if it be drunk in wine. The down or cotton growing vpon the cane, if it be put into the ears, causeth hardnesse of hearing.

There groweth in Ægypt a certain plant named Papyrus, which resembleth much the Cane or Reed: a thing of great vse and commodity, especially when it is dry; for it serueth as a sponge both to suck vp the moisture in Fistulaes, and also to enlarge them. For twelling as it doth, it keepeth the vicer open, and maketh way for the medicines to enter accordingly by that means. The paper made thereof when it is burnt, is counted to be caustick. The ashes of it being drunk in wine, cause sleep: and applied outwardly, taketh away hard callosities.

Touching Ebene, it groweth not (as I haue already said) so neare vnto vs, as in Ægypt. And albeit my meaning and purpose is not to deale with any medicinable plants growing in the strange & vknown countries of another world: yet in regard of the wonderfull properties that Ebene hath, I will not passe by it in silence. For first and foremost, the fine dust or powder filed from it, hath the name to be a singular medicine for the eies: as also, that the wood thereof being ground vpon an hard stone, together with wine cuit, dispatcheth away the cloudy mist which ouercasteth the eies. As for the root, if it be vsed likewise and applied with water, it consumeth the pin and web, and other spots in the eies. The same being taken with equall quantity of the herb Dragon in hony, cureth the cough. In sum, Physitians repute and range Ebene among the medicines which be corrosiue.

Oleander, called in Greek Rhododendros, which some name Rhododaphne, and others Nerion,

As concerning gums, I haue heretofore declared how many kinds thereof are to be found. G To speak of them in generall, The better that any gum is, the more effectually be the operations thereof: hurtfull they are to the teeth: they haue a property to thicken or coagulate blood, and therefore be good for those who cast and reach vpon blood: likewise they be singular for burns, as also for the windpipe and instruments of respiration. The superfluous and corrupt vaine within the body, they prouoke and giue passage vnto. They dul & diminish the bitterness of other medicines wherein they be mingled, howsoeuer otherwise they be astringent & do fortifie other qualities. That which commeth from the bitter almonds, and is of a stronger operation to thicken and incrassate, hath vertue also to heat the body. The best gums be those of Plum-trees, cherry trees, and vines: they haue all of them a drying and astringent quality, if any part be annointed with them: and dissolved in vineger, they kill the tetter or ringwormes in children, & heale them vpon. Being drunk to the weight of foure oboli, in * new wine, they be good for any inueterate cough. Moreover, they be thought to make the colour more fresh, liuely, & pleasant; to procure and stir vpon the appetite to meat; also to help those who be pained with the stone, in case they be drunk in sweet wine cuir. And to conclude with some particularity, The * gum of the Egyptian thorne is soueraigne for wounds, and all accidents of the eyes.

* Musto, or
Mistio, in
some made or
compound
wine.
* Thought to
be Acacia.

* Our ladies
thistle,

CHAP. XII.

¶ Of the Arabian Thorne: of * the white Thistle Bedegnar: of Acanthium and Acacia.

Toucing the Arabian Thorne or Bush, and the commendable qualities thereof, I haue sufficiently spoken in the treatise of perfumes and odoriferous confections: yet thus much moreover I haue to say of the medicinable vertues, that it doth thicken and incrassate thin and rheumatick humors, it restraineth all catarrhes and distillations, it represseth the reaching vpon blood, & staeth the immoderate flux of womens monthly terms: for which purposes the root is more effectually than any other part of the plant.

The seed of the white Thistle is singular for the sting of scorpions: a garland made of it and set vpon the head, assuageth the paine thereof. Much like vnto this, is that Thistle which the Greeks call Acanthion, but that the leaues be much smaller, and those are sharpe pointed and prickly all about the edges, and couered with a downe resembling a cobweb; which the people of the East countries do gather, and thereof make certain cloth for garments, resembling silke. K The leaues or roots drunk in substance, are supposed to be a singular remedy for the crampe or convulsion which draweth the neck and body backward.

Moreover, there is a kind of Thorne, whereof commeth Acacia, and it is the juice thereof. It is found in Egypt to issue from certain trees, which be white, black, and green: howbeit, the best Acacia by far, is that which the former (that is to say, the white and the black) do yeeld. There is made likewise a kinde of Acacia in Galatia, which is most soft and tender; and the tree that affordeth it, is more prickly and thorny than the rest. The seed or fruit of all these trees, is like vnto Lentils, but only that the grain is lesse, and the cod or huske wherein it lieth, smaller. L The right season to gather this fruit is in Autumn; for if it be taken before, it is too too strong. For to draw this juice which we call Acacia, the cods wherein the grains lie, ought to be thoroughly steeped first in rain water: soone after, when they be punned or stamped in a mortar, the sayd juice is pressed forth with certaine instruments seruing for the purpose: which done, they let it remaine within mortars in the sun, and there take the thickening; and so at length reduce it into certain trochisks, and reserue them for vse. There is a iuice likewise drawne out of the leaues, but the same is not so effectual as the other. The curiours vse to dresse their skins with the seed or grains thereof, in lieu of Galls. The juice which the leaues of the Galatian thorne abouesaid doth yeeld (and namely, the blackest) is rejected for naught, like as that also which is of a deepe red colour. Contrariwise, that which is either purple or ash-colored and russet to see too, as also that which will be soone dissolved, is of exceeding efficacy to thicken and coole withall; and is preferred before all other in colyries or eye-salues: now for these vses, some are wont to wash the troshes aforesaid, others torrifie and burn them. They are good to colour the haire of the head black: they heale S. Anthones fire and corrosiue sores; yea and all grieuances of the body that consist in moisture: they cure any impostumes, joints that are bruised, kided heels, and the turning

A ring vpon the skin and flesh from the naile roots. They repress the exceeding flux of womens monthly fleurs: the matrice and tiwell if they be slipt and fall out of the body, they reduce into their place again. In sum, for the eyes, for the sores and infirmities of the mouth, and naturall parts seruing for generation, they be soueraigne.

CHAP. XIII.

¶ Of the common Thorne: of the wilde or wood Thorne: of Erysipteron: of Spina Appen- dix: of * Pyxanthus, and * Palurus: of Hulver or Holly: of Teugh: and Brambles: with the medicinable vertues of them all.

* Box-thorne:
* Some call it
Christs thorn.

THe common Thorn also, wherewith the Fullers vse to fill their vats and caudrons, hath the same operation that * Struthium, and is put to the same vse. Many there be verily in all parts of Spaine, who vse it both in sweet Romanders, and also in ointments, calling it A. palathus: and without all doubt, there is a kind of wild white thorne of this race growing in the easterly countries (as I haue said) among the woods, and riseth to the full height of a good tree. Yea and a shrubby plant there is, lower than the other, but as full of prickles, growing in Nisyrus and the Islands of the Rhodians, which some call Erysipteron; others, Adipsatheon, or Dipficon, or Dracheton: the best is that which groweth nothing like to the Ferula, and being despoiled of the rinde, is of a reddish colour inclining to purple. It is found in many places, but not euery where odoriferous. Of what force it is, when the rainebow seemeth to rest vpon it, I haue shewed already. It healeth the filthy cankers or sores of the mouth, and the stinking vlcers or alepocks in the nostrills: likewise the sores, botches, and carbuncles in the priuy parts, the crenises also and clifts in the fundament, or else where, applied vnto the place affected: but if it be drunk, it abateth all swelling of ventosities: the bark or rinde thereof, disperseth those obstructions and impediments which cause the strangury or pissing by drop-meale. The decoction is a singular remedy for them that either pisse or vomit blood. The foresaid rinde stoppeth the flux of the belly. The like effects is that thought to work which groweth in the woods [and is called Aspalathus of the Leuant.]

There is a kind of thorny bush called * Appendix, for that there be red berries hanging there, which be likewise named Appendices. These berries, either raw by themselves, or else dried and boiled in wine, do stay the flux of the belly, and besides assuage the torments and wrings thereof. As for the berries of Pyxanthus, they be drunk to right good purpose against the sting of serpents. Palurus also is a kind of thorny bush: the people of Africk call the seed of it Zura, which is found to be most effectually against scorpions; and for those who are troubled with the stone, and the cough. The leaues haue an astringent or binding qualitie. The root resolueth and dispatcheth biles, impostumes, and botches: and if the same be taken in drink, it procureth vrin: if it be soddin in wine, and the decoction drunk, it stoppeth a laske, and is a defensatiue against the poison of serpents: the root especially is giuen in wine: some there be who stamp the leaues, putting salt thereto, and being reduced into the forme of a cataplasme, apply the same to the gout. The leaues be good to stay the immoderate flux of womens termes, the loosenesse of the belly occasioned by a feeble stomack, the bloody flux, and the inordinat motions of cholerick humors both vponward and downward. The root boiled and brought to a liniment, draweth forth whatsoeuer sticketh within the body. Soueraign it is and of exceeding great operation, in case of dislocations and swellings.

* Some take it
for the Barbery
bush.

As touching the Holly of Hulver tree, if it be planted about an house, whether it be within a city, or standing in the country, it serueth for a countercharm and keepeth away all ill spels or enchantments. Pythagoras affirmeth, that the floure of this tree wil cause water to stand all vpon an yce: also that a staffe made thereof, if a man doe sling it at any beast whatsoeuer, although it change to light short for default of strength in his arms who slung it, wil notwithstanding etch forward and roll from the place where it fell vpon the earth, and approach neere to the beast afore said, of so admirable a nature is this Holly tree.

The fume or smoke of any Yeugh tree, killeth mice and rats. Neither hath Nature produced brambles for nothing els but to prick and do hurt; for such is her bounty, that the berries which they beare are mans meat, besides many other medicinable properties: for they haue a desiccative and astringent vertue, and serue as a most appropriate remedy for the gums, the inflammation

tion of the Tonfils, & the priuy members: the flours also as well as the berries of the brambles, be singular against the Hemorrhoid and the Prester, which are the two wickeddest and most mischievous serpents that be. The wounds inflicted by scorpions, they close & heale vp againe without any danger of rankling or apostemation: and withall, they haue a property to prouoke vrine. The iuice drawne and pressed out of the tendrons or yong sprouts of brambles stamped, and afterwards reduced vnto the consistence of honey by standing in the Sun, is a singular medicine either taken inwardly or applied outwardly, for all the diseases of the mouth and eies, for them that reach vp bloud, for the squinancy, the accidents of the matrice and fundament, finally, for the immoderat flux of the belly occasioned by the weaknesse of stomack. As for the sores and infirmities of the mouth, the very leaues alone of the bramble if they be but chewed, are passing good: but if they be reduced into a liniment and so applied, they heale running sores, or any scals whatsoeuer in the head: & euen so being laid alone vpon the left pap, they be wholesome for such as are giuen to the fainting & trembling of the heart, and subject to fall into cold sweats: likewise being applied accordingly, they ease the pain of the stomack, and such as haue their eies ready to start out of their head: and to help the infirmities of the ears, their iuice is excellent to be dropped into them. The same iuice incorporat with the cerot of roses, healeth the clifts and swelling knubs in the fundament: & for the said infirmity, the decoction of yong tendrils in wine, is a present remedy, in case the place be bathed and fomented therein. The same yong springs eaten alone by themselves in a salad, in manner of the tender crops and spurts of the Colewort; or boiled in some harsh, grosse, and greene wine, do fasten the teeth which be loose and shake in the head: they stop a lask, and restrain an vnaturall issue or flux of bloud, and besides, are good in the bloody flux. Being dried in the shade, and afterwards burnt, their ashes are singular to stay the vula for falling. The leaues also being dried and beaten to powder, are excellent good for the farcines and sores in horses, and such like beasts. As for the blacke berries which these brambles do beare, there is a kind of Diamoron made of them, which is far better for the infirmities of the mouth, and more effectual, than the other of the garden mulberries. The same being so prepared in that stomacall composition aforesaid, or drunk only with Hypocistis and hony, be singular to repress the fury of choler prouoking both waies: they be cordiall likewise, in case of faintings and cold sweats: and lastly, a preseruatiue against the poison of the venomous spiders. Among those medicines which they cal Styptick or astringent, there is not a better thing than to boile the root of this blackberry bramble in wine to the thirds, and namely to make a collution therewith to waih the cankers or sores breeding in the mouth, or to foment the vlcers growing in the fundament. And verily of such a binding and astringent force is this bramble, that the very spongyous bals that it beareth, will grow to be as hard as stones.

Another kind of brier or bramble there is, vpon which groweth a rose: some cal it Cynosbatos, others Cynospastos: it beareth a leafe like to the print or sole of a mans foot. A little bal or pill it breedeth, furred or bristled much after the maner of the Chestnut, which serueth as a speciall remedy for those that be subiect to the stone. As for Cynorhonos, it is another plant different from this; wherof I will speak in the next book.

CHAP. XIV.

¶ Of * Cynosbatos, and the Rasps: of the Rhamnos, and of Lycium and Sarcocolla. Of a certaine composition in Physicke called Oporice.

* i. the Cane-brier or Canker brier.

* *Rubus canis.*

* Obserue how confusedly Pliny scroth down the story of Cynosbatos and Chamæbates, i. the Cane-brier, & the blackberry bramble.

AS for the bramble named Chamæbatos, it beareth certain black berries like grapes, within the kernell wherof it hath a certain string like a sinew, whereupon it came to be called Neurospastos: it is a different plant from the Caper, which the Physitians haue named al-Nowspastos. Now the tender stems of the foresaid * Cynosbatos or Chamæbatos condite in vineger, are good for them to eat who are troubled with the opilation of the spleen, & with ventosities; for it is a singular remedy for those infirmities. The string or sinew thereof chewed with Mastick of Chios, purgeth the mouth. The wild roses that grow vpon this brier, being incorporat with swines grease, are excellent for to make the haire grow againe, when it is shed by some infirmity. * The berries of these brambles if they be tempered with oile oliue made of green and vnripe oliues, colour the haire black. The proper season to gather the floures of these brambles that cary berries like to mulberries, is in haruest time: the white kind of them drunk in wine, is a soueraign remedy for the pleurisie, & the flux of the stomack: the root foddren to the thwads, stoppeth

A Stoppeth a lask, and staieth the flux of bloud: likewise a collution made therewith, fastneth loose teeth, if they be washed withall. The same decoction or liquor is good to foment the vlcers of the seat priuy parts. The ashes of the root burnt, keep vp the vula from falling.

The Rasps is called in Latin Rubus Idæus, because it groweth vpon the mountain Ida, and not elsewhere* [so plentifully.] Now is this bramble more tender, & lesse in growth: it putteth forth also fewer stalkes vpright, and those more harmelesse and nothing so prickly as the other brambles before named: besides, it loweth well to grow vnder the shade of trees. The floures of this bramble reduced into a liniment with hony, restrain the flux of rheumaticke humors into the eies, and keepeth down the spreading of S. Antonies fire: and giuen in water to drink, it cureth infirmities of the mouth. In all other cases, it hath like operations to the former brambles

* Ex Dioscor.

B Among the diuers kinds of brambles, is reckoned the Rhamne, which the Greeks cal Rhamnos, notwithstanding that it is whiter & more branching than the rest. This Rham beareth many flours, spreading forth his branches armed with prickles not crooked or hooked as the rest, but streight and direct, clad also with larger leaues. A second kind there is of them growing wilde in the woods, blacker than the other, & yet inclining in some sort to a red colour: this carieth as it were certain little cods. Of the root of this Rham boiled in water, is made the medicine that is called Lycium. The seed of this plant draws down the after-birth. The former of these two, (which also is the whiter) hath a vertue more astringent and cooling than the other, & therefore better for impostumations and wounds: howbeit the leaues of both, either green or boiled, are vfed in liniments with oile for the said purpose. But as touching Lycium, the best of all other is

C (by report) made of a certain Thorne tree or bush, which they cal Pyxanthos Chironia, the form wherof I haue described among the Indian trees: & indeed the most excellent Lycium, by many degrees, is that Indian Lycium thought to be. The manner of making this Lycium, is in this wise: they take the branches of this plant, together with the roots which be exceeding bitter, & after they be well punned and stamped, seeth them in water within a brazen pan, for three daies together or therabouts: which don, they take forth the wood, & set the liquor ouer the fire againe, where it taketh a second boiling, so long till it be come to the consistence or thicknes of hony: howbeit sophisticated it is many times with some bitter iuices, yea and with the lees of oile & beasts gall. The very froth & scum, in maner of a story that it casteth vp, some vse to put into colyries & medicines for the eies. The substance of the iuice besides is absterfue, it mundifieth the face, healeth scabs, cureth the exulcerations or frettings in the corners of the eies: it represseth old rheumes & distillations, clenseth ears running with filthy matter, represseth the inflammations of the almonds in the mouth, called Tonfille, & of the gums, staieth the cough, restraineth the reaching & casting of bloud, if it be taken to the quantity of a bean: being spread in maner of a plaster or liniment and so applied, it drieth vp running and watery sores; it healeth the chaps and clifts in any part of the body, the vlcers of the secret parts seruing for generation, any place fretted or galled, new and green vlcers, yea and such as be corrosiue and withall growing to putrefaction: it is singular for the calosities, werts, or hard corns, growing in the nostrills, and all impostumations: moreover, women find great help by drinking it in milke; for any violent shift or immoderat flux of their monthly sickness: the best Indian Licium is known by this,

D That the masse or lump therof is black without forth, red within when it is broken, but soon it commeth to a black colour. An astringent medicine this is, and bitter withall, and hath the same effects which the other Lycium is reported to haue, but specially if it be applied to the priue members of generation. As touching Sarcocolla, some be of opinion that it is the gum or liquor issuing from a certain thorny plant or bush: and they hold, that it resembleth the crums of frankincense, called Pollen or Manna Thuris, & in tast seemeth to be sweetish, & yet quick and sharpe withall. This Sarcocoll stamped with wine, and so applied, represseth all fluxes: & in a liniment good it is for yong infants. This gum also by age and long keeping, waxeth black; but the whiter is the better, & thereby is the goodnesse knowne.

E But before I depart from this treatise of Trees, and their medicinable vertues, I must needs say, we are beholden to them yet for one excellent medicine more, which is called Oporice by the Greeks, as one would say, made of fruits. This composition is singular for the bloody flux or exulceration of the guts; also for the infirmities of the stomack. The manner of making it, is in this wise: Take 5 quinces, with their kernels, seeds & all, as many pomgranats likewise, let them boil gently ouer a soft fire in one gallon of new white wine, put therto the weight or measure or

one sextar of Seruises, and as much in quantity of the Sumach which is called Rhus Syriacum, G together with halfe an ounce of saffron, seeth all these together to the height or consistence of hony. Thus much concerning the properties of trees seruing in Physicke. It remaineth now to annex hereunto a discourse of those plants which the Greeke writers (by giuing them names in some analogie respectiue vnto trees) haue left an ambiguity, and made vs doubt of them whether they be trees or herbs.

CHAP. XV.

¶ Of * Chamædrys, i. Germander : * Chamædaphne, i. Lawrell : * Chamæla : * Chamæsyce : * Chamæcissos, i. Alc-boone : * Chamæleuce, i. Fole-foot : * Chamæpeuce : * Chamæcyparissos, i. Lauander-cotton : * Ampeloprasos : Stachys : Clinopodium, Centunculus, and Clematis Egyptia, with the medicines that they afford.

* ground-oke, or petite oke.
* ground-bay, or petty Lawrell.
* ground-oliue, &c.
* ground fig-tree, &c.
* ground Iuic.
* ground Poplar.
* ground-pine, or Patch tree.
* ground Cypress.
* Portet vine, or i. ceeke vine.

Germander is an herb, called in Greeke Chamædrys, and in Latine Triffago: some haue named it Chamædrope, others Teucrion: it beareth leaues for bignes resembling mints, in colour like vnto the oke leaues, cut and indented also after the same maner. Of some it is called Serrata; and they affirme that the first pattern of a saw was taken from the leafe of this herb, whereupon it should be so called. The floure beareth much vpon the purple colour: it lo- ueth to grow in stony places, and would be gathered while it is full of iuice: and thus gathered in due season, whether it be taken in drink, or taken outwardly in a liniment, most effectuall it is in due season, whether it be taken in drink, or taken outwardly in a liniment, most effectuall it is I against the poison of serpents: likewise it is wholesome for the stomack, good against an inueterat cough; singular to cut, dissolue, and raise the tough fleam sticking in the throat: a special remedy for ruptures, convulsions, and pleurisies: it waneth away the ouergrown spleen: it prouokes vrine, and womens fleurs: in which regard, a bundle or handfull of Germander boiled in 3 he- mines of water, vntill a third part be consumed, maketh a soueraigne decoction or drinke for those who are newly faine into a dropsie. Some there be, who stamp this herb and sprinkle water among, and so reduce it into trochs.ouer and besides the vertues before rehearsed, it is good to heale botches newly broken and full of matter; yea old vlcers, though they be filthy and pu- trified, if it be applied thereto: for the spleen, it is vntually taken with vineger: & this iuice doth chaufe and heat those parts which be annointed therewith.

As touching Lawrell, called by the Greekes Chamædaphne, it ariseth vp with one only stem of a cubit high or thereabout: the leaues are but smal, howbeit like to those of the Lawrell: it bringeth forth a reddish seed appearing among the leaues, which being vsed in a liniment fresh and green, caseth the head-ach. The same cooleth all excessive heats: and if it be drunk in wine, appeaseth the wrings and torments of the belly. The iuice thereof taken in drink, drawes downe womens fleurs, and prouokes vrine: the same applied in wooll to the naturall parts of a woman, causeth her to be soon deliuered when she is in hard trauell or child-birth.

* otherwise called Merg- reon, Widow wail.

As for * Chamæla, it hath leaues like vnto those of the oliue: the same be bitter in tast, and in smell odoriferous. This plant groweth in stony grounds, and exceedeth not in heighth a hand- breadth or span at most; a purgatiue herb it is; for thereof is made an excellent syrrop to eua- L breath or span at most; a purgatiue herb it is; for thereof is made an excellent syrrop to eua- breath or span at most; a purgatiue herb it is; for thereof is made an excellent syrrop to eua- breath or span at most; a purgatiue herb it is; for thereof is made an excellent syrrop to eua-

As for * Chamæsyce beareth leaues resembling those of the Lentil, but they alwaies creep along the ground and rise not vp. This herbe groweth in drie and stony grounds: the same boiled in wine and vsed as a liniment vnto the eies, cleareth their sight; for it is singular to dispatch and re- moue catarracts, suffusions, and cicatrices, growing therein: as also to rid away the misty clouds and films that ouercast the sight. Being put vp into the matrice within a linnen cloath in man- ner of a pessarie, it allaieth the paines thereof. VVarts of all sorts it taketh away, if they be an- nointed

A nointed therewith. It is a soueraigne remedy also for those who cannot take their wind but sit- ting vpright.

* Chamæcissos groweth vp spiked with an ear like vnto wheat, and ordinarily putteth forth fiue branches, and those full of leaues. VVhen it sheweth in the floure, a man would take it to be the * white Violet or Gilloffe. The root is but small. They that are troubled with the Sciat- ca, vse to drinke the leaues thereof to the weight of three oboli in two cyaths of wine, for seuen daies together: but it is an exceeding bitter potion.

As for Fole-foot, it is called in Greeke Chamæleuce: but we in Latine name it Farranum or Farfugium. It loueth to grow by riuers sides. The leaues somewhat resemble those of the Pop- lar, but that they be larger. If the root of Fole-foot be burnt vpon the coles made with Cypres wood, the smoke or perfume thereof receiued or drunk through a pipe or tunnell into the B mouth, is singular for an old cough.

Touching * Chamæpeuce, in lease it is like vnto the Larch-tree: a plant very appropriat to the paine of the back and the loins. The herb Chamæcyparissos, if it be drunk in wine, is singu- lar good against all the venomous stings of serpents and scorpions.

The herb Ampeloprasos groweth in vineyards, bearing leaues resembling Porret: but it cau- seth them to belch soure that eat thereof. Howbeit, of great power it is against the sting of ser- pents. It prouoketh vrine & womens monthly terms. And yet whether it be drunke or applied outwardly, it is passing good for them that pisse blood, & represteth the issue & eruption there- of. Our midwives vse to giue it vnto women newly deliuered and brought to bed: likewise it is found to auail much vnto them that be bitten with mad dogs.

C Morcouer, the herb called Stachys hath a resemblance also to * Porret, but that the leaues be longer and more in number: it yeeldeth a pleasant smell, and the leaues be of a pale colour, in- clining somewhat to yellow. The nature of this plant is to moue the monethly purgation of wo- men. As for Clinopodium (called otherwise Cleonicion, Zopyron, & Ocymoeides) like it is to running wilde Thyme, and full of branches, growing vp a span or handfull high at the least. It groweth in stony places, with a spoky tuft of floures shewing in a round compasse, and for all the world resembleth the feet or pillars that * beare vp a table or bed. This herb taken in drinke is good for convulsions, ruptures, strangueries, and serpents stings. So is the syrrop or juleb that is made thereof, by way of decoction. Thus much of those herbs, which in name carry a shew and resemblance of trees.

D It remaineth now to write of some other herbs, which I must needs say are of no great name and reckoning, howbeit such as be indued with wonderfull vertues. As for the famous and nota- ble herbs indeed, I will reserve the treatise of them for the books following. And first I meet with that which we in Italy call Centunculus, but the Greekes Clematis, with leaues pointed like the beak of a bird, or resembling the cape of a cloke, growing close to the ground in toiled corn fields. This herbe is most effectuall and singular about all other, for to stay a laske, if it be drunk in some red or green hard wine. The same beaten into powder, and taken to the weight of one denier Roman, in fiue cyaths of Oxy mell or hot water, stancheth bleeding: and yet in that fort it is of great effect to fetch away the after-birth of women lately deliuered.

E But there be other herbes among the Greeke writers, going vnder the name of Clematides, and namely one, which some call Echites, others Lagines, and there are besides who name it Pe- ty Scammonie, and in very truth, branches it hath a foot long, full of leaues, and not vnlike vnto those of Scammonie, but that the leaues be more black or dusky and smaller. This herbe is found as well in vineyards as corne lands. People vse to eat this herb with oile and salt, as they do Beets, Coles, and other such pot-herbs: and so eaten, it maketh the body soluble. And yet ne- uertheless, those who be troubled with the bloudy flux, are wont to take it in some asfringent wine with Lineseed, and find it to work with good successe. The leaues applied to the eies with parched Barly groats, do re straine the waterish humors which fall thither, so there be a fine lin- nen cloth wet * between. The same applied in a pulstesse to the wens called the kings euil, bring- ing them first to suppuration, and afterwards hauing hogs greafe put thereto, heale them throughly. F Incorporat with green oile Oliue, they ease the hemorrhoids: and with honey, helpe those that be in a Phthisicke or Consumption. If nourses eat them with their meat, they shall haue good store of milke in their breasts. And if they annoint therewith the heads of their young infants, the haire will come the thicker. A collution made with them and vineger, assuageth the tooth- ach,

* It is not our ground Iuic or Alchove.
* Viola alba.

* Some take it for Chamæ- pity.

* ocymoeides, i. Por- ri: but it seems that Pliny should haue read ocymoeides, i. Marryb, or Horehound, out of Diosco- rides, as Ronde- leius hath ob- serued.

* Whereupon it took the name Clinopodium.

* Suppositio: some reade contrariwise, Superpositio.

is a most excellent wound-hearb. And it is auouched by the people of that country, That if an Oxe chance to haue his strings or sinews cut quite atwithe the plough-share, this hearb will conglutinat and soulder them againe, if it be made into a saluie with swines greafe.

Concerning bastard Navew, called in Greeke Pseudo Bunion, it hath the leaues of Navew gentle, and brancheth to the height of a hand bredth or span. The best of this kind groweth in the Isle Candy, where they vse to drink five or six branches thereof for the wringing torments of the belly, for the strangury, the pain of the sides, midriffe, and precordiall parts.

Myrrhis, which some call Smyrrhiza, others Myrrha, is passing like vnto Hemlocke, in stalle, leaues, and floure; only it is smaller and slenderer, and hath no ill grace and vnpleasant tast to be eaten with meats. Taken in wine, it hasteneth the monthly course of womens fleurs if they bee too slow, and helpeth them in labour to speedy deliuerance. It is said moreouer, that in time of a plague it is wholsom to drink it for feare of infection. A supping or broth made of it helpeth those who are in a Phrysicke or consumption. This good property it hath besides, to stir vp a quick appetite to meat. It doth extinguish and kill the venome inflicted by the sting or pricke of the venomous spiders Phalangia. The juice drawn out of this herb after it hath been infused or soaked three daies together in water, healeth any sore breaking out either in face or head.

Finally, Onobrychis carierh leaues resembling Lentils, but that they are somewhat longer: it beareth also a red floure; but refeth vpon a small and slender root. It groweth about springs and fountains. Being dried and reduced into a floure or powder, it maketh an end of the strangury, so it be drunk in a cup of white wine well strewed and spiced therewith. It stoppeth a lask. To conclude, the juice thereof causeth them to sweat freely who are annoiued all ouer with it.

CHAP. XVII.

¶ The medicinall vertues of Coriacesia, Callicia, and Menais, with three and twentie other herbes, which some hold to be Magicall. Moreouer, of Considia, and Aproxis, besides some other which are renewed and in request againe, hauing been long time out of vse.

TO discharge and acquit my selfe of the promise which I made of strange and wonderfull herbs, I cannot chuse but in this place write a little of those which the Magitians make such reckoning of. For can there be any more admirable than they? And in very truth, Democritus and Pythagoras, following the traicts of the said wise men and Magitians, were the first Philosophers, who in this part of the world set those herbs on foot, and brought them into a name.

And to begin with Coriacesia and Callicia. Pythagoras affirmeth, That these two herbes will cause water to gather it to an yce. I find no mention at all in any other authors, of these hearbes, neither doth he report more properties of them.

The same author writes of an herb called Menais, known also by the name of Corinthas, the juice whereof (by his saying) it be sodden in water, presently cureth the sting of serpents, if the place be fomented with the said decoction. He affirmeth moreouer, that if the said juice or the liquor be poured vpon the grasse, whosoever fortuneth to go thereupon, and touch it with the sole of the foot, or otherwise chance to be but dashed or sprinkled therewith, shall die therupon remediless, and no way there is to escape the mischief. A monstrous thing to report, that this juice should be so rank a venome as it is, vnlesse it be used against poison.

The selfe same Pythagoras speaketh yet of another herb which hee calleth Aproxis: the root whereof is of this nature, to catch fire a tarre off, like for all the world to Naphtha, concerning which, I haue written somewhat already in my discourse as touching the wonders of Nature: and he reporteth moreouer, That if a man or woman happen to be secke of any disease, at what time he reporteth moreouer, That if a man or woman be thoroughly cured of it, yet shall they haue as this Aproxis is in the floure, although he or she be throughly cured of it, yet shall they haue a grudging or minding thereof as often as it falleth to floure againe yeare by yeare. And of this opinion he is besides, That Frumenty corne, Hemlock, and Violets, are of the same nature and property. I am not ignorant, that this booke of his wherein these strange reports are recorded, some haue ascribed vnto Cleompurus, a renowned Physitian: but the currant fame or speech holdeth still so constantly, time out of mind, that we must needs beleue Pythagoras to be the author of the said booke. True it is indeed, that the name of Pythagoras might giue authority and credit

A dit vnto other mens books attributed to him, if haply any other had laboured and trauelled in compiling some worke, which himselfe judged worthy of such a man as he was: but that Cleompurus should so do, who had set forth other books in his owne name, who would euer beleue? No man doubteth verily, but that the book intituled * Chirocineta, was of Democritus his making: and yet therein be found more monstrous things by a hundred fold, than those which Pythagoras hath deliuered in that worke of his. And to say a truth, setting Pythagoras aside, there was not a Philosopher so much addicted to the schoole and profession of these Magitians, as was Democritus.

In the first place he telleth vs of an herb called Aglaophotis, worthy to be admired & wondered of men, by reason of that most beautifull colour which it had: and for that it grew among the quarries of marble in Arabia, confining vpon the coasts of the realme of Persia, therefore it was also named Marmaritis. And he affirmeth, that the Sages or VVise men of Persia called Magi, vsed this herb when they were minded to coniure and raise vp spirits.

He writeth moreouer, That in a country of India inhabited by the Tardistiles, there is another herb named Achæmenis, growing without leafe, and in colour resembling Amber: of the root of which herb there be certain Trochisks made: whereof they cause malefactors and suspected persons to drink some quantity with wine, in the day time, to the end they should confesse the truth: for in the night following they shall be so haunted with spirits and tormented with fundry fantasies and horrible visions, that they shall be driuen perforce to tel all, and acknowledge the fact for which they are troubled & brought in question. The same writer calleth this plant

C * Hippophobas, because Mares of all other creatures are most fearfull and wary of it.

Furthermore, he reporteth, That 30 Schoenes from the riuier Choaspes in Persia, there groweth an herb named Theombrotion: which for the manifold and sundry colours that it hath, resembleth the painted taile of a Peacocke, and it casteth withall a most sweet and odoriferous sent. This herb (saith he) the Kings of Persia vse in their meats & drinks: and this opinion they haue of it, That it preferueth their bodies from all infirmities and diseases, yea, and keepeth their head so staied and settled, that they shall neuer be troubled in mind and out of their right wits: in such sort, that for the powerfull maiestie of this plant, it is also called Semnion.

He proceedeth moreouer to another, knowne by the name Adamantis, growing onely in Armenia and Cappadocia: which if it be brought neare vnto Lions, they will lie all along vpon their backs, and yawne with their mouths as wide as quer they can. The reason of the name is this, because it cannot possibly be beaten into powder.

He goeth on still and beareth vs in hand, that in the realme Ariana, there is found the herbe Arianis, of the colour of fire. The inhabitants of that country vse to gather it when the Sun is in the signe Leo: and they affirme, that if it do but touch any wood besmeared and rubbed ouer with oile, it will set the same a burning on a light fire.

What should I write of the plant Therionarca, which whensoever it beginneth to come vp and rise out of the ground, all the wilde beasts will lie benumbed and (as it were) dead: neither can they be raised or recovered againe, vntill they be sprinkled with the vrine of Hyæna.

The herb Æthiopis, by his report groweth in Meroe, for which cause it is called also Merois: In leafe it resembleth Lettuce: and being drunk in mead or honied water, there is not such a remedy againe for the drop sicke.

ouer and besides, he speaketh of the plant Ophiusa, found in a country of the same Æthiopia, named Elephantine: of a leaden hue it is, and hideous to see to: whosoever drinke thereof, shall be so frighted with the terrors and menaces of serpents represented vnto their eies, that for very feare they shall lay violent hands on themselves: and therefore church robbers are enforced to drink it. Howbeit, if a man take after it a draught of Date wine, he shall not be troubled with any such fearfull visions and illusions.

Moreouer, there is found (saith Democritus) the herbe Thalassiegle about the riuier Indus, and thereupon is knowne by another name Potamantis: which if men or women take in drink, transporteth their senses so far out of the way, that they shall imagine they see strange sights.

As for Theangelis, which by his saying groweth vpon mount Libanon in Syria, and vpon Dicte, a mountain in Candy, also about Babylon and Susis in Persia; if the wise Phylosophers (whom they term Magi) drinke of that herb, they shall incontinently haue the spirit of prophesie, and foretell things to come.

There

There is besides in the region called Baetiana & about the riuer Borysthenes, another strange plant named Gelotophyllis, which (by his report) if one do drink with Myrrh and wine, it will cause many fantastical apparitions: and the party shal therupon fall into a fit of laughter without ceasing and intermission, and neuer giue ouer, vnlesse it be with a draught of Datewine, wherein were tempered the kernels of Pine nuts together with pepper and honey.

Touching the herb of good fellowship, Syssitieteris, found in Persis, it tooke that name because it maketh them exceeding mery who are met together at a feast. They call the same herb likewise Protomedia, for that it is so highly esteemed among kings and princes. And another name it hath besides, to wit, * Acafignete, because it commeth vp alone & no other herbs neere vnto it: yea, and one more yet, namely, Dionysymphas, because wine and it fort so well together, and make as it were a good mariage.

The same Democritus talketh also of Helianthe: an herb leaued like to the Myrtle, growing in the country Themiscyra, and the mountains of Cilicia, coasting along the sea. And he giues out, that if it be boiled with Lions greafe, and then together with Saffron and Date wine reduced into an ointment, the foresaid Magi and the Persian kings therewith annoint themselves, to seem thereby more pleasant and amiable to the people: which is the reason, that the same herb is called Heliocallis.

Ouer and besides, he maketh mention of Hermefias (for so he termeth not an herb but a certain composition) singular for the getting of children, which shall proue faire, and of good nature besides. Made it is of Pine nut kernels, stamped and incorporat with hony, Myrrh, Saffron, and Date wine, with an addition afterwards of the hearbe Theombrötium and milke: and this confection he preferibeth to be drunk by the man a little before the very act of generation; but by women vpon their conception, yea, and after their deliuey all the while they be nourses and giue suck: and in so doing they may be assured, those children of theirs, thus gotten, bred, and reared, shall be passing faire and well fauoured, of an excellent spirit and courage: and in one word, euery way good. Of all these herbes before specified, he setteth down also the very names which the said Magi call them by. Thus much for the Magicke herbes found in Democritus his booke.

Apollodorus, one of his disciples and followers, comes in with his two herbes to the other before named. The one he calleth *Æschynomene*, because it draweth in the leaues, if one come neare vnto it with the hand: the other *Groëis*, which if the venomous spiders *Phalangia* do but touch, they will die vpon it.

Crates writeth of an herb called *Oenotheris*, which being put in wine, if any sauage beasts be sprinkled therewith, they will become tame, gentle and tractable.

A famous * Grammarian of late daies made mention of another herb *Anacamperos*, of this vertue, That if a man touched a woman therewith, were she departed from him in all the hatred that might be, she should come again and loue him entirely. The same benefit also should the woman find thereby, in winning the loue of a man. This may suffice for the present to haue written of these wonderfull Magicke herbes, considering that I meane to discourse more at large of them and their superstition, in a more conuenient place.

CHAP. XVIII.

¶ Of *Eriphia*, *Lanaria*, and *Stratiotes*, with the medicines which they yeeld.

Many writers haue made mention of *Eriphia*. This herb hath within the straw of the stem a certain flie like a beetle, running vp and down, and by that meanes making a noise like vnto a yong kid, whereupon it tooke the foresaid name. There is no a better thing in the world for the voice, than this herb, as folk say.

The herb *Lanaria*, giuen to ewes in a morning when they are fasting, causeth their vdders to strouit with milk. Lactoris likewise is a common herb and as well known, by reason that it is full of milk, which causeth vomit, if one tast thereof neuer so little. Some there be who say, that the herb which they call * *Militaris*, is all one with this *Lactoris*: others would haue it to be very like vnto it, and that it should haue that name, because there is not a wound made with sword or edged weapon, but it healeth it within five daies, in case it be applied thereto with oile.

Sensibly, the Greek writers make great reckoning of their * *Stratiotes*: but this hearbe groweth

groweth onely in Egypt, and namely in floten grounds where the riuer Nilus hath ouerflowed: and like it is vnto Sengreen or Houlleek, but that it hath bigger leaues. It is exceeding refrigeratiue; and a great healer of green wounds, being made into a liniment with vinegar: moreover it cureth *S. Anthones* fire, and all apostumes which are broken and run matter: if it be taken in drinke with the male Frankincense, it is wonderfull to see how effectually it is to repress the flux of blood from the reins.

CHAP. XIX.

¶ Of the herbes that grow vpon the head and chapter of Images and Statues. Of herbes found in riuers. Of the herb called *Lingua*. Of herbes growing through a sieve, and vpon dung-hills. Of *Rhodora* and *Impia*, two herbes. Of *Pecten Veneris*. Of *Nodia*. Of *Clauers*, or Goose-grasse, called otherwise *Philanthropos*. Of the little *Bur nam*. d *Canaria*: of *Tordile*. Of the ordinarie *Goich-grasse*, *Stitchwort*, or *Dent-de-chien*. Of the hearbe *Dactylus*, and *Fenigreeke*: with their medicinal vertues.

It is commonly said, That the herbes or weeds growing vpon the head of any statue or Image, presently allay the head-ach (if they be gathered in the lappet or any part of some garment)

so as the Patient weare them tied about the necke, by red linnen thread, or infolded within some red linnen clout. Any herb whatsoever gathered out of some riuer, brook, or great riuer, before the Sun rising, so as no man see the party during the time of the gathering, provided alwaies that it be tied to the left arm of the sick Patient, and he or she not know what it is, driues away any tertian ague, if it be true which is commonly said. There is an herbe growing about fountains, called *Lingua*, i. a Tongue: the root therof being burnt into ashes, & incorporat with the grease of a swine (but you must look, say they, that the swine be black and barraine) causeth haire to come againe, in case the place which is bare & bald, be annointed therewith in the sun. Cast a sieve or riddle forth into any beaten path or high way, the grasse or weeds comming vp vnderneath, and growing through the same, if they be gathered and bound about the neck or any other part of women with childe, doe hasten their trauell and deliuey. Those herbes which be found growing vpon muckhills, about country farms, are passing good and effectual for the squinancy, if they be drunk with water. The grasse or hearb neere vnto which a dog lifts vp his leg and pisseth, if it be plucked out of the ground without touching knife or yron instrument, cureth any dislocation or bone out of joint, most speedily.

Touching the tree (in manner of an *Opiet* or *Poplar*) called *Rumbotinus*, I haue described it in my treatise of Hortyards and Tree-plots. Neare to one of these (and namely, when there is no vine coupled or married to it) there groweth a certain herb, which in France they call *Rhodora*: it riseth vp with a stem pointed and knotted in manner of a fig tree rod or wand; beareth leaues resembling nettles, somewhat whitish in the mids, but the same in proesse of time become red all ouer; and a floure of siluer colour: this herb stamped and mixed with old hogs greafe, makes a soveraigne liniment for all swellings, inflammations, and impostumes gathering to an head; provided alwaies that no edge toole come neare to touch it, and that the party who is dressed or annointed therewith turn the head to the right hand, and spit thrice vpon the ground on that side. And the operation of this medicine will be the more effectual, if three sundry men of three diuers nations, stand on the right hand when they annoint the Patient.

Concerning the herb *Impia*, which is of a hoary colour and white withall, it resembleth in shew the *Rosemary*, rising vp with a main stem, leaved and headed in manner of a *Cole-stocke*: from which principall body, there grow forth other small branches, every one bearing little tufts or heads rising and mounting about the mother stocke (whereupon they called it in Latine *Impia*, for that the children ouer-topped their parents) yet there be others who haue thought it rather so called because there is no beast wil touch or tast it. This herb, if it be ground between two stones, waxeth as hot as fire, & yeeldeth a iuice which is excellent for the squinancy, if the same be tempered with milke and wine. But this is strange that is reported moreover, namely, That whosoever hath once tasted of this hearb, shall neuer be troubled with that disease; and therefore they vse to giue it in wash and swill, to swine: but look which of them refuse to drinke of this medicine, shal die of the said squinancy. Some are of opinion, That in birds nests there is some of this hearbe commonly set and twisted among other stickes, whereby it commeth to

T

passe

* As one would say, without brother or sister.

* Apion called also *Plethionics*.

* The foulders hearbe.

* All one with *Militaris*.

pasſe that the yong birds neuer be choked, gobble they their meat as greedily as they will.

As touching the herb called Veneris Peſten, which took that name of the reſemblance that the long cods thereof hath to combe or rake teeth: the root, if it be ſtamped with mallowes, and ſo reduced into a cataplaſme, draweth forth all ſpils, thornes, or what ſoeuer ſticketh within the fleſh. The herb * Exedum, is ſingular to cure the lethargy, and all drowſineſſe.

* It ſeemeth by name and effect, to be of ſome therpe and ſtrengthening quality.

* Groſſe-graſſe, or Cluſters.

As for Nodia, it is an herb well knowne in curriers ſhops. They call it alſo Mularis, & other names beſides they haue for it: but tearme it how you will, it healeth corroſiue vlcers: and I find that it is of ſingular operation againſt the poiſon of ſcorpions, if it be drunk in wine or oxycrat, (i.) vineger and water mingled together. There is a certaine rough and prickly herbe, which the Greeks call by a pretty name * Philanthropos, for that it ſticketh to folks cloaths as they paſſe by. A chaplet or guirland made of this herb, and ſet vpon the head, eaſeth the pain thereof. As for the little Bur called Lappa Canaria, if it be ſtamped with Plantaine and Millefoile, and together with them conſecrated in wine, it healeth all cancerous ſores, ſo it be applied vnto the place, and removed once in three daies. The ſame herb digged forth of the ground without any ſpade or yron inſtrument, cureth ſwine, if it be put into the trough where they bee ſerued with draſſe and ſwill, or giuen them in milk and wine. Some adde moreouer, that this charm muſt be ſaid in the digging, *Hæc eſt herba Argemon, quam Minerva reperit ſuis remedium, qui de illa uſauerint*: (i.) This is the herb Argemon, which Minerva inuented as a remedy for diſeaſed ſwine, as many as taſted thereof.

As for Tordile, ſome haue ſaid that it is the ſeed of Sefeli, or Siler of Candy: others take it to be an herb by it ſelfe, which alſo they called Syreon: for mine own part, I find by my reading nothing of it, but that it delighteth to grow vpon mountains; and that being burnt, it is good to be drunke for to prouoke womens monethly terms, and to expectorat the ſuperfluous ſleame out of the breſt: for which purpoſes (they ſay) that the root is more effectually in operation: alſo that the iuice thereof taken in drink to the weight of three oboli, is ſingular for the reins: finally, that the root is one of the ingredients which go to the making of emolliuue plaſters or cataplaſmes.

The Quich-graſſe, otherwiſe named Dent-de-chien, or Dogs-graſſe, is the commoneſt herbe that groweth: it runneth & creepeth within the earth by many knots or ioints in the root, from which, as alſo from the branches and top-ſprigs trailing aboue ground, it putteth forth new roots and ſpreadeth into many branches. In all other parts of the world, the leaues of this graſſe grow ſlender and ſharp pointed toward the end: only vpon the mount Pernaſſus (whereupon it is called Gramen Pernaſſi) it brancheth thicker than in other places, and reſembleth in ſome ſort Ivie, bearing a white floure, and the ſame odoriferous. There is not a graſſe in the field whereon horſes take more delight to feed, than this, whether it be greene as it groweth, or dry and made into hay, eſpecially if it be giuen them ſomewhat ſprinkled with water. Moreouer, it is ſaid, that the inhabitants about the ſoſeſaid mount Pernaſſus, do draw a iuice out of this graſſe, uſed much to increaſe plenty of milk; for ſweet and pleaſant it is: but in other parts of the world, in ſtead thereof, they uſe the decoction of the common graſſe, for to conglutinate wounds: [and yet the very herb it ſelfe in ſubſtance will do as much, if it be but ſtamped and ſo applied: and beſides, a good deſenſatiue it is to keep any place that is cut or hurt, from inflammation.] To the ſaid decoction, ſome put wine and hony: others adde a third part in proportion of Frankincenſe, Pepper, and Myrrhe: and then ſet all ouer the fire againe, and boile it a ſecond time in a pan of braſſe: which compoſition they uſe as a medicine for the tooth-ach and watering eies, occaſioned by the flux of humors thither. The root ſodden in wine, appeaſeth the wrings & torments of the guts; openeth the conduits of the vrine, and giueth it paſſage; beſides, it healeth the vlcers of the bladder, yea, it breaketh the ſtone. But the ſeed is more diureticall, and with greater force driueth downe vrine than the root. And yet it ſtoppeth a laſke, and ſtaieſh vomit. A peculiar vertue it hath againſt the ſting of dragons or ſerpents. Moreover, ſome there be, who giue direction in the cure of the kings euil, and other flat impoſtumes called Pani, to take nine knots or ioints of a root of this graſſe: and if they cannot find one root with ſo many ioints, to take two or three roots, vntill they haue the ſoſeſaid number: which done, to enwrap or fold the ſame in vnwaſhed or greaſie wooll which is black [with this charge by the way, that the party who gathered the ſaid roots be faſting] and then to goe vnto the houſe of the patient that is to be cured, waiting a time when hee is from home: and be ready at his returne to receiue him with theſe

A theſe words three times pronounced, *Ieiunus ieiuno medicamentum do*, [i. I being yet faſting, giue thee a medicine alſo whiles thou art faſting:] and with that, to bind the ſoſeſaid knots & roots vnto the parts affected, and ſo continue this courſe for three daies together. Furthermore, that kind of graſſe which hath ſeuene ioints in the root, neither more nor leſſe, is ſingular for the head ach, and worketh great effects if the Patient carrieth it tied faſt about him. Some Phyſitians do preſcribe for the intollerable pain of the bladder, to take the decoction of this graſſe boyled in wine vnto the conſumption of one halfe, and giue it to drinke vnto the Patient, preſently vpon the coming out of the baine or hot houſe.

Touching the graſſe, which by reaſon of the pricks that it beares is named Aculeatum, there be three ſorts of it: the firſt is that which ordinarily hath ſue ſuch pricks in the head or top thereof, and thereupon they call it Penta Daſtylon, the five finger graſſe: theſe pricks when

B they be wound together, they uſe to put vp into the noſthrills, and draw them downe again, for to make the noſe bleed. The ſecond is like to * Sengreen or Houſleek: ſingular good it is for the whitſlows, and excreſcences or rungs vp of the fleſh about the naile roots, if it be incorporat into a liniment with hogs greaſe: and this graſſe they call Daſtylus, becauſe it is a medicine for the fingers. * The third kind named likewise Daſtylos, but ſmaller than the other, groweth vpon old decayed wals or tyle houſes: this is of a cautick & burning nature, good to repreſſe the canker in running and corroſiue vlcers. Generally, a chaplet made of the herbe Gramen or Dogs-graſſe, and worn vpon the head, ſtancheth bleeding at the noſe. The Gramen that groweth along the high waies in the country about Babylon, is ſaid to kill camels that graſe vpon it.

C Fenigreeke cometh not behind the other herbs before ſpecified, in credit and account for the vertues which it hath: the Greeks call it Telus and Carphos: ſome name it Buceras and Aegoceras, for that the * ſeed reſembleth little hornes: we in Latine tearme it Silicia or Siliqua. The manner of ſowing it, I haue declared in due place ſufficiently. The vertues thereof, is to dry, mollifie, and reſolue: the iuice drawne out of it after the decoction, is right ſoueraigne for many infirmities and diſeaſes incident to women, and namely in the naturall parts, whether the matrice haue a ſchirre in it and be hard or ſwolne, or whether the necke thereof be drawne too ſtreight and narrow: for which purpoſes, it is to be uſed by way of fomentation, inſeſſion, or bath; alſo by inſuſion or inſeſſion with the metrenchyte. Very proper it is to extenuate the ſcurf or ſcales like dandruffe, appearing in the viſage: being ſodden and applied together with ſalnitre, it helpeth the diſeaſe of the ſpleen. The like effect it hath with vineger: and being boyled therein, it is good for the liuer: for ſuch women as haue painful trauel in child-birth, & be hardly deliuered. Diocles appointed Fenigreek ſeed to the quantity of one acetable, to be giuen in nine cyaths of wine cuit for three draughts: with this direction, that the woman firſt ſhould take one third part of this drink, and then go to a hot bath, and whiles ſhe were ſweating therein, to drink one halfe of that which was left: and preſently after ſhe is out of the bain, ſup off the reſt. And he ſaith there is not the like medicine to be found in this caſe, when all others will take no effect. The floure or meale of Fenigreek ſeed boyled in mead or honied water, together with barley or Linſeed is ſingular for the paine of the matrice, either applied to the ſhare in manner of a cataplaſme, or put vp into the naturall parts as a peſſary, according as the abouenamed Diocles ſaith: who was wont likewise to cure the leproy or S. Magnus euil; to clenſe & mundifie the ſkin, of freckles & pimples, with a liniment made with the ſoſeſaid floure incorporat with the like quantity of brimſtone: with this charge, to prepare the ſkin by rubbing it with ſalnitre, before the ſaid ointment were uſed, and then to annoint it oftentimes in a day. Theodoros uſed to mixe with Fenigreek a fourth part of the ſeed of garden creſſes wel clenſed, & to temper them in the ſtrongeſt vineger that he could come by, which he took to be an excellent medicine for the leproſie. Damion ordained to make a drink with half an acetable of Fenigreek ſeed put into 9 cyaths of cuit or ſheere water, and ſo to giue it ſo prouoking of womens flours: & no man doubts but the decoction of Fenigreeke is moſt whoſome for the matrice and the exulceration of the guts: like as the ſeed it ſelfe is excellent for the ioints & precordial parts about the heart. But in caſe it be boyled with Mallows, it is good for the matrice & guts, ſo there be put to the ſaid decoction ſome honied wine, & then giuen in drink: for euen the very vapor or ſume of the ſaid decoction doth much good to thoſe parts. Alſo the decoction of Fenigreeke ſeed rectifieth the ſinking rank ſmel of the arm-pits, if they be waſhed therewith. The floure made of Fenigreeke ſeed, incorporat with nitre & wine, quickly clenſeth the head of ſcurf, ſcales, & dandruffe. But

* Some take this to be *Paronychia*, *Dioſ.* or rather a kind of *Azizoon*, *Monic*, *tail*, or *Prick*, *madam*.

* This is thought to be *Riva* *Stone*, *crep.* w d *Purcellane*, or *Wall-pepper*. * Or rather the cods wherein the ſeed is enclosed.

boiled in hydromell (i. honyed water) and brought into a liniment with hogs grease, it cureth the swelling and inflammation of the members seruing to generation: likewise it is singular for the broad and flat apostems called Pani, the swelling kernels and inflammations behinde the ears, the gout as well of the feet as of the hands and other joints; also the putrifaction of the flesh ready to depart from the bone: and being incorporat in vineger, it helpeth dislocations: being boiled in vineger and hony only, it serueth as a good liniment for the spleen: and tempered with wine, it clenfeth or mundifieth cancerous sores; but put thereto hony, it healeth them thoroughly in a short time. The said floure of Fenigreeke feed taken in a broth or supping, is an approued remedy for an vlcer within the brest, and any inueterat cough; but it asketh long seeing, euen vntill it haue lost the bitteresse: and afterwards hony is put thereto, and then it is a singular grewell for the infirmities before said. Thus you see what may be said of those hearbes which are in comparifon but of a mean account: it remaineth now to discourse of those which are of more account and estimation than the rest.



THE TWENTY FIFTH BOOKE OF THE HISTORIE OF NATVRE,

WRITTEN BY C. PLINIVS
SECVNDVS.

CHAP. I.

¶ The nature and properties of Hearbes growing wild and of their owne accord.

NHEN I consider the excellency of such hearbes, whereof now I am to treat, and which the earth seemeth to haue brought forth onely for the vse of Physick, I cannot chuse but grow withall into a wonderfull admiration of the great industry and careful diligence of our Antients before time, who haue made experiments of all things, and lest nothing vntried: neither reserued they afterwards this hidden knowledge to themselves, nor concealed ought, but were willing to communicate the same vnto posteritie for their good and benefit: but we contrariwise in these daies, are desirous to keep secret and to suppress the labors of other men; yea and to defraud the world of those commodities which haue been purchased by the sweat of other mens browes: for verily we see, it is an ordinary course, that such as haue attained to some knowledge, envie that little skil vnto their neighbours: and to keepe all forsooth to themselves and teach none their cunning, they thinke the onely way to winne a great name and opinion of some deepe and profound learning. And so far be we off from deuising new inuentions, and imparting the same to the generall profit of mankind, that for this long time men of great wit and high conceit haue studied and practised to compasse this one point, That the good deeds of their Ancestours might with themselves die and be buried for euer. But certes, wee see and know, that the seuerall inuentions of some one thing or other, haue caused diuers men in old time to be canonized as gods: in such sort, as their memoriall hath bene eternized by the names euen of hearbes which they found out: so thankefull was the age in insuing, as to recognize and acknowledge a benefit from them received, and by this meanes (in some measure) to make recompence. This care and industrie of theirs, if it had bene employed in Domestickall Plants neere home, which either for pleasure and delight, or else for the Kitchen and Table, are set and sowed, could not haue bene so rare and wonderfull: but they

A they spared not to climbe vp the top of high mountaines, and to rocks vnaccessible; to trauell through blind and vnpeopled deserts, to search euery veine and corner of the earth, & all to find and know the vertues of herbs: of what operation the root was, for what diseases the leaues were to be vsed; yea, and to make wholsom medicines for mans health of those simples, which the verry four-footed beasts of the field neuer fed vpon, nor once touched.

CHAP. II.

¶ The Latine Authors who haue written of herbs, and their natures. At what time the knowledge of Simples began to be practised and professed in Rome. The first Greeke writers who trauelled in this Argument. The inuention of herbs. The antient Physicke, and the manner of curing diseases in old time. What is the cause that Simples are not now so much vsed for remedies of diseases as they haue bin. Finally, of the sweet Brier or Eglantine, and the herb Dragons, with their medicinal vertues.

WHE Romans haue bin more slack and negligent in this behalfe than was becoming vs, considering how otherwise, there was not a nation in the world more apprehentive of all vertues and things profitable to this life, than ours. For to say a truth, M. Cato (that famous clerke and great professor, so well seen in all good Arts and Sciences) was the first (and for a long time the only author) who wrote of Simples: and howsoever he handled that argument but briefly and summarily, yet he omitted not the leech-craft belonging also to kine and oxen. Long after him, C. Valgius (a noble gentleman of Rome, & a man of approued literature) compiled a treatise of Simples, which he left vnperfect, howbeit he dedicated the book to Augustus Caesar the Emperor, as may appeare by a preface by him begun, wherein (after a religious and ceremonious manner of supplication) he seemeth to beseech the said prince, That it might please his Majesty especially, to cure all the maladies of mankind. And before his time, the only man among our Latines (as far as euer I could find) who wrote of Simples, was Pompeius Lenaxus, the vassall or freed man of Pompey the Great. And this was the first time that the knowledge of this kind of learning was set on foot and professed at Rome. For Mithridates (the most mightie and puissant king in that age, whose fortune notwithstanding was to be vanquished and subdued by Pompey) was well knowne vnto the world not only by the fame that went of him, but also by good prooffe and euident arguments, to haue bin of all other before his time, a prince most addicted to the publick benefit of all mankind: for the only man he was who deuised to drinke poison euery day (hauing taken his preseruatiues before) to the end that by the ordinary vse and continuall custome thereof, it might be familiar vnto his nature, and harmlesse. The first he was also who deuised sundry kinds of antidotes or counterpoisons, whereof one retaineth his name to this day: he it was also and none but he, as men thinke, who first mingled in the said antidotes and preseruatiues, the blood of Ducks bred in his own realme of Pontus, for that they fed and liued there, of poisons and venomous hearbs. Vnto him, that famous and renowned professor in Physicke Asclepiades, dedicated his books now extant: for this Physitian being solicited to repaire vnto him from Rome, sent the rules of Physick digested into order, and set downe in writing, instead of comming himselfe. And Mithridates it was (as it is for certaine knowne) who alone of all men that euer were, could speake two and twentie languages perfectly; so as for the space of six and fiftie yeares (for so long he reigned) of all those Nations which were vnder his dominion, there neuer came one man to his court, but he communed and parled with him in his own tongue without any truchman or interpreter for the matter. This noble Prince (amongst many other singular gifts that he had, testifying his magnanimitie and incomparable wit) addicted himselfe particularly to the earnest studie of Physicke: and because he would be exquisite and singular therein, he had intelligencers from all parts of his dominions) and those took vp no small part of the whole world) who vpon their knowledge, exhibited vnto him the particular natures and properties of euery simple: by which means, he had a cabinet full of an infinit number of receipts and secrets set down together with their operations & effects, which he kept in his said closet, and left behind him with other rich treasure of his. But Pompey the Great, hauing vnder his hands the whole spoile of this mighty Prince, & meeting in that sackage with those notes abovesaid, gaue commandement vnto his vassall or infranchised seruant the abouenamed Lenaxus (an excellent linguist & most learned grammarian) to translate the same into the

Latine tongue: for which a *St of Pompey*, the whole world was no lesse beholden vnto him, than the common wealth of Rome for the foresaid victorie.ouer & besides these, what Greeke authors haue trauelled in Physicke, I haue declared heretofore in conuenient place. And among the rest, *Euax* a King of the Arabians, wrote a booke as touching the vertues and operations of Simples, which he sent vnto the Emperour *Nero*. *Cratæus* likewise, *Dionysius* also, and *Metrodorus*, wrote of the same Argument after a most pleasant and plauitable manner (I must needs say,) yet so, as a man could picke nothing almost out of all their writings, but an infinit difficultie of the thing: for they painted euery herb in their colors, and vnder their pourtraicts they couched and subscribed their feuerall natures & effects. But what certainty could there be therein? pictures, you know, are deceitfull; also, in representing such a number of colours, and especially expressing the lively hew of Hearbs according to their nature as they grow, no maruell if they that limned and drew them out, did fail and degenarat from the first pattern and originall. Besides, they came far short of the mark, setting out hearbs as they did at one only season (to wit, either in their floure, or in seed time) for they change and alter their form and shape euerie quarter of the yeare. Hereof it came, that all the rest labored to describe their forms & colours, by words only. Some without any description at all of their figure or colour, contented themselves (for the most part) with setting downe their bare names, and thought it sufficient to demonstrate and shew their power and vertue afterwards, to who: ouer were desirous to seeke after the same: and verily the knowledge thereof is no hard matter to attain vnto. For mine own part, it hath bin my good hap to see growing in the plant, all these medicinable herbes (excepting very few) by the meanes of *Antonius Castor* (a right learned and most renowned Physitian in our daies) who had a pretty garden of his own well stored with simples of sundry sorts, which he maintained and cherished for his owne pleasure and his friends, who vsed to come and see his plot, as indeed it was worthy the sight: this Physitian was then about a hundred yeeres old, & in all his life neuer found what sicknesse meant, neither for all this age of his, was his wit decayed, or memory any whit impaired, but continued as fresh still as if he had bin a yong man. But to proceed forward with our discourse: Certes we shall not find a thing as aine which our Ancestors so much admired and were more raiused withall, than the knowledge of simples. True it is, I confesse, that the inuention of the Ephemerides (to fore-know thereby not onely the day & night, with the celypfes of Sun & Moon, but also the very hours) is antient howbeit, the most part of the common people haue bin and are of this opinion (received by tradition) from their forefathers) That all the same is done by inchantments, & that by the means of some forceries and herbes together, both Sun and Moone may be charmed, and inforced both to lose and recover their light: to doe which feat, women are thought to be more skilfull and meet than men. And to say a truth, what a number of fabulous miracles are reported to haue bene wrought by *Medea* queen of Colchis, and other women; and especially by *Circe* our famous witch here in Italy, who for her singular skill that way, was canonized a goddesse. And from hence it came (I suppose) that *Æschylus* a most antient Poet, made report of * Italy to be furnished with herbes of mighty operation: and many others haue spoken much of the mountaine *Circæos* bearing her name, wherein the said Lady sometime dwelt & kept her residence. And for a notable proof of her singular skill in that kind, the same knowledge in some measure continueth vnto this day in the *Marfians* (a nation descended from a son of hers) who are well knowne to haue a naturall power by themselves to tame and conquer all serpents, and not to be subiect to any danger from them. As for *Homer* verily (the father and prince of all learning & learned men, and the best author that we haue of antiquities) howsoeuer otherwise he was addicted to extoll and magnifie dame *Circe*, yet he attributeth vnto Egypt the glory and name for good herbes; yea though in his time there was not that base Egypt watered as now it is, with *Nilus*: for afterwards it grew by the mud left there by the inundation of the said riuer. Truly this Poet maketh mention of many singular herbes in Egypt, which the * Kings wife of that country gaue to that lady of his, *Helena*, of whom he writeth so much; and namely, the noble *Nepenthes*, which had this singular vertue and operation, To work obliuion of melancholy & heauinesse, yea and to procure easement and remission of all sorrowes: which, I say, the queene bestowed vpon *Helena* to this end, That she should communicate and impart it to the whole world for to be drunke in those cases abouesaid. But the first man knowne by all records to haue written any thing exactly and curiously of simples, was *Orpheus*. As for *Museus*, and *Hesiodus* after him, in what admiration they

* Τῆς Ἰταλίας, ὅπου
ἐκφυγασατοὶ οἱ
ἄνθρωποι.

* Polydamna,
ἡ ἑστὶν ἡ γυναῖς
ἡ τοῦ βασιλέως
ἡ τοῦ βασιλέως.
ἡ τοῦ βασιλέως.
ἡ τοῦ βασιλέως.
ἡ τοῦ βασιλέως.
ἡ τοῦ βασιλέως.
ἡ τοῦ βασιλέως.

A held, and how highly they esteemed the herb *Polion* about the rest, I haue shewed already. *Cerres*, *Orpheus* and *Hesiodus* both haue highly commended vnto vs perfumes and suffumigations. And *Homer* likewise writeth expressly of certain herbes by name, of singular vertue, which I will put downe in their due places. After him came *Pythagoras*, a famous Philosopher, who was the first that composed a booke, and made a treatise purposely of sundry herbes, with their diuers effects; ascribing wholly the inuention and originall of them to the immortall gods, and namely, to *Apollo* and *Æsculapius*. *Democritus* compiled a volume of the same argument. But both hee and *Pythagoras* had trauelled before al ouer Persis, Arabia, Ethiopia, and Egypt, and there conferred with the Sages and learned Phylosophers of that country, called *Magi*. In summe, so far were men in old time raiused with the admiration of herbes and their vertues, that they bashed not to auouch euen incredible things of them. *Xanthus* an antient Chronicler, writeth in the first booke of his histories, of a Dragon, which finding one of her little serpents killed, raised it to life again by a certain herbe, which he nameth *Balis*: and with the said herbe, a man also named *Thyle*, whom the Dragon had slaine, was reuiued and restored to health againe. Also King *Tuba* doth report, That there was a man in Arabia, who being once dead, became aliue againe by the vertue of a certain herbe. *Democritus* said, and *Theophrastus* gaue credit to his words, That there is an herb, with which a kind of soule (whereof I haue made mention before) is able to make the wedge or stopple to flie out of the hole of her neast, into which the shepheards had driuen it fast, in case she bring the same herbe, and but once touch the foresaid wedge therewith. These be strange reports and incredible, howbeit they draw men into a wonderfull opinion of the thing, and fill their heads with a deep conceit, forcing them to confesse, That there is some great matter in hearbs, and much true indeed which is reported so wonderfully of them. And from hence it is, that most are of this opinion and hold certainly, That there is nothing impossible, but may be performed by the power of herbes, if a man could reach vnto their vertues: many few there be who haue attained to that felicity: and the operation of most simples is vnknowe. In the number of these, *Herophilus* the renowned Physitian may be reckoned, who was of this mind and gaue it out in his ordinary speech, That some hearbs there were, which were effectuall and did much good, if a man or woman chanced but to tread vpon them vnder their feet. And verily, this hath bin knowne and found true by experience, that some diseases would be more exasperat and angry, yea, and wounds grow to fretting and inflammation, if folk went but ouer certain herbes in the way as they passed on foot. Lo what the Physick in old times was! and how the same lay wholly couched in the Greek language, and not elswhere to be found. But what might be the reason, that there were no more simples knowne? Surely it proceeds from this, That for the most part they be rusticall peasants, and altogether vnlettered, who haue the experience and triall of herbs, as those who alone liue and conuerse among them where they grow. Another thing there is, Men are carelesse and negligent, and loue not to take any paines in seeking for them. Again, euery place swarmeth so with Leeches and Physitians, and men are so ready to run vnto them for to receiue some compound medicine at their hands, that little or no regard there is made of herbes and good Simples. Furthermore, many of them which haue bin found out and knowne, haue no name at all: as for example, that herb which I spake of in my Treatise concerning the cure and remedies of corne growing vpon the lands: and which we all know, if it be entered or buried in the foure corners of the field, will skar away all the foules of the aire, that they shal not settle vpon the corne, nor once come into the ground. But the most difficult and shamefull cause why so few simples in comparison be knowne, is the naughtie nature and peeuish disposition of those persons who will not teach others their skill, as if themselves should lose forever that which they imparted vnto their neighbor. ouer and besides, there is no certain meanes or way to direct vs to the inuention and knowledge of hearbes and their vertues: for if we looke vnto these hearbs which are found already, we are for some of them beholden to meere chance & fortune: and for others (to say a truth) to the immediat reuelation from God. For prooffe hereof, mark but this one instance which I will relate to you. For many a yeare vntill now of late daies, the biting of a mad dog was counted incurable: and looke who were so bitten, they fell into a certain * dread & feare of water: neither could they abide to drink, or to heare talk thereof, and then were they thought to be in a desperat case: it fortun'd of late, that a souldier, one of the gard about the * Pretorium was bitten with a mad dog, and his mother saw a vision in her sleep, giuing (as it were) direction vnto her for to send the root vnto her sonne for

* Τῆς φοβίας.

* ἢ τοῦ πριγκίπου.

*or Lusitania.

*Our common
Dragons.

to drink, of an Eglantine or wild rose (called Cymorrhodon) which the day before she had espied growing in an hortyard, where she took pleasure to behold it. This occurred fel out in * Lacetania, the nearest part vnto vs of Spain. Now, as God would, when the fouldier before said vpon his hurt receiued by the dog, was ready to fall into that symptome of Hydrophobie, and began to feare water; there came a letter from his mother, aduertising him to obey the wil of God and to do according to that which was reuealed vnto her by the vision. Whereupon he dranke the root of the said sweet brier or Eglantine, and not only recovered himselfe beyond all mens expectation: but also afterwards as many as in that case tooke the like receipt, found the same remedy. Before this time, the writers in Physick knew of no medicinable vertue in the Eglantine, but only of the sponge or little ball, growing amid the prickly branches therof, which being burnt and reduced into ashes, and incorporate with honey into a liniment, maketh haire to come againe where it was shed by any infirmity. But seeing I am fallen into the mention of Spain, it cometh to my mind, what I my selfe knew and saw in the same prouince, within the lands and domaines belonging to an host of mine; namely, a certaine plant or herb there lately found called * Dracunculus, which carried a main stem or stalk an inch or thumb thick, beset with spots of sundry colors, resembling those of vipers and serpents: and I was told, that it was a singular remedy against the sting or biting of any serpents. This Dracunculus differeth from another herb of that name, wherof I spake in the book going next before, for this hath a distinct form from that; and besides, another strange and wonderful property, namely, to shew two foot or thereabout aboue ground in the Spring time, when serpents first doe cast their sloughes or skins: & the same is no more seen, at the very time that serpents also retire into their holes and take vp their Winter harbor within the ground. Let this plant be gone once into the earth and hidden, you shal not see a Snake, Adder, or any other serpent stirring abroad. VVherby we may see what a kind and tender mother Nature is vnto vs (if there were nothing els to testifie her loue) in giuing vs warning beforehand of danger: and pointing vnto vs the very time when wee are to be afraid and to take heed of serpents.

CHAP. III.

¶ Of a certain venomous fountaine in Germany: of the hearb Britannica. What diseases they be that put men to the greatest paine.

SO vnfortunat is our condition, and so much exposed are we to manifold calamities, that the search is not pestered with wicked beasts only for to doe vs harme: but also there be otherwhiles venomous waters and pestilent tracts to work vs more wo and misery. In that voiage or expedition which prince *Cesar Germanicus* made into Germany, after he had passed ouer the riuier Rhene, and had giuen order to aduance forward with his army, he incamped vpon the seacoasts along Friseland, where there was to be found but one spring of fresh water; and the same so dangerous, that whosoever drunk of that water, within two yeres lost all their teeth, and were besides so feeble and loose iointed in their knees, that vnneth they were able to stand. These diseases the Physitians termed * Stomacace and Scelytyrbe: as one would say, the malady of the mouth, and palfie of the legs. Yet they found a remedy for these infirmities, and that was a certain herb called * Britannica, which is very medicinable, not only for the accidents of the stomach and mouth, but also for the squinancy and stinging of serpents. It hath leaues growing somewhat long, and those inclining to a brownish or dark greene colour, and the root is blacke; from which, as also from the leaues, there is a juice drawne or pressed. The floures by a peculiar name be called Vibones: which being gathered before any thunder be heard, and so eaten, do assure and secure the parties altogether from that infirmity. The Frisians, nere vnto whom we lay incamped, shewed our men this herb. But I muse much and wonder what should be the reason of that name, vnlesse the Frisians bordering vpon the narrow race of the ocean, which lieth only between them & England (called in those daies Britanica) should therupon for the neighborhood & propinquity of that Island, giue it the name Britannica. For certain it is, that it took not that name because there grew such plenty therof in that country of England, that it should be transported our from thence to our camp; for as yet that Island was not wholly subiect to vs and reduced vnder the Roman seignorie. For an ordinary thing it was in old time practised by those that found out any herbs, to affect the adoption (as it were) of the same, & to call them

* Some thinke this disease to be the Schor-buck or Scorbut, which raiseth yet at this day. * Which is taken to be our Cechlearia, is, soonwert, commonly called Scorbut-grasse or Scorby-grasse.

A by their own names, wherein verily men took no small contentment: according as I purpose to shew by the example of certain kings and princes, whose names liue and continue yet in their herbs: so honorable a thing it was thought in those daies to find and it were but an hearbe that might do good vnto man. Whereas in this age wherein we now liue, I doubt not but there be some who will mock vs for the pains taken in that behalfe, and think vs very simple for writing thus as we do of Simples; so base and contemptible in the eyes of our fine fooles and delicate persons, are euen the best things that serue for the benefit & common vtility of mankind: howbeit, for all that, good reason it is and meet that the authors and inuentors of them, as many as can be found, should be named and praised with the best; yea, and that the operations & effects of such herbs should be digested and reduced into some method, according as they be appropriate to every kind of disease. In the meditation whereof, I cannot chuse nor contain my selfe, but deplore and pity the poore estate and miserable case of man: who ouer and besides the manifold accidents and casualties which may befall vnto him, is otherwise subiect to many thousands of maladies, which we haue much ado to deuise names for, every houre of the day happening as they do, and whereof no man can account himselfe free, but every one is for his part to feare them. Of these diseases so infinit as they be in number, to determine precisely and distinctly which be most grieuous, might seeme meere folly, considering that every one who is sicke for the present, imagineth his owne sicknes to be worst & fullest of anguish. And yet our forefathers haue giuen their judgement in this case, and by experience haue found, That the most extreme pain & torment that a man can indure by any disease, is the Strangury or pissing dropmeale, occasioned by the stone or grauell in the bladder. The next is the grieve and anguish of the stomack and the third, Head-ach: for setting these three maladies aside, lightly there are no pains that can kill a man or woman so soon. And here by the way, I cannot for mine owne part but maruell much at the Greeks, who haue published in their writings venomous and pestilent herbs, as well as those that be good and wholesome. And yet there is an appearance and shew of reason, why some poisons should be knowne: for otherwhiles it falleth out that men liue in such extremity, as better it were to die, than so to lie in anguish and torment; insomuch, as death is the best port and harbor of refuge that they haue. Certes, *Marcus Varro* reporteth of one *Servius Glodius* a gentleman or knight of Rome, who for the extreme pain of the gout, was forced to annoint his legs and feet all ouer with a narcotick or cold poison, whereby hee so mortified the spirits of the muskles and sinews, that he became paralyticke in that part: and euer after vnto his dying day, was rid as well of all fence, as of the paine of the gout. But say, that in these cases it might be tollerable to set down in their books some poisons: what reason, nay what leaue had those Greeks to shew the means how the brains and vnderstanding of men should be intoxicated and troubled? what colour and pretence had they to set downe medicines and receipts to cause women to slip the vntimely fruit of their womb, and a thousand such like casts & deuises that may be practised by herbs of their penning: for mine owne part, I am not for them that would send the conception out of the body vnnaturally before the due time: they shall learne no such receipts of me, neither will I teach any how to temper & spice an amatorious cup, to draw either man or woman into loue, it is no part of my profession. For wel I remember, that *Lucullus* a most braue General, and a captain of great execution, lost his life by such a loue potion. Much lesse then shall ye haue me to write of Magick, witch-craft, charmes, enchantments and forceries, vnlesse it be to giue warning that folk should not meddle with them, or to disproue those courses for their vanities, and principally to giue an Item, how little trust and assurance there is to be had in such trumpery. It sufficeth me and contenteth my mind, yea and I think that I haue done wel for mankind, in recording those herbs which be good and wholesome, found out by men of wit and learning for the benefit of posterity.

CHAP. IIII.

¶ Of Moly, and Dodocatheas: of Paeony, otherwise called Pentorobus or Glycyfide. Of Panaces, *Asclepium*, *Heracium*, and *Chironium*. Of Panaces *Centarium* or *Pharmaceum*. Of *Heracium*, *Siderium*. Of *Henbane* called *Hyojcyamus*, *Apollinaris*, or *Altercagenus*.

Homer is of opinion, That the principall and soueraigne hearb of all others, is Moly; so called (as he thinketh) by the gods themselues. The inuention or finding of this hearbe hee

* ascri-

* *Odysseus*.

* ascribeth vnto *Mercury*; and sheweth that it is singular against the mightiest witchcraft & incantments that be. Some say, that this herb *Moly*, euen according to *Homer's* description, with a round and black bulbous root to the bignesse of an onion, and with a leafe or blade like that of *Squilla*, groweth at this day about the riuer or lake *Peneus* and vpon the mountain *Cylleum* in *Arcadia*; also that it is hard to be digged out of the ground. The Grecian *Simplists* describe this *Moly* with a yellow floure, whereas *Homer* hath written, that it is white. I met with one physician, a skilful Herbarist, who affirmed vnto me, That this *Moly* grew in *Italy* also: and in verie truth he brought and shewed me a plant which came out of *Campaine*, about the digging yf whereof among hard and stony rocks, he had bin certain daies: but get he could not the entire root whole and sound, but was forced to break it off, and yet the root which he shewed mee was thirtie foot long.

Next vnto *Moly* in account and reputation, is that plant which they call *Dodecatheos*, for that it doth represent & comprehend the maiesty of all the chiefe gods. They say if it be drunk in water it is a soueraign medicine for all maladies. Seuen leaues it hath, resembling very much those of *Leſtuce*, and the same spring from a yellow root.

* *Pæon*, who was equall in time to *Hercules*, and lived long before the *Troian* warre.

* *Sesquipedali*. Doſt, i. a foot and halfe.

* I suppose he meaneth the diseases called *Ephialtes* or *Incubus*, i. the night-Mare. * *and*, and *and*, i. a medicine for all griefs; a one would say, All-heale.

As touching *Pæony*, it is one of the first herbs that were euer known and brought to light, as may appeare by the author or inuentor thereof, whose name it beareth still. Some call it *Pentorobos*: others *Glycyde*. [where by the way I am to aduertise the Reader, of the difficulty in the knowledge of herbs by their names, considering that the same herbe hath in sundry places diuers appellations.] But to proceed forward with our *Pæony*: it groweth among bleake and shady mountains, rising vp with a stem between the leaues, * 4 fingers high, and bearing in the top 4 or 5 heads, fashioned somewhat like to *Filberds*, within which there is plenty of seed both red and black. This herb is good against the fantastick illusions of the * *Fauni* which appeare in sleep. It is said, that this herb must be gathered in the night season: for if the *Rainbird*, wood-peck or *Hickway*, called *Picus Martius*, should chance to spie it gathered, he would flie in the face, and be ready to peck out the eyes of him or her that had it.

The herb * *Panace*, promisseth by the very name a remedy of all diseases. A number there be of herbs so called: and all ascribed to some god or other for the inuention of them: for one of them hath the addition of *Aſclepius*, for that *Aſculapius* had a daughter named also *Panacea*. As touching the coneret juice named *Opopanax*, it is drawn from the root of this plant (beeing of the *Ferula* or *Fennell* kind, such as I haue heretofore shewed) by way of incision, the which root hath a thick rind, and of a saltish sauer. When the root is pulled out of the ground, there is a religious ceremony obserued to fill vp the hole again with all sorts of corn, as it were in satisfaction to the earth for the violence offered in tearing it vp. As for the said juice *Opopanax*, where and how it should be made, and which is the best kind thereof and not sophisticat, I haue declared already in my Treatise of forrain and strange plants. That which is brought out of *Macedony*, they call *Bucolicum*, because the Neat-herds of the country mark when the liquor breakes forth and runneth out of it selfe, and so receive and gather it from the plant: this wil not last, but of all the rest sooneſt loseth the force. Moreouer, in all sorts of it, that is rejected principally, which is black and soft; for these be markes to know that it is corrupted; and sophisticat with wax. A second kind there is of *Panaces*, which they call *Heraclium*: the inuention of the vertues and properties whereof is attributed vnto *Hercules*. Some there be who call it *Origanum Heracliticum* the wild, because it is like to *Origan*, whereof I haue heretofore written: but the root of this *Panaces* is good for nothing. A third kind of *Panaces* took the name of *Chiron* the Centaur, who was the first that gaue intelligence of the herbe and the vertues thereof. The leafe is like vnto the *Dock*, but that it is bigger and more hairy: the floure is of a golden yellow color: the root but small: it loueth to grow in rich, fat, and battle grounds. The floure of this *Panaces* is most effectual in Physick: in which regard there is more vse and profit thereof than of all the former kinds. A fourth *Panaces* there is besides, found out also by the same *Chiron*, whereupon it hath the denomination of *Centaureum*: called also it is *Pharnaceum*: the occasion of this two-fold name is this: because there is some controuersie in the first inuention thereof, whiles some attribute to it the Centaur *Chiron*, others to *K. Pharnaces*. This *Panaces* is vsually set and planted, bearing leaues indented in the edges like a saw, and those longer than any of the rest. The root is odoriferous, which they vse to drie in the shadow, and therewith to aromatize their wine, for a pleasant and delectable taste it giueth vnto it. Hereof they haue made two speciall kinds:

* *Crosswort*, *madegon*, & *Thunbrest*.

A kinds: the one with a * thicker leafe: the other with a thinner and smaller.

As for *Heraclion Siderion*, a plant it is also fathered vpon *Hercules*. It riseth vp with a slender stalk to the height of foure fingers, bearing a red floure, and leaues in manner of the *Coriander*. Found it is growing neare to pooles and riuers: and for a wound herb there is not the like, especially if the body be hurt by sword, or any edged weapon made of yron and Steele.

There is a wild Vine, named *Ampelos Chironia*, for that *Chiron* was the first author thereof. Of this plant I haue written in my discourse of Vines [vnder the name of *Vitis Nigra*] like as also of another * herb, which hath the goddesse *Minerva* for the inuentresse.

* *Matricaria* or *Tarthenium*, i. Motherwort.

Moreouer, vnto *Hercules* is ascribed *Henbane*, which the Latines call *Apollibaris*; the Arabians, *Altercum* or *Altercangenon*; but the Greeks, *Hyoscyamus*. Many kinds there be of it: the one beareth black seed, floures standing much vpon purple, and this herb is full of prickles. And in very truth, such is the *Henbane* that groweth in *Galatia*. The common *Henbane* is whiter, and brancheth more than the other: taller also than the *Poppy*. The third kinde bringeth forth seed like vnto the graine of *Iris*. All the sort of these already named, trouble the brain, and put men besides their right wits: besides that, they breed dizziness of the head. As touching the fourth, it carrieth leaues soft, full of down, fuller and fatter than the rest: the seed also is white: & it groweth by the sea-side: Physicians are not afraid to vse this in their compositions, no more than that which hath red seed. Howbeit, otherwhiles this white kinde especially, if it be not thoroughly ripe, proueth to be reddish, and then it is reiected by the Physicians. For otherwise none of them all would be gathered, but when they be fully drie. *Henbane* is of the nature of

C * wine, and therefore offensive to the vnderstanding, and troubleth the head: howbeit, good vse there is both of the seed it selfe as it is in substance, and also of the oile or iuice drawn out of it apart. And yet the stalks, leaues, and roots, are imploied in some purposes. For mine owne part, I hold it to be a dangerous medicine, and not to be vsed but with great heed and discretion. For this is certainly knowne, That if one take in drink more than foure leaues thereof, it will put him beside himself. Notwithstanding the Physicians in old time were of opinion, that if it were drunk in wine, it would driue away an ague. An oile (I say) is made of the seed thereof, which if it be but dropped into the ears, is enough to trouble the brain. But strange it is of this oile, That if it be taken in drink, it serues for a counterpoison. See how industrious men haue bin to proue experiments, and made no end of trying all things, inſomuch as they haue found means and forced very poisons to be remedies.

CHAP. V.

¶ Of *Mercury*, called *Linozostis*, *Parthenium*, *Hermupoa*, or rather, *Mercurialis*: of *Achilleum*, *Panaces*, *Heraclium*, *Sideritis* and *Millefoile*: of *Scopa regia*, *Hemionium*, *Tuccinum*, and *Splenium*: of *Melampodium* or *Elleboe*, and how many kinds there be of it: of the black or white *Elleboe*, & their medicinable vertues: how *Elleboe* is to be giuen, how to be taken, to whom, and when it is not to be giuen: and how it killeth *Mice* and *Rats*.

E THe herb *Mercury*, called by the Greeks *Linozostis* and *Parthenion*, was thought to be first found out by *Mercury*: whereupon many of the Greeks call it *Hermupoa*: and wee all in Latine name it *Mercurialis*. Of it be two kinds, the male and the female: howbeit, the female *Mercury* is of better operation than the other. It riseth vp with a stem a cubit high, which otherwhile brancheth in the top: the leaues be like vnto *Basil*, but that they are narrower: full of knots or joints the stalk is, and those haue many hollow concavities like arme-pits. The seed hangeth down from those ioints. In the female the same is white, loose, & in great plenty: in the male it standeth close vnto those joints, but thinner: and the same is small and as it were wreathed. The leaues of the male *Mercury* be of a dark and blacker green: whereas in the female they be more white. The root is altogether superfluous, and very little. Both the one and the other delight to grow in plains and champion fields well ordered and husbanded. It is wonderful if it be true, that is reported of both these kinds; namely, That the male *Mercury*, cauſeth women to beare boies: and the female, girls. For which purpose the woman must presently after that shee is conceiued, drink the iuice of which *Mercury* she will, in sweet wine cuit, and eat the leaues either foddren with oile & salt, or els Greene & raw in a sallad with vineger. Some there be who boyle

boile it in a new earthen vessell neuer vsed before, together with the hearbe Heliotropium or G Turnsol, and 2 or 3 cloues of Garlick, vntill it be thoroughly sodden. VVhich decoction they prescribe to be giuen to women, as also the herb it self to be eaten the second day of their monthly sicknes, and so to continue for 3 daies together: & then vpon the fourth day, after they haue bathed, to company with their husbands. Hippocrates giueth wonderfull praise vnto Mercury, as wel the male as the female, for all those accidents which follow women: but the maner of vsing it, which he prescribed, there is no Physitian hath skil of. He appointed to make pessaries thereof with hony, oile of Roses, oile of Ireos or Lillies, and so to put them vp into the secret parts: and in this manner he saith that the herb is excellent good for to prouoke the monthly termes of women, and to fetch away the after-birth. Hee affirmeth also, that a potion or fomentation therewith wil do as much. Moreover, by his saying, the iuice of Mercury infused into the ears, or applied by way of liniment with old wine, is singular for them when they runne with stinking matter: he ordained likewise a cataplasme of Mercury to be laid to the belly, for to stay the violent flux of humors thither: for the strangury also and infirmities of the bladder. In which cases he gaue the decoction thereof with Myrrhe and Frankincense. And verily for to loosen the belly, although the Patient were in a feuer, there is a potion of Mercury singular good, made in this wise: Take a good handfull of Mercury, seeth the same in two sextars of water, vntill one halfe be consumed, let the party drink the same with salt and hony mixed therewith: but the said decoction if it be made with an hogs foot, with a hen, capon, or cock boiled withal, is the wholeformer. Some Physitians were of opinion, That for to purge the body, both Mercuries, as wel the male as the female are to be giuen, either boiled alone by themselves or els with Mallows: they cleanse the breest parts, and euacuat choler, but they hurt the stomacke. Touching all the other properties of Mercury, I will write in place conuenient.

As Chiron the Centaure found out the medicinable vertues of certaine herbes, so we are beholden to his scholler Achilles for one, which is singular to heale wounds, and of his name is called Achilles. This is that wound-herb, wherewith (by report) he cured prince Telephus. Some haue thought that hee deuised first the rust of brasse or verdegreece, which is so excellent for salues and plaisters: & therefore you shall see Achilles commonly painted scraping off the rust of his speare head with his sword into the wound of the said Telephus. Others say, that he tooke both the said rust or verdegreece, and also the herb Achilles to worke his cure. Some would haue this Achillea to be Panaces Heracleon; and others Sideritis: we in Latine call it Millefolia. An herb it is growing with a stalk or stem to the height of a cubit, spreading into many branches, clad from the very root vp to the top, with leaues smaller than those of Fenell. Others confesse indeed that this herb is singular good for wounds; but the true Achilles (say they) hath a blewish stalk a foot high & no more, bare and naked without any branches at all, howbeit finely deckt and garnished on euery side with round leaues, standing one by one in excellent order, and making a faire sight. There be again who describe it with a four square stem, bearing heads in the top in manner of Horehound, and leaued like vnto an Oke. And this they say is of that efficacy, that it wil conglutinat & vnite sinews again, if they were cut quite afunder. Moreover, you shall haue some who take it for Achillea that kinde of Sideritis growing vpon mud walls, which if it be brused or stamped, yeeldeth a stinking sent. Moreover, there is another going vnder the name Achilles, like to this last described, but that the leaues be whiter and fatter, the little stalks or sprigs more tender, & it groweth in vineyards. Last of al, there is one more called Achilles, which riseth vp to the height of 2 cubits, bearing pretty fine & slender branches, and those three square, leaues resembling Fearn hanging by a long stele, & the seed is much like to that of the Beet. In one word, they be al of them most excellent for healing wounds. And as for that especially, which hath the largest leaues, our countrimen in Latine haue called it Scopa Regia. And the same is holden to be good for to heale the Squinancy or Gargle in swine.

In the same age wherein Achilles liued, prince Teucer also gaue the first name and credit to one speciall herb, called after him Teucion, which some nominat Hemionium: this plant putteth forth little stalks in maner of rushes or bents, and spreadeth low: the leaues be small: it loneth to grow in rough and vntoiled places: a hard and vnpleasant sauer it hath in tast: it neuer flourereth, and feed it hath none. Soueraigne it is for the swolne and hard spleene: the knowledge of which property came by this occasion, as it is credibly and constantly reported. It fortuned on a time when the inwards of a beast killed for sacrifice, were cast vpon the ground where this herb grew,

A grew, it took hold of the spleen or milt, and claue fast vnto it, so as in the end it was seen to haue consumed and wasted it clean: hereupon some there be that call it Splenion, i. Spleenwort: and there goeth a common speech of it, That if swine doe eat the root of this herbe, they shall be found without a milt when they are opened. Some there be, who take for Teucrium and by that name do call, another herb full of branches in manner of hyssop, leaved like vnto beans; and they giue order, that it should be gathered whiles it is in floure, as if they made no doubt but that it would floure. The best kind of this herb they hold to be that which commeth from the mountains of Cilicia and Pisidia.

Who hath not heard of Melampus that famous diuiner and prophet? he it was of whom one of the Ellebores tooke the name, and was called Melampodium: and yet some there be who attribute the finding of that herb vnto a shepheard or heardman of that name, who obseruing wel that his she goats feeding therupon, fell a scouring, gaue their milk vnto the daughters of king Prætus, whereby they were cured of their furious melancholy, and brought again to their right wits. This herb then being of so excellent operation, it shall not be amisse to discourse at once of all the kinds of Ellebore, whereof this maketh one. And to begin withal, two principal sorts there be of it; namely, the white and the black: which distinction of colour, most writers would haue to be meant and vnderstood of the roots only, and no part else: others there be, who would haue the root of the blacke Ellebore to be fashioned like vnto those of the Plane-tree, but that they be smaller and of a more darke & dusky green, diuided also into more jags and cuts; but those of the white Ellebore, to resemble the yong Beet new appearing about the ground, saue onely that they be of a more blackish colour, and along the back part of their concauitie inclining to red. Both the one and the other bringeth forth a stalke in fashion like the Ferula or Fenel-geant, a span or good hand-breadth high, and the same consisteth of certain tunicles or skins folded one within another in manner of bulbous plants, rising from the like root; and the said root is full of strings or fringes, as is the head of an onion. The blacke Ellebore is a very poison to horses, kine, oxen, and swine, for it killeth them; and therefore naturally these beasts beware how they eat of it, whereas confidently they feed vpon the white. The right season of gathering the Ellebores, is in haruest time. Great store thereof groweth vpon the hill Oeta, but the best is that which is found in one only place thereof neere about * Pyra. The black Ellebore commeth vp euery where; but the best is in Helicon, a mountaine much renowned and praised for other herbs beside it, wherewith it is well furnished. As touching the white, that of the mount Oeta is counted the principall: in a second degree, is the white Ellebore of Pontus: in the third place is to be ranged, that which commeth from Elæa, which (they say) groweth among vines: in the fourth and last place, for goodnesse, is that of the mount Parnassus, which is sophisticated with the Ellebore of Ætolia neare by. The blacke Ellebore is called Melampodium, wherewith folk vse to hallow their houses for to driue away ill spirits, by strewing or perfuming the same, and vsing a solemne praier withall: it serueth also to blesse their cattell after the same order. But for these purposes they gather it very deuoutly and with certain ceremonies: for first and foremost, they make a round circle about it with a sword or knife, before they go in hand to take it forth of the ground: then the party who is to cut or dig it vp, turneth his face into the East, with an humble prayer vnto the gods, That they would vouchsafe to giue him leaue with their fauor to do the deed; & with that he markes and obserueth the flight of the Eagle; for lightly while they be cutting vp of this root, ye shall see an Eagle foring aloft in the aire: now in case the said Eagle flie neere vnto him or her that is cutting vp Ellebore, it is a certaine presage and foretoken, that he or she shall surely die before that yeare go about. Much ado also there is about the gathering of the white Ellebore, for vnlesse the party do eat some garlick before, and estfoones in the gathering sup off some wine, and withall make hast to dig it vp quickly, it wil stufte and offend the head. The blacke Ellebore some call Eutomon, others Polyrrhizon; it purgeth downward; the white, by vomit, vpward, and doth euacuat the offensive humors which cause diseases. In times past it was thought to be a dangerous purgatiue, and men were afraid to vse it: but afterwards it became familiar and common, in so much as many students tooke it ordinarily for to cleanse the eies of those fumes which troubled their sight, to the end that whiles they read or wrote, they might see the better or more clearly. It is wel known, that Carneades the Philosopher purposing to answer the bookes of Zeno, prepared his wits and quickened his spirits, by purging his head with this Ellebore. And Drusus our Countrey-man, one of the most famous and

* Where Hercules tried to death as he were, in a funeral fire, which the Greekes call Pyra.

renowned Tribunes of the Commons that were euer knowne at Rome (a man who about all others woon the fauour and applause of the comminallty, howsoeuer the nobility charged him to haue bin the cause of the Marfians war) was perfectly cured of the falling sicknes in the Isle Anticyra, by this only medicine: and indeed those Islanders haue a way by themselves to prepare their Ellebore with the mixture of Sefamoeides (as I haue said before) whereby the taking of it is most safe. Ellebore is called in Latine * Veratrum: the poudre as well of the one as the other snuffed vp into the nostrils, either alone by it selfe, or mixed with the poudre of the Fullers heade Radicula, wherewith they wash and scoure their woollen cloth, * prouoketh sneezing; and yet both of them procure sleep. Now for vse in Physicke, there would be chosen the smallest roots of Ellebor, such as be short also, and as it were cuttelled, and not sharp pointed in the bottome: and the best part is that which is toward the nether end; for the vppermost part of the root which is the thickest and bulbous like to an onion head, is good for dogs onely, and giuen vnto them for to make them scummer. In old time they vsed to chuse the Ellebore root by the bark, and took that for the best which had the most fleshy or thickest rind, to the end that they might take out the finer pith or marrow within; which they vsed to lap and couer with moist sponges, and when it began to swell, they diuided or sliced it longwise into smal filaments with the point of a needle or bodkin. These filaments or strings, they dried in the shade, & laid them vp to serue as need should require. But now adaies they cut the small shoots or slips branching from the root, such as are most charged with bark, and those the Physitians giue vnto their Patients. The best white Ellebore is that, which in tast is hot and biting at the tongues end, and in the breaking seemeth to smoke or send dust from it: it is commonly said, that it will continue in force thirty yerres. The black is good for the palse, for those that be lunaticke and bestraght in their wits, for such as be in a dropsie (so they be cleare of a feuer) for inueterat gouts as well of feet and hands as other joints: it purgeth downward by the belly, both choler and flemme: being taken in water, it gently mollifieth and loosneth the body: and from foure oboli (which is a small or mean dose) you may rise to a full dramme, so you exceed not that weight. Some were wont to mingle Scammonium therewith; but the safer way is to put salt only thereto: being giuen in any sweet liquor to some great quantity, it is dangerous: and yet a fomentation therewith is good to rid away and dispatch the mistinesse that troubleth the eies: and therefore some vse to beat it into pouder, and when it is reduced into a liniment or eie salue, therewith to annoint them for the said purpose. This property moreouer it hath, to bring to maturation the swelling wens called the kings euill, to mollifie any hard tumors, to mundifie also the foresaid wens and any botches or impostumes that be suppurat and broken. It clenseth likewise the hollow vlcers called fistuloes, provided alwaies that it be not taken out of the sore in 2 daies and 2 nights, but the third day it ought to be remoued. Incorporat with the scales of brasse and red orpiment, it taketh away warts. Made into a pulteffe or cataplasme with barley meale and wine, it is singular good for the dropsie, if it be applied vnto the belly: take a slining or slip of the root and draw it through the eare of sheep or horse in manner of rowelling, and the morrow after take it forth again at the same houre; this healeth the gid or wood-euill in sheep, and cureth the glandres in horses: incorporat with frankincense or wax, together with pitch or oile of pitch, it is singular good for the farcins or scab in any foure-footed beast. Touching white Ellebore, the best is that which most speedily prouoketh sneezing: it is without comparison far more terrible than the blacke, especially if a man reade what ado and preparation there went vnto it in the old time, when they were to drink it against shiuering and shakings, against the rising of the mother and danger of suffocation; in case also of immoderate and extraordinary drowlinesse, of excessive hicquers and yexing without intermission, and of continuall sneezing: moreouer, when they were troubled with weakenesse and feeblenesse of stomacke: in like manner in case of vomits, when they came either too fast or ouer-slow, either too little or too much: for this was a rule obserued among them, to giue with Ellebore some other drugs, for to cause it work the sooner, and to hasten vomit more speedily: also they vsed means to fetch away the very Ellebore again if it lay ouer-long in the body, either by other purgatiue medicines, or by clysters: oftentimes also by opening a veine or bloud-letting. And say that Ellebore taken in manner aforesaid, wrought very well, yet they vsed to obserue euery vomit, the diuers colors of humors that came away, which many times were fearful to behold: yea and when the Patient had done casting, they considered also the ordure and excrements that passed away by the belly: they gaue order

besides,

* A veratrum, vnde
de veratris &
veraculis: and
because such
prophets were
counted mad
& out of their
wits, therefore
it was so cal-
led, for that it
cured such.
* Sternutamentum
facit, ambe-
somus. I doubt
whether this
be true: I sup-
pose it should
be read accord-
ing to the old
copy (Sternutum
discontinuum) (i.e.)
they shake off
or shake off
sleep, vnto
that purpose
in the charges
& such drow-
sie diseases.

A besides, for *bathing either before or after the taking of Ellebore, as occasion best required; yea and they took great heed and regard of the whole body besides; and yet, did what they could, the terrible name and report that went of this medicine, passed all their care and circumspection whatsoeuer: for it was an opinion generally held and receiued, That Ellebore doth eat away and consume the flesh seething in the pot, if it be boiled therewith. But herein were the antique Physitians much too blame and greatly in fault, in that they were ouer timorous, and for feare of such accidents insuing vpon this medicine, gaue it in too small a dose: whereas indeed the greater quantity that one taketh of it, the more speedily it worketh, and the sooner passeth out of the body, when it hath once done the errand. Themison vsed to prescribe two drams, and not aboute. The Physitians who followed after, allowed the dose of foure drammes; grounding vpon a notable and famous apothegme or speech of Herophylus, who was wont to say, that B Ellebore was like vnto a valiant and hardy captain: for when (quoth he) it hath stirred all the humors within the body, it self issueth forth first and maketh way before them. Moreouer, there is a strange and singular deuise, To clip the root of Ellebore with small fizzers or sheares into little pieces; then, to sift them through a seer, that the bark or rind may remain still; and when it is clenfed and purged from the pith or marrow within, the same may fall thorow and passe away: which is passing good to stay vomits, in case the Ellebore doe worke too extreamely: furthermore, if we looke for good successe in our cure by ministering of Ellebore, in any wise wee must take heed and be carefull, how we giue it in close weather, and vpon a darke and cloudie day; for certainly it putteth the Patient to a jumpe or great hazzard, and causeth most grieuous and intollerable pains and torments. For that it should be taken in summer rather than in winter, no man doubteth thereof. Ouer and besides, the bodie ought to be prepared a feuen-night before; during which time, the Patient is to eat tart and * sharp meats and poignant sauces, to abstaine from wine altogether; and the fourth and third day before, to assay by little and little to vomit gently: last of all, to forbear supper ouer-night, when hee is to take his Ellebore the morrow. As touching the manner of giuing Ellebore: the white may be drunke in some sweet wine; but the best and chiefe way of taking it, is in milke, grewell, or portage. Of late dayes there is come vp a pretty inuention, To slit or cut Radish roots, and within those gashes to stick or enterlace pieces of white Ellebore, which don, to bind them close vp again, that the strength and vertue thereof may be incorporat in the foresaid roots: and thus by the means of this kind temperature with the Radish, to giue it vnto the Patient. Ordinarily this medicine of Ellebore continueth not aboute foure houres within the body, but it commeth vp againe, and within feuen it hath done working. And thus being vsed as is before said, it is a most soueraigne remedie for the falling sicknesse, the swimming or dizziness of the head: it cureth melancholicke persons troubled in mind; such as be brain-sick, mad, lunaticke, phrantick, and furious: it is singular good for the Elephantie, the foule and dangerous morphew called Leuce, the filthy leprosie, and the generall convulsion whereby the body continueth stiffe and starke, as it were all one peece without any joynt. It helpeth those that be troubled with trembling, shiuering, and shaking of their lims, with the gout, and the dropsie, and namely such as bee entering into a tympanie: singular it is for those that haue weake and feeble stomackes and can keepe nothing that they take; for such as are giuen to spasmes or crampes, lie * bed-rid of the dead palse or such chronicke diseases, encumbered with the Sciatica, haunted with the quartaine Ague, which will not be ridde away by any other meanes; troubled with an old cough, vexed with ventosities and griping wrings and torments which be periodically, and vse to come and goe at certaine set times: howbeit, Physitians forbid the giuing of Ellebore vnto old folk and yong children: Item, to such as be of a foeminine and delicate bodie; as also to those that be in minde effeminate: likewise to those who are thinne and slender, soft and tender: in which regards, wee may not be altogether so bold to giue it vnto women as vnto men. In like manner, this is a medicine that would not bee ministered inwardly to fearefull, timorous, and faint-hearted persons; neither to those who haue any vlcere in the precordiall region about the midriffe, ne yet vnto F such as usually bee giuen to swell in those parts; and least of all vnto those that spit or reach vp bloud; no more than to sickely and crasie persons who haue some tedious and lingering maladie, as phthisicke, &c. hanging vpon them; and namely, if they be grieued and diseased in their sides or throat. Neuerthelesse, applied without the bodie in manner of a liniment with salted hogs greafe, it cureth the breaking forth of flegmaticke wheals and pimples; as also healeth old

* Hippocrates
appointeth
them to bathe
before, who
purge necer-
rily with Elle-
bore: & in case
of convulsions
occasioned by
the taking
therof, he pre-
scribeth like-
wise the bain.

* As Radish
roots and
oxymell.

* Clinici, some
read Cynitis, &
then it signifi-
eth those that
haue their
mouths drawn
awrie to their
ears: the dif-
ease is called
Cynicus spasmus.

fores remaining after imposthumes suppurate and broken: mixed with parched or fried braley-groats it is a very rats-bane, & killeth both them & mice. The Gauls or Frenchmen when they ride a hunting into the chase, vse to dip their arrow heads in the juice of Ellebore, & they have this opinion, that the venison which they take will eat the tenderer; but then they cut away the flesh round about the wound made by the foresaid arrows. Furthermore it is said, That if white Ellebore be beaten to powder and strewed vpon milk, all the flies that tast thereof will die. To conclude, the said milke is good to rid away lice, nits, and such like vermin out of the head and other parts of the body.

CHAP. VI.

¶ Of the herbe Mithridation. Of Scordotis or Scordium. Of Polemonia, and Philetaria, otherwise called Chilibodina. Of Eupatorie or Agrimonie. Of great Centaurie, otherwise named Chironia. Of the little Centaurie, named also Libadion and Fel terra. Of Triorchis: and the medicinable vertues vpon these Simples depending.

Crateus hath ascribed the inuention of one herb to K. Mithridates himselfe, called after his name Mithridation: this plant putteth forth no more than two leaues, and those directly and immediatly from the root, resembling the leaues of Branc vrsin: there riseth vp a stem between them both in the mids, carrying an incarnat floure in the head like a rose.

Pompeius Lenaxus (who by the commandement of Pompey the Great translated into Latine the Physick notes and receipts of K. Mithridates) saith moreover, that the said prince found out another herb named Scordotis or Scordium; and that among other his writings hee met with the description of the said herb, set down vnder the kings own hand in this manner; namely, That it grew a cubit high, with a main stem four square, and the same full of branches garnished with downy or furred leaues, indented and cut like to those of the oke. This herb is found ordinarily growing within the region of Pontus, in battle and moist champian grounds, and in taste is very bitter. There is another kind of Scordium, with larger and broader leaues, and like it is vnto wild Minth or Calamint: both the one & the other be of great vse in Physicke, either by themselves alone, or els put into opiats and antidots among other ingredients.

Touching * Polemonia, which others call Philetaria, it tooke the name vpon occasion of the strife and controuersie betweene certaine princes which debated about the first inuention thereof. The Cappadocians know it by the name Chilibodina, i. as one would say, endued with a thousand vertues. This plant hath a thicke and grosse root, but smal & slender branches, from the tops whereof there hang down certaine berries in tufts and clusters, inclosing within them black seed: in all other respects it resembles rue, & groweth commonly vpon mountaines.

As for Agrimony, called otherwise Eupatoria, it hath gotten credit & reputation by a * king, as it may appeare by the name. The stalk or stem of this herb is of a woody substance, blackish in colour, hairy, and of a cubit in height, or rather more. The leaues grow disposed and distant by certaine spaces asunder, much like vnto those of cinquefoile or hempe, snipped & cut about the edges ordinarily in fve parts, the same are of a blackish or dark green, and full of a kinde of plume or downe. The root is superfluous for any operation that it hath in Physick: the seed of this herb drunk in wine, is a singular remedy for the dysentery or bloody flux.

The greater * Centaury is that famous herbe wherewith Chiron the Centaure (as the report goeth) was cured, at what time as hauing entertained Hercules in his cabin, hee would needs be handling & tempering with the weapons of his said guest, so long vntill one of his arrows light vpon his foot and wounded him dangerously: wherupon some there be who name it Chironion. The leaues grow large, broad, and long, indented or cut rather, like a saw round about the edges: neare vnto the root they come vp very thick: the stems run vp three cubits high, full of knots and joints all the way: knobbed in the top like vnto Poppie heads: the root is of a mighty bignesse, inclining to a red colour, howbeit tender and easie to break or knap in sunder: two cubits it beareth in length; full of a liquid juice: bitter in taste, and yet sweet withal: it loneth to grow vpon banks and pretty hills, where the ground is fat and battle. The best Centaury of this greater kinde, commeth out of Arcadie, Elis, Messenia, Pholoe, and mount Lycæus: and yet there is good found vpon the Alpes, and in many other places. Some there be, who out of this plant

draw

A draw a juice in manner of Lycium. Of such efficacy it is to incarnat wounds, that (by report) if it be put into the pot to seeth among many gobbers or pieces of flesh, it wil cause them to grow together and vnite. The root only is to be giuen inwardly, and namely in drinke, to the weight of two drams, in such cases as I will shew hereafter: with this charge, That if the Patient haue an ague hanging vpon him, it be stamped and taken in water: others may drink it well enough in wine. Also the juice drawn forth of it when it is boiled, is good for the diseases or rot of sheep.

Another Centaury there is, surnamed also in Greeke Lepton (i. Small) for that it hath little leaues in comparison of the other: soine name it Libadion, for that it loneth to grow neere to springs or fountains: it is somewhat like to Origan, saue that the leaues be narrower and longer: the stalk is cornered, rising vp to a smal height; to wit, a hand-breadth or a span at most: the same also putteth forth little branches: the floure hath some resemblance of the * red-Rose * I. ychnidis. **B** The root is small, & needlesse for any Physicke vse: but the juice of the herb it selfe, is of singular operation. This herb would be gathered in Autumne, when it is fresh, full of leaues, and floures, for then it yeeldeth best juice. Some take the stalks and branches, tread them smal, let them lie infused in water 18 daies, and then presse forth the juice. This is that * Centaury, which we here in Italy call Fel Terra, i. the Gal of the earth, by reason of the exceeding bitterness which it hath: the Gauls terme it Exacos, because if it be drunk it sendeth downeward by feege out of the body, any hurtfull poison whatsoeuer.

There is a third Centaury named Centauris, knowne by the addition Triorchis: whosoever commeth to cut this herb, he quits himselfe wel and escapeth faire, if he wound not himselfe. **C** This plant yeeldeth forth a certaine red juice like vnto blood. Theophrastus hath delivered in his history of Plants, that the hawkes * Triorchides protect and defend this herbe, & are ready to incounter and fight with them that come to gather it; wherupon it took the foresaid name Triorchis. But many ignorant and vnskilfull persons there be, who write confusedly of all these Centauries, and attribute this last property and name, to the first Centaury the great.

Our Buzzards (as Turner thinketh)

CHAP. VII.

¶ Of Clymenos, Gentian, Lyfimachia, Parthenis or Artemisia, Ambrosia, Nymphaea, Heracium, and Euphorbium, with their operations in Physicke.

D The herb Clymenos beareth the name of K. Clymenus, the first inuenter and finder out thereof: Leafed it is like vnto Ivie, full of branches: the stalkes or stems be hollow and empty within, diuided by joints and partitions: of a strong and vnepleasant smell: the seed resembleth the grains or berries of Ivie; and it taketh pleasure to grow in wilde woods and among mountains. As touching the operations which it hath, & namely what diseases it cureth being taken in drinke, I will shew hereafter: mean while, I will not put off any longer, but aduertise the Reader, euen in this place, That this herb as it doth good one way, so it hurteth another; for if they be men that drink it, wel may it cure them of the maladies for which it is giuen, but surely it killeth their naturall seed and disableth them for getting children, so long as they vse it. **E** The Grecian writers described it to be like in leaf vnto Plantain: in stem four square, bringeth forth certain little cods full of seed, infolded and interlaced one within another after the manner of the tufted and curled haire about the Pourcuttle fishes called Polypi. But be it what it will, the juice of the herb is refrigeratiue, and of great vse in Physicke.

As for the herb Gentian, we must acknowledge Gentius king of the Illyrians for the Authour and parron thereof, for he brought it first into name & credit: and howsoeuer it grow in al places, yet the best is that which is found in Illyricum or Sclauonia. The leaues come neare in fashion and forme to those of the Ash tree, but that they be small in manner of Lettuce: the stem is tender, of a thumo thicknesse, hollow as a kex and void within: leafed here and there with certain spaces betweene, growing vp other while 3 cubits high. The root is pliable and will winde euery way, somewhat blacke or dusky, without any smell at all: it groweth in great plenty vpon waterish hillocks that lie at the foot of great mountains, such as the Alps be. The juice of the herb is medicinable, like as the root it selfe also, which is very hot of nature and not to be giuen in drinke to women withchilde.

Lyfimachia, the herbe so much commended by Erasistratus, beareth the name of king Lyfimachius,

machus, who first gaue light of the vertues that it hath: greene leaues it beareth like vnto those of the willow: the floures be purple: giuen much it is to branch from the roor, and those stalkes grow vpright: a * sharp smell it carrieth with it, and delighteth to liue in watery places. Of so effectuall vertue it is, that if it be laid vpon the yoke of two beasts which will not draw gently together, it staith their strife and maketh them agree well enough.

Not men only and great kings, but women also and queens haue affected this kind of glory, To giue names vnto herbs. Thus quene *Artemisia* wife to *Mausolus* king of Caria, eternized her owne name by adopting (as it were) the herb Mugwort to her selfe, calling it *Artemisia*, whereas before, it was named *Parthemis*. Some there be who attribute this denomination vnto *Diana* (called in Greek *Artemis* *Ilithya*) because it is of speciall operation to cure the maladies incident to women. It brancheth and busheth thick much like to wormwood, but that the leaues be bigger, fat and wel liking withal. Of this Mugwort there be two kinds: the one carrieth broad leaues, the other is tender and the leaues smaller: this grows nowhere but along the sea coasts. There be writers who call by this name *Artemisia*, another herb growing in the midland parts of the main and far from the sea, with one simple stem, bearing very small leaues and plentie of floures, which commonly break forth and blow when grapes begin to ripen, and those cast no vnpleasant smel, which herb some thereupon name * *Botrys*, others *Ambrosia*: and of this kind there is great store in *Cappadocia*.

* *Nenuphar* is called in Greeke *Nymphæa*, the originall of which herb and name also, arose by occasion of a certain maiden Nymph or yong lady, who died for ialousie that she had conceived of prince *Hercules* whom she loued: and therefore by some it is named also *Heraclion*, of others *Rhopalos*, for the resemblance that the roor hath to a club or mace. But to come againe to our first name *Nymphæa*; this quality it hath alluding and respectiue thereunto, That whoeuer do take it in drink, shal for 12 daies after find no prick of the flesh, no disposition (I say) to the act of venery or company of women, as being depriued for that time of all naturall feed. The best *Nemphar* or *Nymphæa*, is found in the lake *Orchomenus*, and about the plain of *Marathon*. The people of *Bœotia*, who also vse to eat the seed thereof, commonly call it *Madon*. It taketh great contentment to grow in waters: the leaues floating vpon the face of the water, be broad and large, whiles others put forth from the roor. The floure resembleth the Lillie, which when it is once shed, there be certain knobs remaining like vnto the bolls or heads of *Poppie*. The proper season to cut the stems and heads of this plant, is in Autumne. The roor is blacke, which being gathered and dried in the Sunne, is counted a soueraigne remedy for those that be vexed with the flux or fretting of the belly. A second * *Nemphar* or *Nymphæa* there is, growing in *Theffaly*, within the riuer *Peneus*, with a white roor, but a yellow floure in the head about the bigneſſe of a rose.

No longer ago than in our forefathers daies, *Iuba* king of *Mauritania*, found out the herb *Euphorbia*, which he so called after the name of his own Physitian *Euphorbus*, brother to that learned *Musa* Physitian to *Augustus Caesar*, who saued the life of the said Emperor, as heretofore I haue declared. These two brethren Physitians, ioined together in counsell, and gaue direction for to wash the body all ouer in much cold water, after the hot baine or stouue, thereby to knit and bind the pores of the skin: for before their time, the maner was to bathe in hot water only, as we may see plainly in the Poet *Homer*. But now to return vnto our herb *Euphorbia*, the foresaid *K. Iuba* wrote one entire booke (at this day extant) wherein he doth nothing els but expressly set forth the commendable vertues and properties of this one herb. He found the same first vpon the mountain *Atlas*, where it was to be seen (saith he) bearing leaues resembling *Branc-vrsin*: so strong and forcible it is, that those who receiue the juice or liquor issuing from it, must stand a good way off; for the manner is to launce or wound it first, and then presently to retire backe, and so at the end of a long pole to put vnder it a pail or trey made of kids or goats leather for a receptory, into which there runneth forth out of the plant, a white liquor like vnto milke: which when it is dried and growne together, resembleth in shew a lumpe or masse of *Frankincense*. They that haue the gathering of this juice called *Euphorbium*, find this benefit thereby, M That they see more clearly than they did before: an excellent remedy this is against the venom of serpents, for what part soeuer is stung or wounded by them, make a light incision vpon the * crown [of the head] and apply therto this medicinable liquor, it wil surely cure it. But in that country, the *Getulians* (who commonly do gather *Euphorbium*, for that they border vpon the mount

* *Odores acri*: Surely our herb Willow or *Lyfmaebia* hath a kind of sharp coole scent vnpleasant: although *Pliny* vs the word (*acri*) for hot and biting in other places. Hereupon it might well be called *Lyfmaebia*, (h) Locustile, and not of *K. Lyfmaebus*.
* Or rather *Botrys* (i) oke of *Ierusalem* is of some called *Artemisia*, of others *Ambrosia*, as *saith Dioſcorid.*
* Water lilly.

* Water-roſe.

* Or the vpper part of the hart place.

A mount *Atlas* sophisticate it with goats milke. Howbeit, fire will soon dete& this impofure of theirs, for that which is not right but corrupt, when it burneth, doth yeeld a lothſome fume and stinking sent. The juice or liquor which in France is drawn out the herb *Chamaelea* (the same that beareth the red grain, named by the Latines *Coccum*) commeth far short of this *Euphorbium*. The same being grown thick and hard, if a man break it, resembleth gum *Ammoniacke*. Taſt it neuer ſo little at the tongues end, it setteth all the mouth on a fire, and ſo continueth it a long time hot, but more by fits, vntill in the end it parcheth and drieth the chaws and throat alſo far within.

CHAP. VIII.

B ¶ Of *Plantain*, *Bugloſſe*, and *Borrage*. Of *Cynogloſſa* or *Hounds tongue*. Of *Buphtalmus*, i. *Oxe eie*, or *Many-weed*. Of *Scythica*, *Hippice*, and *Iſchæmon*. Of *Pettonica* and *Cantabrica*. Of * *Conſiligo* and *Hiberia*. Of *Celandine* the great, *Canaria* and *Elaphoboscos*. Of *Diſtammum*, *Ariſtolochie* or *Hervort*: That fiſh are delighted ſo much therewith, that they will make haſt vnto it, and be ſoon taken. Alſo the medicinable vertues of thoſe herbs aboue named.

T *Hemiſon*, a famous Phyſitian, ſet forth a whole booke of the herbe *Way-bred* or *Plantaine*, wherein he highly praiſeth it: and challengeth to himſelfe the honor of firſt finding it out, notwithstanding it be a triuiall and common herb, trodden vnder euery mans foot. Two kinds of it be found: the one which is the leſſer, hath alſo narrower leaues, and inclining more to a blackiſh green, reſembling for all the world ſheepe * or lambs tongues, the ſtalke is cornered bending downward to the ground, & it grows ordinarily in meadows. The other is greater, with leaues encloued (as it were) within certain ribs reſembling the ſides of our body: which being in number ſeuẽ, gaue occaſion to ſome herbariſts for to call it *Heptapleuron*, as a man would ſay, the ſeuẽ ribbed herb. The ſtem of this *Plantain* riſeth to a cubit in height, much like to that of the *Naphew*. That which groweth in moiſt and waterie places, is of greater vertue than the other. Of wonderfull power and efficacy it is by the aſtringent quality that it hath, for to dry and condenſate any part of the body, and ſerueth many times in ſtead of a cautery or ſearing yron. And there is nothing in the world comparable vnto it, in ſtaying of fluxes and deſtillations, which the *Greeks* call *Rheumatismes*.

To *Plantain* may be ioined the herb * *Bugloſſos*, ſo called, for that the leaſe is like an *Oxe tongue*. This herb hath one ſpeciall property aboue the reſt, that if it be put into a cup of wine it cheareth the heart, and maketh them that drink it, pleaſant and merry; whereupon it is called *Euphroſynon*.

Vnto this for affinity of name, it were good to annex *Cynogloſſos*, i. *Hounds tongue*, for the reſemblance that the leaues haue to a dogs tongue: a proper herb for vinet-works and knots in gardens. It is commonly ſaid, That the roor of that *Cynogloſſos* which putteth forth 3 ſtems or stalks, and thoſe bearing ſeed, if it be giuen to drink, cureth tertian agues: but the roor of that which hath ſoure, is as good for the *Quartains*. Another * *Cynogloſſos* there is like to it, which carrieth ſmall burs: the roor whereof being drunke in water, is a ſingular counterpoiſon againſt the venome of toads and ſerpents.

E An herb there is with flours like vnto *oxe eies*, whereupon it took the name in Greek * *Buphtalmos*: the leaues reſemble *Fennel*: & it groweth about town ſides: it ſhutteth forth ſtalles from the roor plentifully, which being boiled, are good to be eaten. Some there be who call it *Cachla*. This herb made into a ſalue with wax, reſolueth all * ſchirrous and hard ſwellings.

Other plants there be, which beare the names not of men but of whole nations, which firſt found them and their vertues out. And to begin withall, beholden we are to *Scythia* for that which is called *Scythica*. It groweth notwithstanding in *Bœotia*, and is exceeding ſweet in taſt. Alſo there is another of that name, ſingular good for the cramps, called by the *Greeks* *Spasmata*. An excellent property it hath beſides, for that whoſoeuer holds it in their mouth, ſhall for the time be neither hungry nor thiſty. Of the ſame operation there is another herb among the *Scythians* or *Tartars*, called * *Hippice*, becauſe it workes the like effect in horſes, keeping them from hunger and thiſt. And if it be true that is reported, the *Scythians* with theſe herbs wil endure without meat or drink for twelue daies together.

Touching the herbe *Iſchæmon*, the *Thracians* firſt found out the rare vertue that it hath in ſtanching

Stetterwoort, or Bears foot, as ſome thinke.

Whereupon it ſeemeth to be called in Greeke *aphroſynon*.

Our Borrage.

This is our common Houſe-tongue with little burs.

Some call them Moones. *Schirromata*, otherwiſe *Sicomata*, which be bunches of ſwellings in the fiſh full of a greaſe matter.

* *Theophrastus* writeth the like of the ſweet roor or Liquorice and *Hippice*, that is, cheefe made of mares milke, but not of any herb *Hippice*.

stanching blood, according as the very name implies. For (say they) it will stop the flux of blood running and gushing out of a veine not only opened, but also if it were cut through. It coucheth and creepeth low by the ground, and is like unto Millet, but that the leaues be rough and hairy. The manner is to stuffe the nostrils therewith for to stay the bleeding at nose. And that which groweth in Italy stancheth blood, if it be but hanged about the neck, or tied to any part of the body.

The people in Spaine named Vetrone, were the first authors of that herb, which is called in France * Vetroneca, in Italy Serratula, and by the Greeks Cestron or Psychotrophon: Surely an excellent herb this is, and above all other simples most worthy of praise. It commeth forth of the ground, and riseth vp with a cornerd stalk, to the height of two cubits, spreading from the very root leaues of the bignesse of Sorrell, cut in the edges, or toothed in manner of a saw, with floures of a purple color growing in a spike, & seed correspondent thereto. The leaues dried and brought into powder, be good for very many vses. There is a wine and vinegar made or condite rather with Betony, soueraign for to strengthen the stomack, and clarifie the eyesight. This glorious prerogative hath Betony, that look about what house soeuer it is set or sowed, the same is thought to be in the protection of the gods, and safe enough for committing any offence, which may deserue their vengeance and need any expiation or propitiatory sacrifice.

In the same Spain groweth * Cantabrica, lately found by the people Cantabri, and no longer since than in the daies of *Augustus Caesar*. This herb is to be seen euery where, rising vp with a benty or rusty stalk a foot high, vpon which you may behold small long floures, like to cups or beakers, wherein lie enclosed very small seeds. Certes, to speak the truth of Spain, it hath bin alwaies a nation curious in seeking after simples. And euen at this day in their great feasts where they meet to make merry Sans-nombre, they haue a certain wassell or Bragat, which goeth round about the table, made of honied wine or sweet mead, with a hundred distinct herbs in it: and they are perswaded that it is the most pleasant and wholsome drink that can be deuised: yet there is not one amongst them all who knoweth precisely what speciall herbs there be in all that number, in this only they be all perfect, that there go a hundred severall kinds thereof, according as the name doth import.

In our age we remember well, that there was an herb discovered in the Marsians country: and yet it groweth also amongst the people named *Aequicole*, neare vnto the borough Neruesia, and they call it * Confiligo: this is a soueraigne plant, as we shall shew hereafter in place convenient, for those that be so farre gone in a Phthisicke or consumption, as no man would hight their life and recovery.

Of late daies *Serapion Damocrates*, a famous practitioner in Physick, brought to light an herb which he termed *Hiberis*, a deuiled and fained name for his own pleasure, and nothing significant, as may appeare by a certain * Poem that he made as touching the discovery of that herbe. It commeth vp most willingly about old tombes and sepulchres, decayed wals, and ruinated buildings, in vntoiled and neglected places, and namely, common high waies. It beareth floures at all times, and is leaved like to Cresses: the maine stalk is a cubit high: but the seed so fine and small, that hardly they can discerne it. The root also hath the very smel of Cresses: it serueth to many good purposes, but with most successe in Summer time, & neuer but when it is green and fresh gathered. Much ado and trouble there is about the punning and stamping of it. Being tempered and incorporate with a little hogs greafe, it is singular to be applied to the paine of the hucklebone called *Sciatica*, as also to the gout of any ioints whatsoeuer. If the patient be a man it must lie bound fast vnto the place four houres at the most: but women may abide it but half so long, provided alwaies, that presently vpon this medicine they go down into an hot bain, and after they haue bathed, annoint their bodies all ouer with wine and oile. Thus must the patient doe once euery 20 daies, so long as there remaineth any grudging or minding of the foresaid pain. And surely in this sort it drieth vp and cureth all inward and secrete rheums running neare vnto the bones. Howbeit, this caueat would be given, not to lay this plaster too in the very heat and fury of the pain or disease, but the time must be waited when the extremity is somewhat slackened and ouer past.

Moreover, other liuing creatures also there be besides men, to which we are to attribute the inuention of herbs: as first and principally, the great * Celendine, called in Greek *Chelidonia*, for that the old Swallows with the helpe of this herbe helpe their young ones to see again, yea though

A though their eyes were plucked out of their head, as some are of opinion. Of this herb there be two kinds: the greater, which putteth forth many stems, & those full of branches, beareth leaues like vnto the wild * Parsnep, but that they be larger. The herb it selfe groweth vp to the height of two cubits. The leaues be whitish or hoary, like as the whole plant it selfe, al saue the floure, which is yellow. The whole herb yeeldeth a biting and fretting juice, of the colour of Saffron: and it bringeth forth seed resembling that of Poppy. The lesse * Celendine is seen with leaues fashioned much after the Ivy, but that they be rounder. Both Celendines do floure in the spring about the time that the swallows come abroad and shew themselves vnto vs, and those floures begin to fade again vpon the departure of that bird from vs. The onely time to draw or presse their juice from them, is whiles they be in the floure: which if it be put into a brasen pan, and seeth gently vpon hot embers or ashes only, together with the best Atticke honey, is a singular medicine to discusse and scatter the cloudy films that dim the eyesight. The said juice alone without any other preparations, goeth to the making of many collyries or eyefalues, which be called *Chelidonia*, by reason of that ingredient.

Touching the Dogs grasse *Canaria*, it took that name in Latin, because dogs vse therewith to discharge their gorge & whet their stomackes when their appetite to meat is gone. A strange thing of these dogs: we see them chew this herb in our sight ordinarily euery day, yet so, as we neuer can tel which * herb it is that they haue bitten: for we may perceiue it only when it is eaten down. But no marvel if this creature be so spightful as to concale from vs a purgative herb, considering a greater malice that he sheweth in another: for it is said, that if a dog be bitten by a serpent, he hath recourse by and by to a certaine herb that cureth him presently; but he will be sure that no man shall see him when he croppeth that herb.

Yet the poore hinds (simple and harmlesse creatures they) are not so coy and dainty of their knowledge, for they haue shewed vs the plant * *Elaphosodon*, whereof I haue already written: like as the herb * *Seseli* also, which presently after they haue calued, they feed vpon in our sight, & make it not strange. Nay, they haue not thought much to impart to vs the vertue of the herb *Dictamnus* (as I haue partly declared heretofore) for we may evidently see them after they be shot or wounded, to go forthwith vnto this herbe, and no sooner haue they eat of it, but immediately the arrows or darts wherewith they were hurt and sticking in them, fall out of their bodies. This plant is found growing no where but in the Island Candy. The branches be exceeding fine and slender: it resembleth in some sort *Penryol*. At the tongues end hot it is and biting. And the leaues only are in vse: for * neither floure nor seed it hath, ne yet any stem or stalk.

As for the root, as it is smal and little, so is it * needlesse for any good it doth in Physick: a rare plant this *Dictamnus* is, for euen in Candy, the naturall place thereof, it grows not euery where, but within some small compasse of ground within that Isle: and there Goats haue a wonderful desire to be feeding vpon it. Mary in lieu of this true *Dictamnus*, there is a bastard kind found in many countries, called *Pseudodictamnus*: in leafe it resembleth the other, the branches be lesse: and some there be who name it *Chondris*. That it is of weaker operation, and nothing so effectual as the former, a man shall soone find by the taste: for take neuer so little of the right *Dictamnus* into the mouth, it setteth it presently on a fire. They that vse to gather these *Dictamnes*, bestow them close strappd within the stems of *Ferula* or reeds, & then bind them fast together, for feare that their vertue & strength should exhale & vanish away. Writers there be who affirm, that both the one & the other *Dictamnus* do grow in many countries: but the worst is that which commeth vp in rich and fat grounds: therefore they that would meet with the right *Dictamnus*, must seek it in rough places, for no where els it loues to grow. A third kind there is of *Dictamnus*, and so called: but neither in shape answerable, nor in effect comparable to the other. In leafe it resembleth water Mints, but that the branches be greater. Moreover, this settled and deep persuasion men haue of Candy, that what Simples soeuer grow there, they be infinitely better than all others of the same kind whatsoeuer. Next vnto which Island there goeth a great name and opinion of the mountain *Pernaas*, for excellent herbes: how soeuer otherwise mount *Pelios* in *Thessaly*, the hill *Telechrius* in *Euboea*; and generally, all *Arcadia*, & the country of *Laconica* throughout, be renowned much for plenty of good simples. And yet the *Arcadians* verily vse no other Physicke but milke onely, and that about the spring, at what time all herbs there, be in their best verdure and fullest of sap, so as the vdders of beasts be their Physicians, yeelding them medicines out of their pastures. But above all, they vse to drink cow milk for

Betony

A kind of wild
Galiofie.Much like to
the Welch
Metheglin.

Beare-foot:

Written in
Iamb like ver-
sus as appea-
reth in *Calen*.

ear Celendine

* *Possinace* tra-
ratic. Some
read *Ranuncu-*
i. Crowfoot,
o. of *Disfor*.
* *Scrophularia*.
i. Pilewort or
Figwort. This
floureth sooe-
ner, to wit, in
February.

* With vs they
doe eat the
common
Quick grasse.

* *G. atia Dei*.
* Which the
old Romanes
called *Sili*.
wh. reol *Effusus*
thinketh that
Sili is a
break fast, oole
the name, be-
cause they vsed
before dinner
or noone, se-
dition, to drinke
a draught of
wine aromatiz-
ed with this
herbe.

* In *Disfor*.
whom *Pliny*
seemeth here
to translate, it
should be read
thus, *in Disfor*.
* *Disfor* is
often, not *Disfor*.
that is, neither
floure nor seed
is medicinal: for
that it hath
floures, appea-
reth by *Virgil*
12. *Aeclid*. in
these verses:
* *Dictamni* ge-
nitrix *Cretae*
carpit ab Ida,
tuberibus can-
tem folijs, &
floure comenem.
Purpure, &c.
* Yet *Disfor*.
saith, that it
helpes women
to speedy
childbirth.

for that those kind of cattell, feed indifferently in manner of all kind of herbs. Certes, of what G power and efficacy herbs are, and namely, what effects they may work euen by the milk of four-footed beaſts graſing and paſturing thereupon, appeareth manifeſtly by two notable examples which I will report vnto you. About Abdera, and along the ſtreet or high way called *Diomedes* cauſey, there lie certain paſtures, wherein all the horſes that feed, become inrag'd, & ſtark wood thereby. Semblably, the herbage belonging to *Pornia*, a towne in *Magnesia*, driueth *Aſſes* to a kind of madneſſe.

Leauing now thoſe herbes which took their appellations of beaſts, let vs proceed to others. Among which, *Aristolochia* deſerueth to be ranged with the beſt and principal: an herb which ſeemeth to haue had that name giuen it by great bellied women, for that it is * *ἄριστον γαστρίσιν*. Our Countrey men of Italy call this herbe in Latine *Malum terræ*, which is as much to ſay, as the * *Apple of the earth*: and they do make foure kinds thereof. The firſt hath a round root ſwelling and bunching out: leaues reſembling the Mallow, and partly thoſe of luy, but that they be of a more browne and duſky colour, and withall, ſofter in the hand. The ſecond *Aristolochia* or Birthwort is taken to be the male, and hath a root as thicke as a good Baſton or ſtaffe, growing longwiſe to the length of foure fingers. The third, which by ſome is called *Clematis*, by others, *Aristolochis of Candy*, hath a root exceeding long and ſlender, like to that of a young Vine: and this is reputed of all others for the beſt and moſt effectually. The roots of them all be of a Box colour, the ſtalks ſmall, and the floures purple. They beare little pretty berries, much like to capers. But it is the root alone which is medicinable. A fourth kinde there is alſo, which they call *Piſtolochia*, ſmaller and ſlenderer than the laſt before, named *Clematis*. A root it hath diuided into many fibers or ſtrings, growing thicke one by another, to the thickeſſe of big and well growne ruſhes: whereupon ſome haue giuen it the name of *Polyrrhizon*. All the ſort of theſe *Aristolochies* yeeld an aromaticall odour: but the long and ſmaller root is that which is moſt pleaſant to ſmell vnto: for it hath a fleſhie rind, and is one of the principall ingredients which enter into thoſe odoriferous perfumes and ointments which ſtand moſt vpon *Nard*: theſe Birth-worts delight all of them to grow vpon plaines and barrell grounds. The right ſeaſon to digge or draw them out of the earth, as in harueſt time: and then after they be rid and ſcaled as it were, from the earth or mould ſticking vnto them, they vſe to lay them vp ſafe. Howbeit the beſt ſimply are thoſe which come out of *Pontus*. And take this for a generall rule, That in euery kind, the weightieſt is alwaies moſt medicinable. The round rooted *Aristolochie* hath a ſpeciall property againſt the poiſon of ſerpents. Yet there goeth the greateſt name of the long, for this excellent qualitie, if it be true, that is reported thereof: namely, that if a woman newly conceiued with childe, applie the root thereof to her naturall parts within a morcell of raw boeufe, it will cauſe her to breed and forme in her wombe a man childe. Our Fiſhers heere by in *Campaine*, doe tearme the round root, The poiſon of the earth. In very truth I haue ſcene them with mine owne eyes to ſtampe the ſaid root, and incorporat it with lime into a paſte, and ſo to caſt it into the ſea in ſmall pellets or gobbets, for to catch fiſhes: and I aſſure you they will ſkud amaine, and make haſte to this bait, and be very eager of bit: but no ſooner haue they taſted thereof, but they will turne vp their bellies, and lie floating aloft vpon the water ſtarke dead. As for that *Aristolochie*, which for the manifold rootes that it hath is called *Polyrrhizon*, it is thought to be ſoueraigne for conuulſions or crampes, contuſions, or bruifes: for ſuch alſo as haue fallen from ſome ſteepe and high place, if the root be drunke in water. Likewise, the ſeed of this kinde, is ſuppoſed ſingular good for the pleuriſie: and to corroborate, ſtrengthen and heat weake and diſtemper'd ſinewes. The ſame likewiſe may be reckoned for a * *Satyron*.

It remaineth now to knit vp this diſcourſe with a rehearſall of all the operations and effects of the plants before named. To begin then with the moſt dangerous accident of al other, to wit the ſting of ſerpents, theſe hearbes following are very medicinable and effectually in that caſe: namely, *Britannica*, and the roots of all the kinds of *Panaces* taken in wine. The floure & ſeed beſides (of *Chironium* eſpecially) if it be drunke, or otherwiſe applied as a liniment with wine and oile. Alſo the wild *Origan* or *Marjoram* called *Cunila Bubula*, hath a ſingular property by it ſelf that way: like as *Polomonina*, otherwiſe called *Philetoeria*, if one take 4 drams weight of the root in wine. Semblably, *Teucrium*, *Sideritis*, & *Scordoris* giuen in wine. But more particularly againſt ſnakes, aders, & the like, the ſaid herbes be right ſoueraigne, either inwardly taken or out-

* Excellent good for women in child-bed. Wherein *Phryis* ſome what overſeen but the error is not great, ſeeing that women with child vſe ordinarily alſo to be brought a bed and lie in. * Meant by *Aristolochie* or Birthwort the round.

* Any herbe good to provoke ſluggiſh luſt. For al- though there be a ſpeciall herbe of that vertue, ſe called by a kind of Synecdoche, all others of like operation may be termed *Satyria*.

A outwardly applied vpon the wound, be it in iuice, ſubſtance of leaſe, or decoction, it ſkillesh not whether: for which purpoſe a dram weight of the root of great *Centaurie* drunke in three cyaths of white wine is excellent: as for *Gentian*, it ſerueth properly againſt ſnakes, if it be taken to the poiſe of two drams with Pepper and Rue, in 6 cyaths of wine, green or dry, it makes no matter. Touch herbe *Willow* or *Lythimachia*, ſerpents cannot abide the very ſmell thereof, but flie from it. If any body chance to be ſtung alreadie by them, there is not a better medicine than to giue *Celandine* in drinke. But of *Betonie* about all the reſt there is made a moſt ſoueraigne ſalue to be laied vnto the place that is ſtung. And ſuch a contrarietie in nature or *Antipathie* there is (by folks report) between them and this herb, that if the leaues thereof be ſtrewed in a circle round about them, the ſerpents within wil neuer giue ouer flapping with their tailles, and bearing their own ſides, untill they haue killed themſelues. Now for their ſting, it is an vſuall praſtiſe to giue inwardly one dram weight of the ſeed of *Betonie* in three cyaths of wine, or els to incorporate 3 drams of the pouder in one ſextar of water, and lay it as a cataplaſme to the ſore. *Cantabrica*, *Diſtannum*, and *Aristolochia*, ſerue likewiſe for good counterpoiſons, in caſe a dram weight of their root be giuen in one hemine of wine. But then the Patient muſt vſe to drinke it often. And verily *Aristolochia* worketh the ſame effect, if it be reduced into a liniment and ſo applied: ſo doth *Piſtolochia*, which herb is ſo aduerſatiue vnto ſerpents, that if you doe but hang it vp in the chimney ouer the hearth, it will chaſe away all kind of ſerpents out of the houſe.

CHAP. IX.

¶ Of *Argemonie*, *Agarick*, and *Echium*. Of *Henbane* and *Vernaine*. Of *Blattaria* and *Lemonia*. Of *Cinquefoile*, *Carot*, and the *Clot* or great *Bur*. Of *Cyclaminus* or *Sow-bread*, and *Hurſtrung*: beaues all ſingular againſt the ſting of *Serpents*.

THE root of *Argemonia* taken to the weight of one Roman denier in 3 cyaths of wine, is ſingular againſt the ſting of ſerpents. And ſince I am come to mention this herbe, I thinke it conuenient to diſcourſe farther thereof: like as of other ſimples alſo, which I meane to name firſt, before that I treat of their vertues and effects. And in this courſe of ſetting downe medicines, euer as I meet with any herb of any ſingularity, I will range it there whereas I know it to be moſt ſoueraigne and effectually. Wel, this * *Argemony* aforeſaid hath leaues like to *Anemomy*, i. *Rose Perſly* or *Windfloure*: jagged they be in maner of garden *Parſly*. Heads it beareth in the top of euery ſtalke or branch, reſembling thoſe of wild *Poppy* or *Corne-rose*: and a root alſo not vnlike to that of the ſaid herb. A iuice it yeeldeth, yellow as *Safron*, hot, ſharp, and biting in taſt. VVith vs here in Italy it groweth vpon corn lands. Our countrymen haue deſcribed three kinds thereof, but they allow and commend that only, which hath a root ſenting much of *Frankincenſe*.

Touching *Agaricke*, it is a fungous excreſcence growing out of certain trees neare vnto the ſtraits of *Bosphorus*, much like vnto a white Muſhrum. The ordinary doſe or receipt thereof, to be giuen, bruifed, and beaten ſmall into pouder, is to the weight of two drams in two cyaths of *Oxymel* or honied vinegar. That which is found in *Gaule* or *France*, is thought to be weaker in operation. Moreouer, that *Agaricke* is counted the male which is more maſſiue or compact, and bitterer withall: but one ill quality it hath, namely, to make the head to ake. The female is of a more looſe and ſofter ſubſtance: which at the firſt when you taſt it ſeemeth ſweet, but within a while it turneth to be bitter.

Echium is of two kinds. One of them is like to *Peniroyall*, garniſhed & crowned (as it were) with tufts of leaues in the head: which being giuen to the weight of two drams in 4 cyaths of wine, is ſingular good for the venome of ſerpents, inflicted by their ſting. The like effect hath the other alſo, which is diſtinctly knowne from the other by the rough and prickie downe that the leaues do beare, and it carieth in the top little knobs reſembling *vipers heads*: and this may be taken either in wine or in vinegar, chuſe you whether.

The great *Clot-bur*, called in *Greek* *Arcion*, ſome haue named in Latine *Perſonata*. There is not a plant in the field that carieth a broader leaſe, and beſides, furniſhed it is with as big *Burs*. The root of this hearb boiled, the *Phyſicians* preſcribe to be giuen in vinegar to drinke againſt the ſting of ſerpents.

Hen-

* An hearbe like to the wild *Poppie*.

Henbane, stamped leaues and all, is singular to be taken in wine, especially against the sting G of the Aspiders.

* J. Vervaine.

But of all other herbs, there is none more honored among the Romans than * Hierobotane, called also otherwise in Greek Peristereon: which we in Latine name Verbenaca. This is that hearb, which (as I haue declared heretofore) our Embassadors vse to cary with them when they go to denounce war, and to giue defiance vnto our enemies. VVith this herbe the feastiuall table of * Iupiter is wont to be swept and clenfed with great solemnitie; our houses also be rubbed and hallowed, for to driue away ill spirits. And hereof be two kinds. That which they take to be the female, is stored well with leaues; the male hath them growing but thin: yet both of them put forth many small and slender branches, commonly a cubit long, and cornered. The leaues be lesser and narrower than those of the Oke, but deeper they be indented, and the partition wider: the floures be of a * gray colour, the root long and small. It groweth euery where vpon plains subiect vnto waters. Some writers make no distinction at all of male & female, but hold them all to be of one and the same kind, because they work the same effects. In France the Druids vse them both indifferently, in casting lots, telling fortunes, & foreshewing future euents by way of prophesie. But the wife-men or fages called Magi, ouerpasse themselves mightily in this herb, and shew their foolery and vanity without all sence and reason: They would beare vs in hand forsooth, that whosoever be rubbed all ouer the body therewith, shall obtaine whatsoeuer their heart desireth, be able to cure and driue away all manner of agues, reconcile them that be fallen out, make friendship between whom they list, and in one word, giue remedy to any disease whatsoeuer: they giue moreover expresse order, that it be gathered about the rising of the great dog-star, but so, as neither Sun nor Moon be at that time about the earth to see it; with this especial charge besides, that before they take vp the herbe, they bestow vpon the ground where it groweth, honey with the combs, in token of satisfaction and amends for the wrong and violence done in depriving her of so worthie an hearbe. They rest not so, but when these ceremonious circumstances be performed, they inioine them also who are to dig it vp, for to make a circle round about the place with some instrument of yron, and then to draw and pluck it vp with the left hand in any wise & so to fling it aloft ouer their heads vp into the aire, which done, they appoint precisely that it be dried in the shade, leaues, stalkes, and roots, euery one apart by themselves. To conclude, they adde moreover and say, that if the hall or dining chamber be sprinkled with the water wherein Vervaine lay steeped, all that sit at the table shall be very pleasant, and make merrie more jocundly. VVell, to leaue these toies and fooleries, the truth is this, stamp and beat it, giue the juice or powder thereof in wine, it is a good defensatiue against the poison of serpents.

An herb there is much resembling Mullen or Langwort, and indeed so like, as oftentimes one is taken for the other; howbeit, the leaues be not altogether so white, and more little branches it putteth forth, bearing likewise a pale yellow floure: cast this herb or strew it in any place all the moths thereabout will gather to it, whereupon at Rome they call it Blartaria.

The herbe Lemonium yeeldeth a white juice, much like vnto milke, which will harden and grow together in manner of a gum: and it groweth in moist places. The weight of one denarius giuen in wine, is a singular preseruatiue against the dangerous sting of serpents.

As for Cinque-foile or five leaved grasse, there is not one but knoweth it: so common it is, and commendable besides for the * strawberries which it beareth. The Greeks call it Pentapetes, Chamæzelon, or Pentaphyllon: the Latines Quinquifolium. The root when it is new digged, looketh red: but as it beginneth to drie about ground, so it waxeth black, and becometh also cornered. It tooke the common name both in Greeke and Latine, of the number of leaues which it beareth. This herb herein is of great affinitie with the vine, that they both bud, spring leafe, and shed the same together. It is vsed also about purging & blessing of the house, against naughtie spirits or enchantments.

* Pliny herein erreth grossely. Indeed the leaues of Cinque-foile are much like to the Strawberry leafe: but as the one hath no fruit or berry at all, so the other (to wit, the Strawberry-wire) puts forth but three leaues. The same and the wilde,

As for Sparganium, an herb so called by the Greeks, the root thereof is good to be giuen in white wine against venomous serpents.

Of Carrots, *Petronius Diodotus* hath set downe 4 feuerall kinds. But what need I to go through them all foure, seeing they may be reduced well enough into * twaine, and doe require no other distinctions. The best and most approved Carrots be those of Candy: the next to which in goodnesse come out of Achaia. But generally in what countrey soeuer they grow, the better be

A be such as come vp in the fonder and drier grounds. As touching the Candy Carot, it resembleth fennel, but that the leaues stand more vpon the white, they be smaller also and hairy withall. The stem groweth vp right a foot high, and hath a root odoriferous to smell vnto, and of a most pleasant tast: this ioieth in stony places exposed to the South quarter of the world. As for the other Carots of a wild nature, In what countrey grow they not? you shall finde them vpon earthie bankes and hills, you shall haue them about high waies, but neuer shall a man meet with them in a leane and hungry ground; they loue a battle and fat soile: their leaues come neare to the Coriander: their stem ariseth to a cubit heighth, bearing round heads, three ordinarily, and otherwhiles more: the root is of a woody substance, and being once dried, it serueth to no purpose. The seed of this kind is like vnto Cumin; but of the former, to Millet grain, white, quick, and sharp; and they be all odoriferous and hot in the mouth. The seed of the second is more ægre and biting than the former, and therefore ought to be taken in lesse quantitie. As for the third kind (if we list to make so many) it is much like to the wild Parsnep, called in Greek Staphylinos, and in Latine Pastinaca Erratica: the same beareth a seed somewhat long in form, and a sweet root. All the sort of these Dauci or Carots, are safe enough from the bit of four-footed beasts both winter & summer, vnlesse it be after they haue cast their abortiue fruit before time [for then they seek therto to be clenfed of their gleane.] Of all Carots, the seeds be vsed only: but that of Candie affordeth the root also, which is sweet: but both the seed of the one sort and the root of the other, be most appropriat remedies against serpents: a dram weight in wine is a sufficient dose at a time: which also may be giuen in a drench to foure-footed beasts that be stung by them.

C Touching the herb Therionarca (I mean not that which the Magitians vse) it groweth also in this part of the world here with vs in Italy: many branches it putteth forth, and springs thick with diuers shoots from the root: the leaues be of a light green, and the floure of a red-rose colour: it killeth serpents outright; besides, it hath this property, That if it be brought neere vnto any wild beast whatsoeuer, it benummeth their senses [whereupon it took that name.]

Perfolata, which the Greek writers call * Arcion, there is not one but knoweth: large leaues it hath, and bigger than the very Gourds; more hairy, blacker also and thicker; a white root and a great: this root taken in wine to the weight of two deniers Roman, is good likewise against the venom of serpents. In like manner, the root of Cyclaminus or Sow-bread is as effectual against them all: leaues it hath somewhat resembling those of Ivy, but that they be of a more duskyish and sad Greene, smaller also and without corners, wherein a man may perceiue certaine whitish specks. The stem is little, and hollow within: the flours of a purple colour; the root broad (so as a man would take it to be a Turnep) and couered ouer with a black rind: it groweth in shadowy places. Our countrymen here in Italy call it in Latine Tuber terræ, that is to say, The knur or bunch of the ground. Sowne and planted it would be in euery garden about an house, if so be it be true that is reported of it; namely, that whosoever it groweth, it is as good as a countercharm against all witchcraft and forceries: which kind of defensatiue is called properly Amuletum. Moreover, this root (they say) if it be put into a cup of wine, turneth the brain presently, and maketh as many drunk as drink thereof. For the better keeping and preseruing of this root, it must be ordered after the manner of Squilla or Sea-onion roots, (i.) cut into thinne slices or roundles, then dried, and so laid vp: the same also is vsually sodden to the consistence or thicknesse of hony. As good as this root is in those former respects, yet it is not without some venomous quality; for it is commonly said, That if a woman with child chance to step ouer it, shee will fall presently to labur before her time, and lose the fruit of her wombe. A second kind of Cyclaminus or Swine bread I finde, synamed by the Greekes * Cissanthemos, growing with stems full of knots or joints, hollow within and good for nothing, far different from the former, winding and clasping about trees; bearing berries much like to those of Ivy, but they are soft; a white floure faire and louely to see too, but a needlesse root for any goodnesse in it: the berries that it beareth be only in vse, and those are of a sharp and biting tast, & yet they be viscous and clammy to the tongue: these being dried in the shadow and stamped, are afterwards reduced into certain bals or trofches. My self haue seen a third kind also of Cyclaminus, carying the name besides of Chamæcissos, which brought forth but one only leafe: the root was much forked & diuided into branches, wherewith folk vsed to kil fishes. But among al other herbs of name, Pentedanum is much talked of and commended: principally, that which groweth in Arcadie: next

* Some take it to be the Clotbur, or Butterbur.

* *Microglossis*, *Dioscor. id. eff.* Leaved like to *Iris*.

to it, most account is made of that in Samothrace: a slender stalk it carrieth and a long, resembling the stem of Fennell: neere vnto the ground it is replenished well with leaues: the root is black, thick, full of sap, and of a strong and vnpleasant smell: it delighteth to come vp and grow among shady mountains. The proper time to dig it out of the ground, is in the later end of Autumne: the tenderest roots and those that run deepest downe into the earth, are most commendable. The manner is to cut these roots ouerthwart into certaine cantels or pieces of foure fingers in length, with kniues made of bone, whereout there issueth a iuice which ought to be dried & kept in the shade: but the party who hath the cutting of them, had need first to annoint his head all ouer and his nostrills with oile rofat, for feare of the gid; and least he should fall into a dizzinesse or swimming of the braine. There is another iuice or liquor found in this plant lying fast within the stems thereof, which they yeeld forth after incision made in them. The best iuice is knowne by these marks; It carrieth the consistence of honey, the colour is red, the smell strong, and yet pleasant, and in the mouth it is very hot and stinging. Much vse there is of it in many medicines, as also of the root and decoction thereof: but the iuice is of most operation, which being dissolved with bitter almonds or rue, people vse to drink against the poison of serpents; & in case the body be annointed all ouer with oile, it preserueth them safe against their stings.

CHAP. X.

¶ Of ground Elder or Wallwoort. Of Mullen or Taper-wort. Of the Aconit called Thelyphonus. Of remedies against the pricke of Scorpions, the venome of Hedge-toads, the biting of mad Dogs: and generally against all poysens.

THe smoke or perfume also of V Valwort (a common herb and knowne to euery man) chaseth and putteth to flight any serpents. The iuice of * Polemonia, is a proper defensatiue especially against scorpions, if one haue it tied about him or hanging at his neck: likewise it resisteth the prick of the spiders Phalangia, and any other of these venomous vermins of the smaller sort. Aristolochia hath a singular vertue contrary vnto serpents: so hath Agarick, if foure oboli thereof be drunke in as many cyaths of some artificiall or compound aromatized wine. Vervaine is a soueraigne herb against the venomous spider Phalangium, being taken in wine or oxycrat, i. vineger and water: so is Cinquefoile, and the yellow Carrot.

That herb which the Latines call Verbascum, i. Lungwort or Hightaper, is named in Greek Phlomos. Two special kinds there be of it: the one is whiter, which you must take for the male; the other black, & that may go for the female. There is a third sort also, but it is found nowhere but in the wild woods. The leaues of all the former, be broader than those of the Colewort, and hairy withal: they beare a main vpriight stem, a cubit in height with the vantage: the seed is black and of no vse in Physicke: a single root they haue, of a finger thickness. These grow also vpon plains and champion grounds. The wild kinde beareth leaues resembling fauge: the branches be of a woody substance, & the same grow high. There be moreover of this kind two other herbs named * Phlomidis, both of them hairy, their leaues be round, and they grow but low. A third sort there is besides, named by some Lychnitis, and by others Thryallis: it sheweth 3 leaues or foure at the most, and those be thick & fat, good to make wyks or matches for lights. It is said, that if figs be kept in the leaues of that which I named the female, they will not rot. To distinguish these herbs into seuerall kinds, is a needlesse peece of work, considering they agree all in the same effects: their root together with rue, is to be drunk in water against the poysen of scorpions: true it is, that the drinke is very bitter, but the effect that it worketh maketh amends.

¶ Some take these for the Cowslip and Primrose.

¶ Aconitum Pardalianches, Hébard. baine.

There is an herbe called by some * Thelyphoton, by others Scorpion, for the resemblance that the root hath to the Scorpion; and yet if Scorpions be but touched therewith, they will die thereupon: no maruell therefore if there be an ordinary drinke made of it against their poysen: [and here commeth to my mind that which I haue heard, namely, that if a dead scorpion be rubbed with the white Ellebore root, it wil reuiue and quicken again.] The said Thelyphoton hath such a spiteful nature against the four-footed beasts [of the female sex] that if the root be laid to their snout or naturall place, it killeth them: and if the leafe, which is like vnto the Cyclamin or Sowbread leafe aboue named, be applied in that maner, they will not liue one day to an end. This herb is parted and diuided into knots or joints, taking pleasure to grow in coole and shady places. To conclude and knit vp these remedies against Scorpions, the iuice of Betonie, and

A of Plantaine likewise, is a singular remedie for their poison.

Moreover, Frogs (such especially as keep in bushes and hedges, and be called in Latine Rubetæ, i. toads) are not without their venom: I my self haue seen these vaunting Montebanks calling themselves Psylli, as comming from the race of those people Psylli who feared no kind of poison; I haue seen them (I say) in a brauery (because they would seem to surpass all others of that profession) to eat those toads baked red hot between 2 platters; but what became of them? they caught their bane by it, and died more suddenly than if they had bin stung by the Aspis: but what is the help for this rank poison? surely the herb * Phrynon drunk in wine. Some call it Neuras, others Poterion: pretty flours it beareth: the roots be many in number, full of strings like vnto sinews, and the same of a sweet & pleasant sent. Likewise Alifura is counted another

* Some take it for Ruta muralis, or Salvia vira, a kind of Sixirage or rather Maiden-haire.

B remedy in this case: an herb it is, called by some Damoforium, by others Liron: the leaues might be taken for Planta in, but that they be narrower, more iagged and plaited, bending also toward the ground; for otherwise ribbed they be and full of veins, as like as may be to Plantain. As for the stalk, it is likewise one and no more, plain and slender, of a cubit in height, in the head whereof it hath knobs, roots growing many and thick together, and those but small, like vnto those of the blacke Ellebore, but they be hot and biting, of a sweet and odoriferous smell, and of a fatty substance withall: it groweth ordinarily in watery and moist places. And yet there is a second kind of it which commeth vp in woods, of a more dusky and blacker colour than the former, bearing bigger leaues: the root of both is of singular operation against the venomous frogs or toads abouesaid: also against the sea-hare, if it be taken in wine to the weight of one dram. And

C since we haue mentioned the sea-hares, take this withall, That Cyclaminos also is soueraigne against their venom. Moreover, a mad dog letteth in a dangerous poison by the wound that his tooth maketh, against which there is not a better thing than dog-rose of the Eglantine called Cynorrhodon, as I haue before declared. Plantain is a singular herb against the biting of any venomous beast whatsoever, whether it be taken inwardly in drink, or outwardly applied. Betonie is likewise good therefore if it be drunk in old wine. Veruain, which the Greeks call Peristereos, is an herb bearing one main stalk of a good height, furnished well with leaues, spreading forth toward the head into other branches, much fought to by doves and pigeons, whereupon it took the foresaid name Peristereos. They say, whofoeuer carry this herb about them, there dare not a dog bark at them. Thus much as touching the dangers proceeding from venomous beasts.

* Whereof he writeth in the beginning of the sixt chapter of this booke.

* Euplasindeed signifieth in Homer, a bon-voiage, or prosperous nauigation: but what is that to this place? No doubt Plinie should haue read in Theophrastus, which is no hearb, but the happinesse of a good name among men, whereof Plinie speakeh here, & which Theophrastus attributeth to Antirrhinon, as one of the effects of that hearb. But I say the fault (I pray you) as well here as elsewhere, v. p. Plinies Angnosts or Readers, who either read wrong, or pronounced not their words distinctly and plainly vnto

D What remaineth now but in the next place, to treat as well of such forceries and maleficiall poisons, as men haue deuised and practised to the mischief of their own kind, as of their remedies: where in the first place there presenteth it self vnto vs that noble herb Moly, so much commended by the Poet Homer, as a soueraigne preseruatiue not only against all those wicked inventions, but also against the secret and diuinish practises; to wit, charmes and enchantments, wrought by Art magick and witchcraft. Next vnto which, the herbs * Mithridation, Scordotis, and Centaury: also the seed of Betony drunk in honied wine or sweet cuit: the powder also of the dried herb it selfe, to the weight of one dram taken in 4 cyaths of old wine, doth expell out of the body & euacuat by the seege any poison whatsoever; but the patient must be forced to vomit vp the first potion, and then to recharge again & take another draught of the foresaid medicine. And verily it is a common speech, That whofoeuer vse to tast every day a little of Betony, shall neuer catch harm by any poisoned cup. If a man or woman chance to haue drunk down any poison, the root of Aristolochia is a present remedy, vsed in that order as I haue prescribed before in case of stinging by venomous serpents. The like effect hath the iuice of Cinquefoile.

E Semblably Agarick, if it be taken to the weight of one denier Roman in three cyaths of honied water or mead, is of the same operation; with this charge, That the party do lay vp his stomack or cast before. There is an herb called Calves-snout, in Greeke Antirrhinon or Anarrhinon, a kind of wild Lichnis like vnto Line or flax, with little or no root at all, carying a floure resembling the Hyacinth or Crowtoes, and the seed much like a calves snout or muzzle: the Magitians haue a great opinion of this herb, That whofoeuer be rubbed all ouer with it, or annointed thoroughly with the iuice thereof, shall looke more beautifull, louely, and amiable: and whofoeuer weareth it in a bracelet about the wrist or arme, shall take no harme by charme, forcerie, witchcraft, or poison. The like conceit they haue of another herb called * Euploea; and they affirme, That if any man or woman be annointed therewith, they shall grow in great credit and reputation with the people. Moreover, they say, that the herb Artemisia or Mugwort will preserve him.

all those who haue it about them, from witch-craft, forcerie, and poison, from danger by venomous beasts, yea and from the hurtfull and maligne aspect of the very Sun. The same, if it be taken in wine, helpeth and saueh those that are poisoned with Opium: being either drunke, or worn about the neck, or but tied to any part of the body, it hath a peculiar vertue against the venom of todes. There is an herb of the bulbous or onion-root kind named * Pericarpum; whereof the two sorts, the one hath a red bark or rind [about the roots], the other a black, and is like vnto the Poppy; of greater operation this is than the former, but both of them be very hot: which is the reason, they serue to good purpose for to be giuen vnto them that haue drunk Hemlock: against which venomous herb, Frankincense, and Panaces (especially that which they call Chironium) be counted singular: and this Panaces also last named, is an excellent antidote for them that are poisoned with venomous Mushrooms.

CHAP. XI.

Proper receipts and remedies for the diseases of the head.

Since wee are waded so far into the deep secrets of Physick, it will not be amisse to proceed forward and to set downe many good medicines for all the maladies incident either in generall to the whole body, or particularly to euery speciall part and member thereof, beginning first at the head.

There is an vnseemely accident happening otherwhiles to the head, and disgraceth it much, called * Alopecia, when as the haire vnnaturally falleth off. The cure of this inconuenience, is to make a liniment with the roots of Nymphaea and Hemlocke stamped together, and therewith to annoint the bald and naked places, for it will cause the haire to come vp againe & grow thick. Polytricha & Callitrica [both capillare herbs] differ one from another, for that Polytricha hath white benty filaments or threds, the leaues be also more in number & greater with all: besides, the very plant it selfe spreadeth and brancheth more than the other: this herb is singular to fasten the haire of the head at the root, and to make it bush and grow thick, being otherwise ready to shed. In like manner, there is an herb called in Latine * Lingulaca, which loueth to grow about Springs or fountains, & is singular for the same imperfection of shedding haire, if the root together with the leafe burnt and beaten to powder, be incorporate with the greafe of a blacke sow (but in any wise she must be a yong guilt that neuer farrowed or had pigs) and so brought into a liniment, and the head rubbed and annointed therewith: with this charge besides, That after the annointing, the Patient sit bare-headed in the sun; for that helps forward the cure verie much. And in the same case there is the like vse of the Cyclamine or Sowbread root.

Touching the scurfe or brannie scales called Dandruffe, the root of Veratrum or Ellebore, sodden either in oile or water, maketh a most excellent medicine to rid it away, & to cleanse the head thereof.

As for head-ache, the roots of all the kinds of Panaces, stamped and tempered with oile, doe cure the same: so doth Aristolochia and Iberis, if they be applied in manner of a frontall and bound to the forehead, the space of an houre or longer if the Patient can abide it, so that a bath be vsed presently vpon it. The yellow carot also called in Latine Daucum, is a good remedy for the pain in the head. Moreover, the foresaid herb or root Cyclaminos, if it be mixed with hony and put vp as an errhin or nasal into the nostrills, purgeth the brain, & the same brought into an ointment, healeth the scalls and sores in the head. Of the like operation is Veruain, which they call in Greek Peristereos. The wild Caraway, named Cacalia or Leontine, beareth certain grains resembling smal seed pearls, which a man shal see hanging between the leaues, which be big & large: and it groweth lightly vpon hills: take 15 of these grains or seeds, steep them well in oile, and make thereof a liniment, it is passing good to rub and annoint the head withall, so it be done vpward against the haire. Furthermore, the herb Callitriche, is singular good to prouoke sneezing: it beareth leaues much like vnto those of Lentils or Ducks meat: the stalks be very small like fine bents, and the root is as little: it delighteth to grow in coole, shady, and moist grounds, and is of a sharp and hot taft.

For the lowfie disease, wherein lice and such vermin cawle in exceeding abundance all ouer the head, there is not a better medicine than an ointment made of hyssope and oyle stamped and incorporat together: the same likewise killeth the itch in the head. Now the best hyssop is that

A that of Cilicia, growing vpon the mountaine Taurus: and in a second degree, there is reckoning made of that which commeth out of Pamphylia and Smyrna. An herb this is, nothing friendly to the stomach: being taken with figs, it purgeth downward, with hony, by vomit: howbeit, stamped with hony, salt, and cumin, and so reduced into a plaster, it is thought to be a proper remedy for the sting of serpents.

B Lonchitis is not the same herb (as most men haue thought) that Xiphion or Phasganion, although the seed be pointed like to a speare head, for it beareth leaues resembling lecke blades, which toward the root be red, and more in number than about the stem it selfe: it carrieth little heads in the top, made after the fashion of maskes or visors, such as players in Comedies are wont to weare, lilling out pretty little tongues, and the roots be exceeding long, & yet it groweth in drie grounds far from water. Contrariwise, * Xiphion or Phasganion delighteth in water-rich and moist places: at the first coming vp, it maketh a shew of a sword blade: the stem riseth vp to the heighth of two cubits: the root hath beards or fringes as it were hanging about it, and is in fashion shaped to a filberd nut: which ought to be digged out of the ground before harvest, and to be dried in the shade: the vpper part of this root (for it groweth double) stamped with Frankincense and mixed with wine of equal weight, and so made into a salve, draweth out the spils or broken scales in the brain-pan or skull: the same is good likewise to draw any impostume that is broken, and to fetch out corruption in any part of the body: and it is singular for the bones that be broken and crushed * vnder cart or waggon wheels: lastly, the same is an effectuell remedy against poisons.

C But to returne againe to the head-ache, the said Ellebore boiled either in common oile, or els in oile of rofat, and applied in manner of a liniment, doth assuage the same, so doth Peucedanum [i. Hare-strange] being incorporat in oile of roses and vineger. The same also being laied vnto the head warm, doth mitigate the pain called the migram, when as the one half of the head doth ache, and it cureth beside, the dizzinesse of the braine. The root of Peucedanum made into an ointment and vsed accordingly, prouoketh sweat, by reason of the hot nature that it hath, which is burning and causticke. The herb Fleawort, which some call Psyllion, others Cynoides, Chrystallion, Sicellion, and Cynomyia, hath a small root, whereof there is little or no vse in Physick. The branches that it bringeth forth, be slender and pliable in manner of vine shoots, bearing in the top certain big berries or knobs like vnto beans, the leaues not unlike to * dogs heads; the seed resemblen dogs fleas, whereupon it hath that name Cynomyia, and the same lieth within the foresaid berries. The herb it selfe is ordinarily growing in vineyards: of great vertue it is to refrigerat and to discusse or resolute withall: but the seed it is which yeeldeth most vse in Physicke, and the same is applied in a frontall to the forehead and temples, with vineger and oile of roses, or else with vineger and water together, for to allay the paine of the head. For other accidents, when it is applied in forme of a liniment, the manner is to take the measure of one acetab, and to infuse it in a sextar of water vntill it gather together into a thicke and clammy substance; then it would be stamped, and the mucilage or slime drawne out thereof serueth for any paine, impostume, and inflammation.ouer and besides, Aristolochia is a singular herb for the wounds of the head: it draweth forth broken bones and spils in any part of the head; and so doth Pistolochia. To conclude, there is an herb called * Thysselum, not vnlike to garden Parsley: the root whereof if it be but chewed in the mouth, purgeth the head of phlegmaticke humours.

CHAP. XII.

Receipts for the diseases of the eies, made of Centaurie, Celendine, Panaces, Henbane, and Euphorbium.

It is thought that the Rha-pontick (which is the greater Centaurie) helpeth the eie fight verie much, if a fomentation be made therewith and water together. The juice of the lesse Centaurie tempered with hony and applied, helpeth the imperfections of the eies; namely, when there seeme gnats to flie before them, or when they are ouer cast with a cloud; for it scattereth the dimnesse and web which darkeneth the sight, and doth subtiliate the catara & cicatrices that ouergrow the ball or apple. The herbe Sideritis is so appropriate vnto the eies, that it cureth the verie haw that groweth in horses eies. But so excellent is the herbe Celendine, that it passeth

* So called, because the fruit claspeth round about the stem or stalk of the herbe.

* Because foxe are much subiect vnto it, who are called in Greeke *procyones*.

* Adders tongue.

* Our Glades or Flags.

* Carpenit.

* Whereupon it is called Cynoides.

* Hydrofelyns, Dodonei, id est Water-parsley.

passeth them all, and is a soueraigne medicine for all such imperfections. The root of Panaces G mixed with parched or fried barley meale, maketh a good cataplasme for to repress the rheume of watery and weeping eyes. And there is a singular drink commended for the staying of such humors, made of Henbane seed one obulus, of Opium or the juice of Poppy and wine as much: Some put thereto the like quantity of the juice of Gentian, which also they vsed to mingle with collyries and eie-salues (that require some sharpnesse and acrimony) * in stead of the foresaid Opium or Poppy juice. Moreouer, Euphorbium clarifies the eie-sight, if there be an inunction made therewith. For bleered eyes, it is good to drop the juice of Plantain into them. As for the thick mists that hinder the eie-sight, Aristolochia doth discusse and resolueth them. The herb Iberis bound vnto the forehead, together with Cinquefoile, stoppeth the fall of humors into the eyes, and cureth all other maladies incident vnto them. Mullen or Lungwort is likewise a great defensatiue against the foresaid rheums which haue taken a course to the eyes, and cause them to water, so is Veruain, if it be applied with oile of rose or vinegar: For the cataraſt or suffusion of the eyes, for the pin and web which offend the eie-sight, the Troches of Cyclamine being dissolved and so applied, are soueraigne. As for the juice of Peucedanum, (i. Hare-strange) it is (as I said before) a notable medicine for to cleare the sight, and rid away the muddy mists before the eyes, if it be laid to with Opium and oile of rose. Finally, Flea-wort staieth and keepeth vp the flux of humors into the eyes, if the forehead be annointed with the mucilage thereof.

CHAP. XIII.

P Of Pimpernell, named Anagallis and Corchoros. Of Mandragoras or Circeium. Of Hemlocke, *Cressmarine* or *Sampire*, named in Greeke *Crithmos Agria*. Of the herbe *Molybdana*. Of *Fumiterre*. Of *Acorus* or *Galangale*. Of *Floure-de-lys*. Of *Coryledon* or *Venus navill*. Of *Sengreen*, and *Parcellane*. Of *Groandswell*. Of *Ephemeron*. Of the *Taxill*, and of *Crowfoot*: with the medicinal vertues of the said hearbes, appropriate to the diseases of the eyes, eares, nostrils, teeth and mouth.

The herbe Pimpernell, some call Anagallis, others Corchoros. Of it be found two kinds; the male with a red floure, the female with a blew: neither of them both be taller than the hand-bredth or a span at most: tender they be likewise in all parts: the leaues be very smal, round, and lying vpon the ground: they grow as well the one as the other in gardens and watery places: that with the blew floure bloweth first: the juice of them both tempered with hony, dispatcheth the mist and dimnesse of the eyes, consumeth the rednesse occasioned by a stripe or bruise, and taketh away the red spots in the white of the eie; and so much the sooner, if the hony be of the best, and made about Athens, wherewith the eyes be annointed. The said medicine likewise is good for to extend and dilate the tunicles that make the ball or apple of the eie: and therefore it is an ordinary course that their eyes be annointed therewith beforehand, who are to be pricked with a needle for couching of a cataraſt. These herbs be singular good likewise for the haw in horses or beasts eyes. The iuice of Pimpernell conueyed vp into the nostrils, cleanseth the braine by the emunctory of the nose, so that afterwards the Patient do draw vp wine into the nostrils, for a collution to wash them. A dram of the said iuice drunk in wine, is a counterpoison against the venom of snakes. But this is strange, and I cannot chuse but maruell of it, that sheep should so much hate and abhor the female Pimpernell as they do: howbeit, in case they should mistake the one for the other because they are so like (for in floure only they differ) and tast the Pimpernell with the blew floure, presently they haue recourse (by a natural instinct) to an herbe for remedy called in Greeke *Asyla*, and by vs in Latine *Ferus oculus* [i. the wild and cruell eie, or *Margellane*.] Some there be, who set down certain ceremonies and circumstances to be obserued by them who are to dig or plucke vp this hearbe; namely, That they goe to this businesse before the Sun-rising, and salute or bid good morrow to it three times, before they speak any other word that morning; and then to take it vp and cast it on high: which don, to presse forth the iuice of it. Thus ordered forfooth, they say it is of better operation, and will do the deed surely.

Touching Euphorbium, what it is I haue sufficiently spoken. The iuice thereof is singular for bleered eyes, especially if they be swelled withall: likewise wormwood stamped and incorporat with hony: as also the powder of Betony. There groweth many times a fistulous vicer betwene

A twene the corner of the eie and the nose, called *Ægilops*, for to heale which sore, there is a soueraigne herbe of that * name growing among Barly: in blade or leafe it resembleth that of wheat: the seed or graine whereof, beaten into powder and mixed with meale or floure, or the juice drawne out of the herbe, they vse for the said purpose to applie vnto the affected place in manner of a salve or liniment. Now the said juice must be pressed out of the stalke and leaues thereof, whiles they be fresh and fullest of sap: but then the haw or care that it beareth, ought to be taken away, which being incorporat with the floure of three moneths corn, is made vp into bals or troches. Some were wont in this cure to vse the juice also of Mandragoras, but they gaue it ouer afterwards. Howbeit, for certain, the root of Mandragoras bruised or stamped, and tempered with the oile of roses and wine, cureth weeping and watering eyes; yea, and assuageth their pain: & the said juice, how soeuer it be rejected in the former case, goeth into many collyries or eye-salues.

This herbe Mandragoras, some writers call *Circeium*; and two kinds there be of it: the white which is supposed the male; and the black, which you must take for the female: the leaues of this female resemble those of the * *Leſtuce*, but that they be narrower: hairy also they are, and al of an * equall bignesse. Two or three roots it hath, and those of a reddish or russet colour without, but white within: of a fleshy substance and tender, running downe into the earth almost a cubit in length. A certain fruit or apple they beare, of the bignesse of Filberds or Hazel-nuts, within which there be seeds like vnto the pippens or Pears. The white Mandrage some name *Arsen*, (i) the male; others * *Morion*: and there be again who call it *Hypophlomos*. The white leaues of this Mandrage be broader than the other, and indeed equall to the garden Docke or Patience:

C In the digging vp of the root of Mandrage, there are some ceremonies obserued: first they that goe about this worke, looke especially to this, that the wind be not in their face, but blow vpon their backs: then with the point of a sword they draw three circles round about the plant: which don, they dig it vp afterwards with their face into the West. There is a juice pressed forth both of the fruit, and also of the leaues shred and minced: of the * stem likewise being first headed or the top cut off; and also of the root, which sometime they do pounce and prick for to let out the liquor, otherwhiles they boile it: and the root so prepared, is as good as the juice. The same also being cut into certain thin rundles they vse to * preferue in wine. Howbeit, Mandrage is not found alwaies and euery where full of iuice: but in what place soeuer such may bee gotten, the right season to seek for it is about vintage time: the sent therof is strong, but the root and fruit do smell the stronger. The apples of the white, when they be ripe, the maner is rodry in the shadow, but the juice drawn out of them, is permitted to stand in the Sun for to gather and harden.

D In like sort, the juice of the root whether it be bruised and stamped, or foddren in grosse red wine to the consumption of a third part. The leaues moreouer of Mandrage are commonly kept and condite in a kind of pickle or salt brine: for otherwise the juice of them whiles they be fresh and green, is pestiferous and a very poison. And yet order them sowl as you can, hurtfull they be euery way: the only smell of them stuffeth the head, and breedeth the murre and the poſe. Howbeit, in some countries they venture to eat the apples or fruit thereof; but those that know not how to dresse and order them aright, loſe the vse of their tongue thereby, and proue dumbe for the time, surprisid and ouertaken with the exceeding strong sauer that they haue. And verily if they be so bold as to take a great quantity therof in drinke, they are sure to die for it. Yet it may be vsed safely enough for to procure sleep, if there be a good regard had in the dose, that it be answerable in proportion to the strength and complexion of the patient; one cyath thereof is thought to be a moderat and sufficient draught. Also it is an ordinary thing to drink it against the poison of serpents: likewise before the cutting or cauterizing, pricking or launcing of any member, to take away the fence and feeling of such extreme cures. And sufficient it is in some bodies to cast them into a sleep with the smel of Mandrage, against the time of such Chirurgery. There be that drink it in lieu of Elletore, for to purge the body of melancholick humors, taking two oboles therof in honied wine. Howbeit, Elletore is stronger in operation for to euacuat black choler out of the body, and to prouoke vomit.

E As touching Hemlock, it is also a ranke poison, witnesseth the publicke ordinance and law of the Athenians, wherby malefactors, who haue deserued to die, were forced to drink that odious potion of Hemlock. Howbeit, many good vertues hath this herb, and would not be rejected and cast aside for the sundry vses therof in Physicke. The seed is euery way hurtfull and venomous.

As

* Pro Meconio:
Ocyetm Di-
oscorides it is
Cynibis.

* Ægilops.
Some take it
for wild Oyes,
others for
Darnell.

* Whereupon
it is called
Thi-dactylus.
* Aquilinus
not call bus,
for Mandrage,
bears no stems
* i. Membrum
virile, vel Ge-
nitale.

* Other Her-
barists describe
Mandrages
without a stem
or stalk.
* Seruator in vi-
no, according
to Cratogeom-
as, where as Dio-
scorides saith,
quodlibet huius
stragatur li-
no, that is to
say, they file
them vp han-
ding by little
threads drawne
through them.

As for the stems and stalks, many there be that do eat it both green & also boiled or stewed between two platters. Light these stems be as kexes, and full of joints like Reeds and Canes: of a darke gray or fullen colour, rising vp many times about two cubits high: and toward the top they spread and branch. The leaues in some sort resemble Coriander, but that they be more tender, and a strong stinking smell they haue with them. The seed is thicker and grosser than that of the Annise. The root likewise hollow, and of no vse in Physicke. The leaues and seed are exceeding refrigeratiue: which if they haue gotten the mastery and vpper hand of any that hath taken them, so as there is no way but one without help, they shal feele themselves begin to wax cold in their extreame or outward parts, & so to die inwardly: howbeit there is a remedy euen then, before the cold haue taken to the vital parts: namely to take a good draught of wine, which may set the body in a heat, and chaufe it again: may if they drinke it with wine, there are no meanes in the world to saue their liues. There is a iuice pressed out of the leaues and floures both together, for that is the right reason, namely whiles it is in flour: the which is pressed out of that seed stamped, being afterwards dried in the Sun and made into bals or trosches, kills them that take it inwardly, by congealing & cluttering their bloud; for this is a second venomous and deadly quality that it hath: which is the cause, that whosoever die by this means, there appear certain spots or specks in their bodies after they be dead. And yet there is a vse of this iuice, to dissolue hot and biting medicines therein in stead of water: moreover, there is made of it a very conuenient cataplasme to be applied vnto the stomack, for to coole the extreame heat thereof. But the principal vertue that it hath, is to repress and stay the flux of hot humors into the eies* in summer time, and to assuage their pains if they be annoyed therewith. It entrench besides into collyries or medicines deuised to ease pain: and verily there is no rheumatick flux in any part of the body but it stoppeth it. The leaues also of Hemlocke doe keepe downe all tumors, appease paines, and cure watering eies. *Anaxilans* mine Author saith, That if a pure maiden doe in her virginity annoynt her breasts with this iuice, her dugs will neuer grow afterwards, but continue still in the same state. True it is indeed, that beeing kept vnto the paps of women in child-bed, it drieth vp their milk: as also extinguieth naturall seed, if the cods and share be annoynted therewith. What remedies they should vse to saue themselves who are adiudged by law to drink it, I for my part purpose not to set down. The strongest Hemlocke and of speediest operation is that which groweth about Sufa in the confines of Parthia. Next to it for fearful working, is that which cometh out of Laconica, Candy, and Natolia. In Greece the Hemlocke of Megara is counted the quickest, and then that of Attica.

Crestmarine or Sampier, called the wild Crethmos, riddeth the eies of the gummy & viscous water that sticketh in them, if it be applied thereto: and if it be made into a cataplasme with fried Barly meale, it assuageth also their swelling.

There groweth commonly an herbe named in Greeke Molybdana, that is to say in Latine, Plumbago, euen vpon euery corne land; in leafe resembling the Dock or Sorrell, with a thicke root, and the same rough and prickly. Let one chew this herb first in his mouth, & then estfoons lick with his tongue the eie, it consumeth and taketh away the * Plumbum, which is a kinde of disease or infirmity incident to the eies.

As touching the first * Capnos, which in Latine is commonly called Pedes Gallinarii, i. hens feet: it groweth about decayed wals and ruinated buildings, among rubbish, & in hedges: the branches be very smal, & spread loosely or scattering, the floure of a purple colour, the leaues green, the iuice wherof discusseth the dimnesse and thickenesse about the eies, and clarifieth the sight: and therefore it is vsually put into eie-salues. There is another herb of the same * name, & like in effect, but different in form from it, which doth branch thicke, and is of a tender substance: the leaues for shape resembling Coriander, and those of a wan or ashie colour, but it beareth a purple floure: it groweth in Gardens, Hort-yards, and Barly-lands. If the eies be therewith annoynted, it cleanseth and cleareth them: but it causeth them to weepe and water, like as smoke doth, whereupon it tooke the name Capnos in Greeke. If the haire of the eie-lids be once pulled forth, and then the edges or brims be annoynted therewith, it will keep them for euer coming vp againe.

* Acoros hath leaues like to the Flour-de-lis, but that they be only narrower, & growing to a longer stele or taile: the roots be black & not so full of veins nor grained, otherwise they agree well with the Ireos root, hot & biting at the tongues end. To smel vnto they are not vnpleasant: and

A and being taken inwardly, they do gently moue rising, and cause the stomack to breake winde vpward. The best Acoros roots be those which come from Pontus: then they of Galatia: and in a third rank are they to be set which are brought out of Candy. Howbeit, the principall and the greatest plenty are those esteemed which grow in the region Colchis neere to the riuer Phasis: and generally in what country soeuer, they that come vp in watery grounds be chiefe: the fresher that the roots be and more newly drawn, the stronger sent and lesse pleasant taste they haue with them, than after they haue bin long kept about ground. Those of Candy be whiter than the other of Pontus. They vse to cut them into gobbets as big as a mans finger, and then hang them within bags or pouches of leather a drying in the shade. I find in certain writers, that the root of Oxymyrine is called Acaros, and therefore some (alluding to the name of Acoros) chuse rather to call this plant Acaron the wild. Well, the root of Acoros is of great operation and effect to heat and extenuate: and therefore the iuice thereof taken in drinke, is singular against catarracts or any accidents of the eies that cause dimnesse. Soueraigne likewise it is taken to be against the venome of serpents.

Cotyledon, named in Latine Vmbilicus Veneris, is a pretty little herb, hauing a tender and a smal stem, a leafe thick & fatty, growing hollow, like to the concavity wherein the huckle-bone turneth, and therupon it took the foresaid name in Greeke. It groweth by the sea side and in rocky or stony grounds: of a liuely green colour, and the root round, much like to an Oliue. The iuice is thought to cure the eies. Another kind there is of Cotyledon, with grosse and * fattie leaues likewise, but broader than the former. Toward the root they grow thicker, which they seem to compass and inclose, as it were an eie. A most harsh & vnpleasant tast it hath: the stem is high, but very slender. This herb hath the same properties which the Flour-de-lis.

Of Sengreen or Houfleeke, which the Greeks call Aizoon, there be two kinds. The greater is ordinarily planted in earthen pans or vessels set out before the windows of houses: which some name Buphthalmos, others Zoophthalmos, and Stergethron, because it is thought so good in loue drinks or amorous medicines: others againe giue it the name Hypogeson, for that it is seen to grow vnder the eaves of houses. There are also who loue to term it Ambrosia & Amerimnos. Here in Italy they call it Sedum the greater, Oculus also, and Digitellus. For the second kinde is somewhat lesse, which the Grecians distinguish by the name * Erithales or Trithales (because it beareth floures thrice in the yeare;) others Chrysothales; and some againe, Isoetes. But both the one and the other they call Aizoon, because they be alwaies fresh and green: according to which name in Greeke, some giue it the Latine name Sempervivum. The greater kind beareth a stem a cubit high and more, and the same of the thickenesse of a mans thumb, with the better. The leaues in the head or top whereof, be like vnto a tongue, fleshy and fat, full of iuice, a good inch broad, some bending downe and coping toward the earth, others standing vpright, but so, as if a man mark their round circle or compass wherein they lie couched, he shal obserue the very proportion of an eie. The lesse Sengreen or Iubarb groweth vpon wals, and specially such as be ruinated and broken down: likewise vpon the tiles of house-roofs. This herb is tufted with leaues from the very root euen to the top of the branches. The leaues be narrow and sharp pointed, and full of iuice. The stalk groweth a good hand-breadth or span high. The root is not medicinable nor of any vse.

Much like to this is that herb which the Greeks call Andrachne Agria, i. wilde Purcellane; the Italians, Illecebra. The leaues be but small to speake of, howbeit broader than those of the herb before named, and shorter toward the top. It groweth vpon rocks and stony places: & folke vse to gather it for to eat. All these last rehearsed haue the same operation, for they be exceeding cold and astringent withall. Good they be to stay the rheum that falleth into the eies and causeth them to water, whether the leaues be applied to them, or the iuice in manner of a liniment: moreover, they cleanse and mundifie the vlcers of the eies, they do also incarnate, heale, and skin them vp: singular good besides to loose and open the eie-lids, when they are glued and closed vp with viscous gum. The same do allay the head-ache, if either the temples be annoynted with the iuice therof, or the leaues be applied to them. Moreover, they mortifie or kil the poyson inflicted by the prick of the venomous spiders Phalangia: but the greater Sengreen hath this peculiar vertue, to resist the deadly poison of the herb Aconitum. Furthermore it is sayd, that whosoever carry it about them, shal not be stung by scorpions.

All the kinds of them are proper remedies for the pain in the ears. Like as the iuice of Henbane

* Epiphora
afflictus, for
ther affluens,
hot rheumes.

* Some take it
for a Cararact.
* This Fuchus
thinketh to be
Pistochia or
out Aristolo-
chia the roun-
der.
* It seemes to
be our Fumi-
tory, called in
Greeke Capnos.

* Cataplasma.

* Almagre, out
of Dioscor, not
juncus, as
Pliny seemeth
to read, when
he translated
it (Sordidus).

* Which some
take to be
Pick madame
of the French
Trigue-ma-
dame.

* scilla.

bane also, if it be applied moderately, of Achillea and the best Centaury, of Plantaine and Har-
strang, together with oile of rose and Opium: finally, the iuice of Acorns or Galangale vsed with
Roses, is much commended in that case. But this would be noted, that the manner of preparing
of all these iuices, is to heat them first, & then to conuey or infuse them into the ear by a * pipe
for the purpose [called an Orenchyte.] Semblably, the herb Vmbilicus Veneris or Coryledon
is much commended for mundifying the ears, when they run with filthy matter especially, if it
be tempered with deere sewer, and namely of a Stag or Hind, and so instilled hot. The iuice of
the Walwort root clarified and strained through a fine linnen cloth, and soon after dried & har-
dened in the Sun, healeth the swelling impostumations vnder the ears, if as need requireth, it be
dissolued in oile of Roses, and so applied hot. The like effect in that case hath Veruain & Plan-
tain; Sideritis also being incorporat in old Hogs greafe.

After the same manner Aristolochia together with Cyperus, healeth the stinking and ilfauo-
red vlcere of the nose, called Noli-me-tangere.

The root of Panaces, especially that which is called Chironia, if it be chewed in the mouth,
assuageth the tooth-ache: so dothe the iuice thereof, if there be a collution made therewith. The
root of Henbane hath the like vertue, if one chew it with vinegar, as also of Polemonia or sauge
de bois: for which purpose it is passing good to chew the Plantain root, or to wash the mouth
and teeth with the iuice or decoction thereof boiled in vinegar. And the very leaues of Plan-
tain be singular for the pain of the teeth; yea, though the gums were putrified with rank & cor-
rupt blood, or in case there owld or issued out of them filthy bloody matter. And the seed of
Plantain cureth the impostumations of the gums, albeit they gathered to suppuration and ran-
matter. Moreouer, Aristolochia doth knit and consolidat the gums; yea, and fasteneth the teeth
in the head. For these infirmities of gums and teeth, the root of Veruain is highly commended
if it be chewed: or if it be boiled in wine or vinegar, and the mouth washed with that decoction.
The roots of Cinque-foile sodden likewise either in wine or vinegar to the consumption of a
third part, worke the same effect. But looke that before you boile them, they be wel rinced and
washed either in sea water or salt water at the least: and when you vse this collution, see you hold
the liquor or decoction in your mouth a long time. But some there be who thinke it better to
rub the teeth with the ashes of Cinquefoile burnt, leaues, root, and all. Moreouer, the root of
Mullen or Taperwort sodden in wine, maketh a singular collution for the teeth. Likewise if the
teeth be washed with the decoction of Hyssop or the iuice of Harstrang, together with Opium
or Poppie iuice, much good and ease will insue thereupon. As also by the iuice of a Pimpernell
root: and the rather of that which is counted the female, if the same be conueighed vp into the
nostril of the contrary side to the tooth that aketh. There is an herb called Groundswel, which
the Greekes name Erigeron, and we the Latines Senecio: they say if a man make a circle round
about it with some instrument of yron, and then dig it out of the ground, and therewith touch
the tooth that is pained, three feuerall times, and between euery touching spit vpon the ground,
and then bestow the said herb, root and all, in the very same place where he drew it, so as it may
liue and grow again, the said tooth shall neuer ake afterwards.

This Groundswell is an hearbe much like in shape vnto Germander, as soft also and tender
as it, the small stalkes or branches whereof incline to a reddish colour: and it loueth to
grow vpon tiled houses or VValles. The Greekes imposed that name Erigeron, because
in the Spring it looketh hoarie, like an old gray beard: in the top it diuiderth it selfe in-
to a number of heads, betwene which there commeth forth a light plume, much like vnto
Thistle downe: VVhich is the reason that *Callimachus* calleth it *Acanthus*; and others,
Pappos. But in the farther Description of this Hearbe, it seemeth that the Greekes agreed
not: for some haue sayd that it is leaved like to Rocket; others to an Oke, but that they bee
much lesse. There bee VVriters also who hold the root to bee good for nothing in Physicke:
and there bee againe that commend it to bee singular for the finewes: besides, some others
are of opinion, That it strangleth and choaketh as many as drinke it. Contrariwise, certaine
Physicians prescribe it for the laundise to bee taken in Wine: for all the diseases likewise of
the bladder, and against the infirmities of the Heart and Liuer. And they assure vs, That
it scoureth the Reines or Kidneies of all grauell. In case of the Sciatica they haue ordai-
ned it to bee drunke to the weight of a dramme with Oxymell, presently after some exercise
by walking: giuing out, that there is not a better thing in the World for the gripes and trot-
ments

A ments of the guts, if it be taken in sweet wine cuit: esteeming it a singular herbe for the griefe
of the midriffe and precordiall parts about the heart, if it be eaten with meat in a sallad with
vineger: and in regard of these manifold commodities, they sow and nourish it in their gardens
for to be alwaies ready at hand. And some authours I find who haue made a second kind there-
of: but they haue not described what manner of herbe it is, only they appoint it to be giuen in
water against the sting of serpents, and to be eaten for the falling sicknesse. For mine own part, I
will set downe the vse thereof in some cases, according as I haue found it by experience to work
in the practise here at Rome. The plume or downe which it beareth, if it be stamped and redu-
ced into a liniment with Saffron and a few drops of cold water, and so applied, cureth the inof-
dinat flux of waterish humors into the eies. The same dried and parched against the fire, or o-
therwise fried with some cornes of salt, and laid to the swelling wens called the Kings euill, hea-
leth them.

The May-Lillie (called in Greeke Ephemeron) is leaved like vnto the Lillie, but that the
leaues be lesse: the stem is semblable and equall vnto it, vpon which it beareth a * blew floure.
The seed which it carrieth is nothing medicinable. One single root it hath of a finger thicke-
nesse, which is soueraigne for the teeth, if it be cut and minced small, and afterwards sodden in
vineger for a collution to wash the teeth with it warme. The very substance also of the root is
singular good to confirme the teeth standing loose in the head: and to be put into those that
be hollow and worne eaten. Moreouer, the root of Celendine is good for the teeth, if it be brui-
sed or stamped, and so with vineger held in the mouth. If teeth be rotten and corrupt, the black

C Ellebore is singular to be put into their concavities. And both of them (as well the blacke as
the white) serue in a collution to strengthen and keep them fast in their sockets, if they be boy-
led in vineger. As touching the Tazill (which is called in Latine Labrum Veneris) it grows in
riuers and * waters: within the heads or burs which it beareth, there is found a little worne or
grub, which for the tooth-ache they vse to binde about the teeth, or to put it in their holes and
close them vp with wax. But when that herbe is pulled out of the ground, great heed must be
taken that it touch not the earth. The herbe Crowfoot is called in Latine Ranunculus, in Greeke
Barrachion; whereof be foure kinds: The first beareth leaues like vnto Coriander, but that
they be fatter, and as broad as those of the Mallow, of a swert colour: the stalke is whitish or
gristed and slender, the root also white: it groweth ordinarily along great rode waies, especial-
ly in cold, shadowie, & moist places. The second is better furnished with leaues, and those more
cut and indented than the former, and riseth vp with greater and higher stalks. The third is the
least, hauing a strong sent, and bearing a yellow floure like vnto gold. The fourth is like to this,
and hath likewise a yellow floure. They be all of them of a causticke and burning qualitie. For
lay but the leaues raw and Greene (as they grow) vpon any place, they will raise blisters in the
skinne, as well as a light coale of fire: which is the reason, that they bee much vsed for lepro-
sies and foule scabs; also to take out any markes imprinted in the skinne, or vnseemely scarre.

In summe, it is one of the ingredients that go to the making of all potentiall cauterics or cau-
sticke medicines. VVhere the haire is gone, and the place bare and naked, they vse commonly to
aplie these hearbes for to recover the haire againe: but they must be soone remooued. For
tooth-ache also it is an ordinary thing to chew of their roots, but if one continue so long, it will
burst their teeth in pieces. The same being cut into roundles, and dried, and so beaten into
pouder, serueth to prouoke sneezing. Our Herbarists here in Italy call this hearbe *Strumæ*:
because it helpeth and cureth the wens named *Strumæ* or the Kings euill, and the flat biles or
pufes called *Pani*, if the same be hanged vp afterwards in the chimney to take smoke. For
this opinion they haue, and be verily perswaded, that if it be set again into the ground, the wens
and biles aforesaid which were healed, wil returne and be fore again. The like sorcery and witch-
craft they vse with Plantaine: but in truth, the iuice of Plantaine is singular good for the can-
kers or vlcers within the mouth: so are the leaues and roots, if they be only chewed, yea though
the patient or diseased person were troubled with the spitting theume; for they intercept all
those defluations, which take a course into the mouth. Cinque-foile is a very soueraigne herb
for the sores of the mouth, and for stinking breath. *Psyllium*, i. Fleawort, is good for the vlcers
thereof.

But since I haue named a stinking breath, which is a foule and nastie disease, putting man
or woman to shame, as no infirmity more; I will set downe one or two compound receipts for
that

* *Discozides*
(such white)* It contains
water indeed
within the
concavities or
armes-pi (as
it were) of the
leaues where
they ioine to
the stem, but
specially in riuers
it grows not.Latter *Discoz*
is white.

that imperfection. Take Myrtle & Lentisk leaues, of each a like weight, of the Gal-nuts grow-
ing in Syria, halfe as much in quantity, stamp them all together, and in the stamping, sprinckle
them with good old wine: giue the patient this composition in bole to chew and eat in the
morning, there is not the like medicine vnto it for a sweet breath. Also take Ivy berries, Cassia or
Canell, and Myrrhe, of each an equall weight, incorporat them with wine in manner aforesaid,
and vse this confection accordingly. For the sores that be incident to the nose, the feed of dra-
gons made into powder, and tempered with hony, is singular to be applied therunto, yea though
they were very cankers, and had eaten deep. Where the skin looketh blacke and blew, whether
it be vnder the eies, or otherwise in any part of the visage, a salue made of Hyssope applied ther-
to, restoreth it to the fresh and natue colour. To conclude, a liniment of Mandragoras taketh
out the markes or prints that be branded or seared in the face [if it be applied presently while
they be fresh.]



THE TWENTY SIXTH BOOKE OF THE HISTORIE OF NATURE,

WRITTEN BY C. PLINIUS
SECVNDVS.

The Proeme.

CHAP. I.

¶ Of medicines appropriate and respectiue to al other parts and members of the body. Of
certaine new maladies: and namely, of the ill fauored reter called Lichenes:
what kinde of infection it is, and when it first entred into Italy.
Of the blain or sore called the Carbuncle. Of the filthy
leprosie or wild scab named Elephantia-
sis. And of the Collicke.



Long is it not since the face and visage of men began to be annoied with certaine
new and strange diseases, vnknowne in our forefathers daies, and neuer heard of
before in Italy, nor almost in any part of Europe. And euen of late daies when
these maladies first set foot in these parts, they were not seene for to spread
throughout all Italy, ne yet to range greatly in Illyricum, France, or Spain, al-
though some little sprinckling there was in those countries: but about Rome
only and those quarters adioining, as they rained first, so they raged most. These new-come
diseases verily were nothing painfull to the Patients, nor dangerous any waies and deadly; but
so foule and filthy, so loathsome and ougly, that a man would haue chosen rather to die any
death, than to be so disfigured. But of them all, the worst and most detestable was that, which
by a Greeke name they called Lichenes, and in Latine (because ordinarily it began about the
chin) * Mentagra. A terme giuen vnto it (I assure you) at the first by way of yeast and in a meri-
ment (as commonly we see many are disposed to play and make good game at other mens mi-
series) but afterwards it went currant in euery mans mouth: and by no other name than Menta-
gra was it known, notwithstanding the disease possessed not the chin alon, but in many that had
it, took vp the whole visage, all saue the eies, yea, and ran downward to the neck & breast, spread-
ding also to the armes and the very hands: and in such sort was the skin of the poore wretches
be painted

* For Mentum
in Latine is a
chin.

he painted and beraied with foule scurfe and filthy scales, as it would haue pittied one at the
heart to see them. This contagious disease, our fathers and ancestors in times past neuer heard
of, nor knew what it meant: for the first time that it crept into Italy, was in the daies of *Tiberius
Claudius* late Emperor of Rome, euen about the middle of his raigne; and that was by the means
of a certain knight or gentleman of Rome borne at Perusum, who being secretary or clerke vnto
the Treasurer vnder the Romans in Asia, and giuing attendance according to his place, chan-
ced there to be infected, and so hee brought the disease ouer with him to Rome. But will you
heare the strange nature of this foule cuil? women were not subiect vnto it; no more were slaues,
base and poore commoners, no nor citizens of mean state and condition: the greatest gentlemen
and those of the nobility, it made choise of, and picked them from among the rest: very cat-
ching it was, and soone passed from one to another, especially by the mouth, and * by the means
of a kisse were it neuer so short: foule and ill-fauored enough was the disease it selfe, but the
fear, remaining after it was healed (for many there were who came vnder the Chirurgians hand
and indured the cure) looked a hundred times worse: and why? no way there was to rid it, but
by caustick medicines or potentiall cauteries; and vnlesse the flesh were eaten away to the very
bones, it was not possible to kill and root it out clean, but it would reuiue and spring again: and
verily there came Physitians and Chirurgions out of Egypt (a countrey apt to breed the like,
diseases and where they be common) such as professed only the skill in this kind of cure, who
filled their purses well, and mightily enriched them selues by their practise at Rome: for well
known it is, that *Manlius Cornutus* (late L. Pretor, and lieutenant general for the state in the
provinde of Guienne or Aquitaine in France) dealt with one of these Egyptian leeches for to be cu-
red of this disease, and agreed to pay him 200000 Sesterces for his paine. And thus much of
Mentagra.

Moreover, what a wonderfull thing is this obserued in these new kind of maladies, that many
times (contrary to the course of other sicknesses) they come together in troupes; that some of
them should all on a sudden light vpon a particular country; that they should take to one cer-
taine member of mans body; assaile those of such an age and no other, haue a spight to persons
of this or that quality, and spare the rest; as if they made choise, some to plague young chil-
dren, others elder folk; some to punish none but the rich and mighty, others to be doing with
the poore and needy? In our Annals or Chronicles we find vpon record, That while *Lucius Paulus*
and *Q. Marcius* were Censors of Rome, the pestilent carbuncle (a disease appropriat to Pro-
uance and Languedoc in France) came first into Italy. Of which maladie, there died within the
compasse of one yeare (about that very time when I compiled this worke and history of mine)
two noble men of Rome and late Consuls; to wit, *Julius Rufus* and *Q. Laccianus Bassus*: of which
two, the former was cut for it by the counsell of vnskillfull Physitians, and * by that means lost
his life. As for the other, hauing it vpon the thumb of his left hand, he chanced * to pricke it
himselfe with a needle; and although the wound was so small, that hardly it could be seene and
discerned, * yet it cost him his life. This carbuncle riseth ordinarily in the most hidden and se-
cret parts of the body, and for the most part vnder the tongue: it is hard and red in manner of the
swelling veines called in Latine Varices: and yet in the head it looketh blackish; the skin also
about it seemeth swert and dead: it stretcheth the skinne and the flesh in some sort stiffe, but
without any great swelling; no paine at all, no itching, no other symptome but sleepe, where-
with it so possesseth the Patients, that in three daies it will make an end of them. Otherwhiles
it causeth the party to fall into a quivering and shaking as it were for cold, and raiseth certaine
blisters or angry pimples round about it; and verie seldome causeth an Ague: but looke in
whom soeuer it taketh to the stomacke or throat, it quickly dispatcheth and maketh an end of
them.

As touching the white leprosie, called Elephantiasis (according as I haue before shewed) it
was not seen in Italie before the time of *Pompey* the Great. This disease also began for the most
part in the face, and namely it tooke the nose first, where it put forth a little specke or pimple
no bigger than a small Lentill; but soone after, as it spread farther and ran ouer the whole body,
a man should perceiue the skin to be painted and spotted with diuers and sundry colors, & the
same vneuen, bearing out higher in one place than another, thicke here, but thin there, and hard
every where; rough also, like as if a scurfe or scab ouerran it, vntill in the end it would grow to be
blackish, bearing downe the flesh flat to the bones, whiles the fingers of the hands, and toes of
the

* Vteli trans-
fusa scul: for
men vldo
salute one a-
neeler by a
kisse.

* Either by
some mortifi-
cation or effu-
sion of blood.
* Collicia au
impusa.

* It seemeth
by a gangrene.
* Most of these
signes shew a
gangrene and
canker, rather
than our car-
buncle.

the feet were puffed vp and swelled againe. A peculiar malady is this, and naturall to the Egyptians; but look when any of their kings fell into it, wo worth the subiects and poore people: for then were the tubs and bathing vessels wherein they sat in the bain, filled with mens blood for their cure. But surely this disease continued not long in Italy, before it was quite extinguished: like as another before it, and in old time * *Gemurfa*, which began between the toes: and so long agoe it is since any haue bin troubled therewith, that the very name also is forgotten and grown out of vse. Whereby the way, this is to be noted as a strange and wonderfull thing, That some of our diseases should haue an end and lose their course for euer; and others againe continue still: as for example, the cholique passion, which came among vs no longer agoe than in the daies of *Tiberius Caesar* the Emperor: and the first that euer felt it, was the prince himselfe; whereupon arose no small question throughout the whole city of Rome: for when as the said Emperour published a certain proclamation, wherein he excused himself for not comming abroad to manage the affaires of the State, because he was sick of the cholique; the Senat and people reading this strange name of an vknowne maladie, entred into a deep discourse with themselves, what to thinke and make of it? But what should we say of all these kinde of diseases? and what an anger and displeasure of the gods is this, thus to plague and punish vs? Was it not enough to haue sent amongst men into the world a certaine number of maladies otherwise, and those not so few as three hundred, but we must be in feare and danger still every day of new? and yet see! as many as there be of them coming by the hand of God, yet men thorow their owne excessse and disorders, bring as many more vpon themselves, and be causes still of farther troubles & miseries. Well, thus you see by that which I haue written in the former bookes, what was the old Physicke in times past; namely, consisting of the simples onely found in dame Natures garden, and how she alone at the first and for a long time, was our Physitian and furnished vs with remedies for all diseases.

CHAP. II.

¶ The praise of Hippocrates, and other Physitians meere Simplests.

Hippocrates verily had this honor aboue all men, That he was the first who wrote with most perspicuity of Physicke, and reduced the precepts and rules thereof into the bodie of an art: howbeit, in all his bookes wee find no other receipts, but herbes. Semblably, the writings of *Dioscles* the Carystian, were no lesse stored with the like medicines, and yet a famous Physitian he was, and both in time and reputation next and second to *Hippocrates*. *Praxagoras* also, and *Chrysippus*, yea and after them *Erasistratus* held on the same course. As for *Herophilus*, although he was the first that went more exquisitely to work and brought in a more subtil and fine method of Physick, yet none esteemed better of simples than hee. But surely, practise and experience (which as in all things else is found to be most effectually, so in the profession of Physick especially) began in his daies by little and little to slake, vntil in the end all their Physicke proued nothing but words and bibble babbles; for beleue me, his schollers and disciples thought it more for their ease and pleasure to sit close in the schooles and heare their discourses out of the chaire discourse of the points of Physicke, than to go a simpling into the deserts and Forrests to seeke and gather herbes at all seasons of the yere, some at one time, and some at another.

CHAP. III.

¶ Of the new practise in Physicke: of *Asclepiades* the Physitian: and what course he tooke to alter and abolish the old Physicke for to bring in the new.

What cunning means soeuer these new Physitians could deuise to ouerthrow the ancient manner of working by simples, yet it maintained still the remnants of the former credit, built surely vpon the vndoubted grounds of long experience; and so it continued till the daies of *Pompey* the Great, at what time *Asclepiades* a great Oratour and professor of Rhetoricke went in hand to peruert and reiect the same: for seeing that he gained not by the said Art sufficiently, & was not like to arise by pleading causes at the bar, to that wealth which

A he desired (as he was a man otherwise of a prompt wit and quick spirit) he resolved to giue ouer the law, and suddenly applied himselfe to a new course of Physick. This man hauing no skill at all, and as little practice, considering he neither was well studied in the Theoricke part of this science, nor furnished with knowledge of remedies which required continuall inspection & vse of simples, wrought so with his smooth and flowing tongue, and by his daily premeditated orations gained so much, that he withdrew mens mindes from the opinion they had of former practise, and ouerthrew all. In which discourses of his, reducing all Physick to the first and primitive causes, he made it a meere coniectural Art; bearing men in hand, that there were but five principall remedies which serued indifferently for all diseases, to wit, in Diet, Abstinence in meat, Forbearing wine otherwhiles, Rubbing of the body, Walking, and the * Exercise of gestations. In sum, so far he preuailed with his eloquent speech, that euery man was willing to giue care & applause to his words: for being ready enough to beleue those things for true, which were most easie; and seeing withall, that whatsoeuer he commended to them, was in each mans power to perform, he had the general voice of them: so as by this new doctrine of his, he drew all the world into a singular admiration of him, as of a man sent & descended from heauen aboue, to cure their griefs and maladies. Moreouer, a wonderfull dexterity and artificiall grace he had to follow mens humors, and content their appetites, in promising and allowing the sick to drink wine, in giuing them effsoons cold water when he saw his time, and all to gratifie his patients. Now for that *Herophilus* before him had the honor of being the first Physitian who searched into the causes of maladies: and because *Cleophantus* had the name among the Antients, for bringing wine into request and setting out the vertues thereof: this man for his part also, desirous to grow into credit & reputation by some new inuention of his own, brought vp first the allowing of cold water before said, to sick persons; & (as *M. Varro* doth report) took pleasure to be called the Cold-water Physitian. He had besides other pretty deuises to flatter & please his patients, one while causing them to haue hanging litters or beds like cradles, by the mouing & rocking whereof too and fro, he might either bring them asleep, or ease the pains of their sicknes; otherwhiles ordaining the vse of baines, a thing that he knew folk were most desirous of: besides many other fine conceits very plausible in hearing, and agreeable to mans nature. And to the end that no man might think this so great alteration and change in the practise of Physick, to haue bin a blind course and a matter of smal consequence, one thing aboue the rest that wooon himselfe a great fame, and gaue no lesse credit and authority to his profession, was this, that meeting vpon a time by chance with one he knew not, carried forth as a dead corse in a biere for to be burned, he caused the body to be carried home from the funerall fire, and restored the man to health again. Certes, this one thing, wee that are Romanes may be well ashamed of and take in great indignation, That such an old fellow as he, comming out of Greece (the vaine nation vnder the sun) & beginning as he did of nothing, should only (for to enrich himself) lead the whole world in a string, and on a sudden set down rules and orders for the health of mankind, notwithstanding many that came after him, repealed as it were, and annulled those lawes of his. And verily, many helps had *Asclepiades*, which much fauored his opinion and new Physick; namely, the manner of curing diseases in those daies, which was exceeding rude, troublesome, & painful; such adoe there was in lapping and couering the sicke with a deale of cloaths, and causing them to sweat by all meanes possible: such a worke they made sometime in chafing and frying their bodies against a good fire, but euery foot in bringing them abroad into the hot Sunne, which hardly could be found within a shade and close citie as Rome was. In lieu whereof, not onely there, but throughout all Italy (which now commanded the whole World, and might haue what it list) hee followed mens humours in approouing the artificiall baines and vaulted stoues and hot houses, which then were newly come vp and vied excessiuely in euery place by his approbation. Moreover, he found means to alter the painefull curing of some maladies, and namely of the Squinancie; in the healing whereof, other Physitians before him went to worke with a certain instrument which they thrust down into the throat. He condemned also (& wrought) that dog-physick which was in those daies so ordinary, that if one ailed neuer so little, by and by he must cast and vomit. He blamed also the vse of purgatiue potions, as contrary and offensive to the stomack, wherein he had great reason and truth on his side: for to speake truly, such drinks are by most Physitians forbidden, considering our chiefe care and drift is in all the course of our physick, to vse those means which be comfortable and wholsome for the stomack.

* Some thinke it was an inflammation resembling our Carbuncle or Anthrax.

* Riding on horsebacke, carrying in coach, litter, barge, &c.

¶ The foolish superstition of Art-Magicke, which here is derided. Of the tetter called Lichen: remedies proper for it, and the diseases of the throat.

ABoue all other things, the superstitious vanities of Magicians made much to the establishing of *Aesclepiades* his new Physicke; for they in the height of their vanity, attributed strange and incredible operations to some simples, that it was enough to discredit the vertues of them all. First, they vaunted much of *Aethyopus*, an hearbe which (by their saying) if it were but cast into any great riuer or poole, it would draw the same dry; and was of power (by touching onely) to open lockes, or vnbolt any dore whatsoever. Of *Achoemenis* also another herb, they made this boast. That beeing throwne against an armie of enemies ranged in battell array, it would driue the troups and squadrons into feare, disorder their ranks, and put them to flight. Semblably, they gaue out and said, That when the king of Persia dispatched his Embassadors to any forein states and Princes, he was wont to giue them an herb called *Latace*, which so long as they had about them (come where they would) they should want nothing, but have plenty of all that they desired: besides a number of such fooleries wherewith their bookes were peppered. But where, I beseech you, were these herbs when the *Cimbrians* and *Teutons* were defeated in a most cruell and terrible battell, so as they cried and yelled again? What became of these Magicians and their powerfull herbs, when *Lucullus* with a small army consisting of some few legions, ouerthrew and vanquished their owne kings? If herbs were so mighty, what is the reason (I pray you) that our *Romane* capitaines provided euermore about all things: how to be furnished with victuals for their camp, and to haue all the waies and passages open for their purueours? In the expedition of *Pharsalia*, how came it to passe that the souldiers were at the point to be famished for want of victuals, if *Caesar* by the happy hauing of one hearbe in his campe, might haue enjoined the abundance of all things? Had it not bin better think ye, for *Scipio Africanus* to haue caused the gates of Carthage to flie open with the help of one herbe, than to lie to many yerres as he did in leaguer before the city, & with his engins & ordinance to shake their walls, & batter their gates. Were there such vertue in *Ethiopus* aforesaid, why dowe not at this day dry vp the *Pontine* lakes, and recouer so much good ground vnto the territory about *Rome*? Moreover, if that composition which *Democritus* hath set downe and his bookes maketh prayse of to be so effectual, as to procure men to haue faire, veruious, and fortunat children, how happeneth it that the kings of Persia themselves could neuer attaine to that felicity? And verily wee might maruell well enough at the credulity of our Ancestors in doing so much vpon these inuentions (howsoeuer at the first they were deuised and brought in, to right good purpose) in case the mind and wit of man knew how to stay and keepe a meane in any thing els besides; or if I could not proue (as I suppose to doe in due place) that euen this new leech craft brought in by *Aesclepiades* which checketh those vanities, is growne to farther abuses and absurdities than are broched by the very Magicians themselves. But this hath beene alwaies and euer will bee, the nature of mans mind, To exceed in the end and go beyond all measure in euery thing which at the beginning arose vpon good respects and necessary occasions.

But to leaue this discourse: let vs proceed to the effects and properties remaining behind of those herbs which were described in the former booke; with a supplement also and addition of some others, as by occasion shall be offered and presented vnto vs. Howbeit, to begin first with the remedie of the said Tettars (so foule and vnseemly diseases) I mean to gather a heape of as many medicines as I know appropriat for that malady, notwithstanding I haue shewed already of that kind, not a few. Well then, in this case, *Plantaine* stamped is very commendable: so is *Cinquefoile* and the root of the white *Daffodill*, punned and applied with vineger. The young shoots or tender branches of the fig-tree boiled in vineger: likewise the root of the * *Marsh-Mallow* sodden with glew in a strong and sharpe vineger to the consumption of a fourth part. Moreover, it is singular good to rub tettars thoroughly with a pumish stone first, to the end that the root of *Sorrell* stamped and reduced into a liniment with vineger, might be applied afterwards therupon with better successe; as also the floure of * *Miseto* tempred & incorporat with quick-lime: the decoction likewise of *Tithymale* together with rosin, is much praised for this cure: but the herb *Liuierwort* excelleth all the rest, which therupon tooke the name *Lichen*: it

groweth

* *Hibiscus* some
ta. for the
Hollyhoke.

* *miseto*, some
read *hibiscus*.

A groweth vpon stony grounds, with broad leaues beneath about the root, hauing one stalke and the same small, at which there hang downe long leaues: and surely this is a proper herb also to wipe away all marks and cicatrices in the skin, if it be bruised and laid vpon them with hony. Another kind of * *Lichen* or *Liuierwort* there is, cleauing wholly fast vpon rocks and stones in manner of mosse, which also is singular for those tettars, being reduced into a liniment. This herb likewise stancheth the flux of bloud in green wounds, if the iuice be dropped into them: and in a liniment, it serueth well to be applied vnto apostumat places: the jaundise it healeth, in case the mouth and tongue be rubbed and annointed with it and hony together: but in this cure the Patients must haue in charge, To bathe in salt water, to anoint themselves with oile of almonds, and in any case to abstain from all salads and pothearbs of the garden. For to heale tettars, the root of *Thapsia* stamped with hony is much vsed.

B As for the Squintie, * *Argemonia* is a soueraigne remedy if it be drunk in wine: *Hyssop* also boiled in wine and so gargarized: likewise *Harstrang* with the renner of a Seale or Sea-calf, taken both of them in equall portion: moreover, Knot-grasse stamped with the pickle made of Cackrebs and oile, and so gargled, or els but held only vnder the tongue: Semblably, the iuice of *Cinquefoile*, being taken in drink to the quantity of three cyaths: this iuice besides, in a gargarisme, cureth all other infirmities of the throat. And to conclude with *Mullen*; if it be drunk in water, it hath a speciall vertue to cure the inflammation of the amygdals or almond kernels of the throat.

CHAP. V.

¶ Receipts for the scrophules or wens called the Kings euill: for the paines and griefes of the fingers: for the diseases of the breast, and namely for the Cough.

Plantaine is a soueraigne herb to cure the Kings euill: also *Celendine* applied with honey and hogs lard: so is *Cinquefoile*. The root of the great Clot-bur serueth for the same purpose, if it be incorporat with hogs grease, so that the place after it is annointed therewith, be couered with a leafe of the said Bur laid fast vpon it: in like manner *Artemisia* or *Mugwort*: also a *Mandrage* root applied with water, is good for that purpose. The broad leaved *Sideritis* or *Stone-sauge*, being digged round about with a spike of yron and taken vp with the left hand, and so applied vnto the place, cureth the kings euill; provided alwaies, that the Patients when they be healed, keep the same herbe still by them, for feare least it being replanted againe by these Herbarists (such is the malicious sorcerie of some of them as I haue already shewed) the malady retorne and be as bad as it was before: the like caueat I find giuen vnto them, who are cured of this disease either by *Mugwort* or *Plantaine*. The herb *Damasonium*, called likewise * *Alisma*, if it be gathered about the Summer solstead, applied vnto the foresaid wens with rain water, is singular good for them; for which purpose, the leaues are to be stamped, or the root bruised and incorporat with hogs grease, and so applied in a liniment; with charge, That the place be couered with a leafe of the same: in which manner prepared and vsed, it serueth to allay all pains in the nape of the neck, and to keep downe or dissipat the swelling in any part of the body. There is an herb growing commonly in meadows, called the *Daisie*, with a white floure, & partly inclining to a red, which if it be ioined with *Mugwort* in an ointment, is thought to make the medicine far more effectual for the kings euill. *Condurdum* is an herb of smal continuance, for about the Summer solstice it sheweth a red floure and soon sheddeth the same: which (as they say) if it be hanged about the neck, represseth and keepeth vnder the foresaid disease: the like doth *Vernaine* together with *Plantaine*, vsed and worne in the same manner.

Touching all the accidents happening to the fingers, and namely the excrescences & risings of the skin about the roots of the nailes, called in Greeke *Pterygia*, *Cinquefoile* is a singular good herb for them.

F Amongst all the infirmities of the breast, the cough is most troublesome and grievous, for which, the root of *Panaces* in sweet wine is a soueraigne remedie. The iuice of *Henbane* is excellent for them also: that reach vp bloud out of the breast: and the very smoke therof as it burneth, is as proper for them that cough. In like manner, *Scordotis* beeing dried and made into powder, afterwards mingled with cresses and rosin, and so reduced into a liquid confection or

Y 3

lohoch,

* Our com-
mon *Liu-
wort*.

* Which some
take to be wild
Poppy, called
Roads.

* *Alisma* in some
readings.

lohoch, cureth the cough. The said herb taken simply by it self alone, raiseth tough flegme out of the brest, and causeth it to break from the Patient with ease. The like effect hath Centaury the greater, yea though a man did bring vp blood: for which infirmity, the juice of Plantain also is thought to be singular. Betony taken in water to the weight of three oboli, is of great force against the spitting of blood, and raising vp of filthy matter out of the chest. The root of the great bur hath the like vertue, if it be eaten to the weight of one dram with 11 Pine-nuts. The juice of Harstrang, as also Galangale, is good for the pain in the brest, and therefore they go both of them into preseruatiues and antidots which serue for counterpoisons. The Carot likewise helpeth those that cough, like as the herb Scythica (which is the wild Caraway;) for beeing drunk to the weight of 3 cyaths in sweet wine cuit, it is generally good for all diseases of the brest, for the cough, and helpeth such as fetch vp filthy and rotten matter.

CHAP. VI.

¶ Of Mullen or Lungwort: of Calalia: of Folefoot called Tussilago or Bechium; and of Sauge: herbs all appropriate for the cough.

Mullen or Lungwort with the yellow golden floure, being in like maner taken to the same quantity, eases the foresaid infirmities. Certes this herb is of that efficacy in these cases, that if a drench thereof be giuen to horses, which not onely haue the cough, but also be broken winded, it will help them: the same effects I find attributed to Gentian. The root of Calalia foked in wine and chewed, is good not onely for the cough but also for the infirmities in the throat. Take 5 branches or slips of hyssop, and two sprigs of rue, with 3 figs, seeth these together, it is an excellent drink for to discharge the brest of flegme that stuffeth it. Folefoot, called in Greek Bechion, that is to say in Latin Tussilago, doth appease the violence of the cough. Two kinds there be of this herb: the wild, which wherefoeuer it is seene to grow, sheweth that there is water vnder it: a thing that they know well enough who seek for springs, for they take it to be an assured sign and direction to water: it beareth leaues like to luy, but somewhat bigger, either 5 or 7 in number, which vnderneath or toward the ground be somewhat whitish, but aboue in the vpper side, of a pale colour, without floure, stem, or seed, and the root is but small. Some would haue it and Chamæleuce both, to be one and the same herb called by diuers names: take this herb, leafe and root together, when they be dried, set all on fire and receiue the smoke by a pipe, as if you would suck or drinke it downe, it is (they say) a notable medicine to cure an old cough, but between euery pipe you must sip a pretty draught of sweet wine. The second Bechion some would haue to be called Saluia, an herb like vnto Mullen: stampe the same, and let the juice run through a streiner, which being made hot, drinke it for the cough and pain in the sides. This herb likewise is very effectuall against scorpions & sea-dragons. Also an inunction made therewith and oile together, is commended much for the sting of serpents. A bunch of hyssop foddren with three ounces of hony, is a fine medicine for the cough.

CHAP. VII.

¶ For the paine of the sides and breast: for those that cannot draw their wind but sitting vpright: for the paine of the liuer: the heart ach: for the lights: difficulty of vrine: the cough: the breast: vlcers: for the eyes: for the flux of the belly, occasioned by a feeble liuer: against immoderat vomits: for the yex, the pleurise, and all griefes of the side.

Lungwort or Mullen drunke in water with Rue, is very good for the pain of the sides and the brest: for which purpose also, they say, that poudre of Betony is as good, if it be taken in water wel warmed. The juice of Scordotis is holden to be a great corroboratiue of the stomack: so is Centaury also & Gentian, drunk in a draught of water. Plantain either eaten alone by it selfe, or with a gruell & broth of Lentils, or els with a frumenty pottage made with wheat, is comfortable to the stomack. Betony, although otherwise it lie heavy in the stomack; yet if one either chew the leaues, or drink them in some broth, it helpeth much the defects & infirmities thereof. In like case Aristolochia if it be taken in drinke. Also Agaricke chewed drie, so as betwixt whiles the patient sup a little of pure wine of the grape, hath like vertue: as for Nymphaea

Aphæa or Nemphar synnamed Heraclia, it strengtheneth the stomacke, applied outwardly in a liniment: euento doth the juice of Harstrang. For the hot distemper of the stomacke, it is good to lay vnto it the herbe Flea-wort or Cotyledon, otherwise called Vmbilicus veneris, stamped with fried Barly meale into a cataplasme: or els to take Iubarb, i. Sengreen, to the same effect. The herbe Molon hath a stem * chamfered or channelled along: soft leaues, & those small: a root foure fingers long, in the * end whereof it beareth an head like vnto Garlicke. Some call it Syroa. Taken in wine, it helpeth the stomack and difficulty of drawing breath: In which cases the greater Centaury is singular, if it be reduced into a lohoch or liquid electuary. Plantain also eaten any way, either in a green-sauce or fallad. This composition is reputed a soueraigne medicine. Take of Betony stamped the weight of one pound, of Articke hony as much, incorporate them together, and hereof drinke euery day the quantity of halfe an ounce in some conuenient liquor, or in water warm. Aristolochia or Agarick are soueraigne meanes to be vsed in these infirmities, if one drinke the weight of three oboli thereof, either in warme water or asses milke. The herb Cissanthemos is good to be drunk for those that be streight winded, and must sit vpright when they draw their breath. In the like case Hyssop is commended: as also for pursuenesse and shortnesse of wind. The juice of Harstrang is an ordinary medicine for the griefe of the liuer, the pains also of breasts and sides, in case the Patient be cleare of the ague. As for Agarick, it helpeth all such as spit blood, if the poudre thereof, to the weight of one Vistoriat, be giuen in five cyaths of honied wine. Of the same operation is Amomum. But particularly for the liuer, the herb Teuceria is thought to be soueraigne, if it be taken fresh & green to the weight of foure drams in one hemine of water and vinegar mixed together. One dram of Betony giuen in three cyaths of warm water, or in tw ain of cold, is thought to be a singular cordiall. The iuice of Cinquefoile helpeth all the imperfections of the liuer and lights, it cureth them that voyd or reach vp blood, and generally it serueth for al inward corruptions and distemperatures of the whole masse of blood. Both Pimpernels be wonderfull medicinable for the liuer. Fumiterre the herb wholoever do eat, shal purge choler by vrine. Galangale is helpfull likewise to the liuer, to the chest also, and the midriffe or precordial parts. The herb Caucon, named also * Ephedra, and by some Anabasis, groweth ordinarily in open tracts exposed to the wind: it wil clime vpon trees, and hang down from their boughs and branches. Leafe it hath none, but is garnished with a number of haire, which are no other but rushes indeed full of ioints and knots: the root is of a pale colour. Let this herb be beaten to poudre, and giuen in red wine that is greene and hard, it is good for the cough, for the shortnesse of wind, and the wrings of the belly: it may be taken also in some other supping, whereto it were conuenient to put wine. In like sort the infusion of one dram of Gentian which hath lien steeped the day before, may be very wel taken in three cyaths of wine for those purposes. Herb Benet or Auens hath a small root of a blackish colour, which hath a good sent: this herb not only cureth the pains of the brest and side, but also discusseth all crudities proceeding of vnperfect digestion, by reason of the pleasant sauour that it hath. As for Veruaine, it is medicinable vnto all the principall and noble parts within the body: good for the sides, the lungs, the liuer, and the breast: but most properly it respecteth the lungs; and namely, when the patient is in a phthisick or consumption, by the means of their vlcers. The root of Bearfoot, an herb which I said was but lately found out, is a present remedie for swine, sheep, goats, & all such cattel, in case they be diseased in the lights, if it be but drawn crosse through any of their eares. The same ought to bee drunke in water, and a piece thereof continually held vnder the tongue. As for any other part of this hearbe aboue ground, be it leafe, stalke, floure or seed, it is not yet certainly knowne, whether it be good or no for any purpose in Physicke. As for the kidneies, the hearbe Plantaine is good to be eaten; Betonie to be drunke; Agaricke also to be taken in drinke, like as for the cough. * Tripolium groweth vpon the rocks by the sea side, on which the sea-water beateth: so as a man cannot say, that it is either in the sea or the drie land: in leafe it resembleth woad, but that it is thicker: the stemme is a span or hand-breadth high, forked, and diuided at the point: the root white, odoriferous, grosse, and hot in taste: when it is foddren in a frumenty pottage of wheat, they giue it with good successe to those that be diseased in the liuer: this is thought of some to be all one with Polium, whereof I haue spoken in due place. Symphonina or Gromphena, an herbe hauing leaues, some red, others greene, growing to the stem in order, one red and another greene, is a soueraigne medicine for such as reach and void vp blood, if it be taken in oxycrat, or vinegar & water mingled together.

* Striato haply for strillo, slender, as Oribassius describeth it. * Discoideis describeth his Moly with such a head vpon the top of the stems.

* By these names he calleth also Horstale.

* A kind of Turbit.

* A Cough-wort.

together. Melandryum is an herb found growing in corn-fields & meadows, with a white floure, G and the same of a sweet and pleasant sent: the small stems thereof be commended for the liuer, in case they be stamped & giuen in old wine. Chalacetum commeth vp in vineyards: which if it be punned, serueth for a good cataplasme to be applied vnto the region of the liuer. The root of Betony taken to the weight of foure drams in wine cuit or honied wine, prouoketh vomit readily, as well as Ellebore. But for this purpose Hyssope is better, being beaten in powder, and giuen with honey: but order would be giuen before vnto the Patient, to eat Cresses or Irio. * Mo-
 * Or Polemo-
 * Celerach.
 * Bugle or
 Symphytum
 Leonidum.

lemonium also is of the like effect, if it be taken to the weight of one denier. Moreover, the herb Silybum hath a white juice like vnto milke: which after it is thickened to the substance of a gum, is vsually taken to the foresaid weight, with honey, for a vomitorie; and doth euacuat chole- H rum, is vsually taken to the foresaid weight, with honey, for a vomitorie; and doth euacuat chole- ricke humors especially. On the contrary side, wild Cumin and the powder of Betony, if they be drunk with water, do stay vomiting. For to digest the crudities of the stomach, and to rid away the loathing to meat, Carrot is thought to be very good: so is the powder of Betony, if it be taken in honied water; and Plantain also boiled in potage after the manner of Coleworts or such like potherbs. * Hemonium staierth the painful yex or hocquet. In like sort Aristolochia. Cly-
 * Hemonium staierth the painful yex or hocquet. In like sort Aristolochia. Cly-
 * Hemonium staierth the painful yex or hocquet. In like sort Aristolochia. Cly-
 * Hemonium staierth the painful yex or hocquet. In like sort Aristolochia. Cly-
 * Hemonium staierth the painful yex or hocquet. In like sort Aristolochia. Cly-

CHAP. VIII.

¶ Of all the infirmities and remedies of the belly, and those parts that either be adioining to it, or within contained. The means how to loosen and bind the belly.

Toucing the panch or belly, much ado there is with it: and although most men care for nothing els in this life, but to content and please the belly, yet of all other parts it putteth them to most trouble: for one while it is so costie, as that it will giue no passage to the meat; another while so slippery, as it will keep none of it: one time you shal haue it so peeuish, as that it can receiue no food; and another time so weake and feeble, that it is able to make no good concoction of it. And verily now adaies the world is growne to that passe, that the mouth and panch together are the chiefe meanes to worke our death. The wombe (I say) the wickedest vessel belonging to our bodies, is euermore vrgent, like an importunat creditor, demanding debt, and oftentimes in a day calleth vnto vs for victuals: for the bellies sake especially we are so couetous to gather good; for the belly we lay vp so many dainties and superfluities; to content the belly, we stick not to saile as far as the riuer Phasis; and to please the belly, we seek & found the bottome of the deep seas: and when all is done, no man euer thinketh how base and abject this part of the body is, considering that filthy ordure and excrement which passeth from it in the end. No maruell then if Physitians be much troubled about it, and be forced to deuise the greatest number of medicines for the help and cure thereof. And to begin with the staying and binding of it: a dram of Scordotis the herbe, stamped greene and taken in wine, doth the fear; so doth the decoction thereof, if it be drunke. Also Polemonia is a soueraine herb to be giuen in wine for the bloody flux. The root of Mullen or Lungwort, taken to the quantity of two fingers in water, worketh the same effect. The seed of Nymphæa Heraclia drunk in wine, is of the like operation: so is the vpper part of the double root of Glader or the Flagge, ministred to the weight of two drams in vineger. To this purpose also serueth Plantaine seed, done into powder and

A and put into a cup of wine: or the herb it selfe boiled with vineger, or els frumenty pottage taken with the juice thereof. Plantaine sodden with Lentils, or the powder of the dry herb strewed like spice into drinke, together with the powder of starched Poppie. The iuice also of Plantain or of Betony put into wine that hath bin heat with a red hot gad of Steele, either ministred by clystire or drunk, in the said case is very commendable. Moreover, the same Plantain or Betony is singular to be giuen in some green or austere wine, for those who are troubled with the lask proceeding from a weake stomach: and for that purpose Iberis may be applied vnto the region of their belly, as I haue before said.

In the disease Tineamus (which is an inordinat quarrell to the stool, and a straining vpon it, without doing any thing) the root of Nemphar or Nymphæa Heraclia, is singular good to bee drunk in wine: likewise Fleawort taken in water, & the decoction of * Galangale root: the juice of Houfleeke or Sengreene stoppeth the flux of the womb, staierth the bloody flux, and chaseth out of the body the round worms. The root of Comfrey and of the Carot, stoppeth likewise the bloody flux. The leaues of Houfleeke stamped and taken in wine, are singular good against the wringing torments of the belly. The powder of dried Alexa drunk, cureth the said wrings. Astragalus, Pease Earth-nut, an herb bearing long leaues, indented with many cuts or jags, and those which be about the root made bias: riseth vp with three or foure stems full of leaues: carieth a floure like to the Hyacinth or Crow-toes: the roots are bearded and full of strings, enfolded one within another, red of colour, and exceeding hard in substance: it groweth in rocks and stonie grounds exposed to the Sun, and yet charged or couered with snow the most part of the yeare, such as is the mountain Pheneus in Arcadia. This herb hath an astringent power: the root if it be drunk in wine, bindeth the belly, by which means it prouoketh urine, namely, by driving backe the serous and watery humors to the reines; like as most of those simples that be astringent that way, are diureticall. The same root stamped and taken in red wine, healeth the ex- C ulceration of the guts, & thereby staierth the bloody flux: but suely hard it is to bruise or stamp it: the same is singular for the apostumation of the gums, if they be fomented therewith: the right season to draw and gather those roots, is in the end of Autumne, when the herb hath lost the leaues, and then they ought to be dried in the shade. Both sorts of Ladanum growing among corne, be excellent for to knit the belly, if they be stamped and scarceed. The manner is to drink them in mead: likewise in wine * to repress choler. Now the herb whereof Ladanum is made is called Lada, & groweth in the Island Cypros, the liquor wherof sticketh commonly to goats beards. The excellent Ladanum commeth out of Arabia. There is a kind of it made now adaies in Syria and Africke, which they call Toxicon: for that in those countries the people vse to take their bow strings lapped about with wooll, & trail the same after them among those plants which beare Ladanum, and so the * tattie dew cleaueth therto. Of this Ladanum I haue written more at large in my treatise of ointments & redolent compositions: but this later kind is strongest in fauor & hardest in hande; and no maruell, for it gathereth much grosse and earthy substance, whereas indeed the best Ladanum is commended and chosen, when it is pure, clear, odoriferous, soft, green, and full of rosin. The nature thereof is to soften, to drie, to concoct, and to procure sleep: it retaineth the haire of the head being giuen to shed, and maintaineth the same blacke still, that it turne not hoary: wholsom it is for the eares, if it be instilled into them with Hydromel (that is to say, mead or honied water) or els with oile Rosat. It cleanseth the skin of dandruffe, and when it seemeth to pill: and withall, healeth the running scals of the head, if salt be mixed therewith. And being taken with Storax [Calamita] it cureth an inueterat cough but most proper it is for those who belch foure and strong. Moreover, Chondris, which also is called bastard Dictamnus, is a great binder of the belly: so is Hypocistis, named by some Orobat- F ion, much resembling a green or vnripe Pomegranat. This plant growes (as I haue said) vnder Cistus, whereupon it took the name. Both kinds of it (for twaine there be, to wit, the white and the red) being dried in the shade, stay a lask, if they be drunk in thick, austere, or green wine: the iuice only is vsed in Physick, the which is astringent and desiccative: and the red kind is of the twaine more appropriat for the staying or drying vp of rheumes, which if it be drunke to the weight of three oboli, is soueraine for them that reach and raise vp blood. Either drunke or clysterized with Amyl, it cureth the bloody flux. The like effects hath Veruaine giuen in water, yea, and in Aminean wine, if the Patient haue no ague hanging vpon him: with this proportion, that there be the quantity of five spoonefulls of the herb put to three cyaths of wine. More- ouer,

* Acoris which
 so crake
 for our Cala-
 nis Aramati-
 ca.

* Ad billi: some
 read nobili.

* Pinguedine
 roscida.

ouer, the herb Lauer, which loueth to grow in brooks and riuers, being either condite and preserved, or els foddren, allaieth the wrings of the belly. Water-specke or Pondweed, called in Greek Potamogeton, is singular good for the dysentery or bloody flux; for the flux also which proceedeth from a weak stomack. This herb beareth leaues like to Beets, but that they be lesse only and more harry, or furred with a downe. A little it beareth about the water, and hath a peculiar property, which is refrigeratiue and astringent: the leaues alone be medicinale, & those be good for the morimals in the legs: for cankerous and corroding vlcers, if they be applied in a cataplasme with hony or vinegar. *Castor* the Physitian describeth this herb * Potamogeton after another sort, namely with a small slender long leafe like vnto horse-haires, putting forth a long stem likewise, and the same smooth, growing also in waters. He vsed with the root of this herb to cure the Kings euill, and heale all hard tumors. This Potamogeton hath an aduersatiue nature to Crocodiles also, and therefore they who hunt after them, carry this herbe ordinarily about them. In like maner Achillea stoppeth a lask. And the same effects worketh Statice, an herb running vp commonly in feuen stems, in the top bearing buttons or heads resembling Rocks. * Ceratia beareth but one leafe, and hath a knotty and great root, which is good to be casten for to cure the lask, occasioned by the feeble stomacke, and the bloody flux, proceeding from the vicer of the guts. Lions-paw, commonly called * Leontopodion, by some Leuceoron, by others Dorypetron, and Thorybetron, hath a root which * bindeth the belly, and yet notwithstanding purgeth choler: if it be taken to the weight of two denarij Roman, in mead or honied water. This herbe groweth in light and lean champion grounds. It is said, that if the seed thereof be taken in drinke, it causeth strange visions and fantastickall dreames. Harefoot, which the Greeces name Lagopus, drunke in wine, bindeth the belly: but if the Patient be in an ague, it would be taken with water: being applied and bound vnto the share, it represseth the tumors and risings in those parts: an herbe this is growing vsually among corne. Many there be, who for the dangerous bloudie fluxe that is thought incurable, commend highly about all other herbes, Cinquefoile, in case the Patient drinke the roots thereof boiled in milke: and the like opinion they haue of Aristolochia, in case there be taken of the root to the weight of one vngoniat in three cyaths of wine. Now this would be noted by the way, that in these cases of astringency and binding, all the medicines before named which are to be taken warme, ought to be heat with a gad of Steele, quenched in the liquor. Thus much of those Simples that bind the belly.

Contrariwise, the juice of Centaury the lesse is a purgatiue, if a dram thereof bee taken in one hemine of water, together with some few cornes of salt and drops of vinegar; for it doth euacuate choler. The greater Centaury, commonly called Rhapontick, stilleth the wrings and griping paines of the belly. Betonie maketh the body loose and soluble, taken to the weight of foure drams in nine cyaths of Hydromell or Mead. In like manner Euphorbium is laxatiue, & so is Agaricke, if two drammes thereof be drunke in water with a little salt, or to the weight of three oboli in mead or honied water. Sowbread also, named by the Greeks Cyclaminos, taken inwardly with water, or put vp by suppositories, prouoketh to the seege: so doth a suppository made with the root of * Chamæcisus. Take a good bunch or handfull of Hyssope, seeth it in water with a little salt to the consumption of a third part: it serueth to euacuate fleagme, if it be in but applied as a liniment to the belly: or stamped and incorporat with oxymel and salt, in which maner vsed, it driueth worms out of the body. The root of Harstrang purgeth both flegmatick and cholerick humors also. Pimpernel taken in mead, is a good purgatiue: so is Epithymum, which you must take to be the * floure of a kind of Thyme that resembleth Sauery: here is the difference only, that this floure is of a grasse green colour, but that of the other Thyme is white. Some call this Epithymum, Hippopheon: a simple not very wholsome for the stomack, ne yet good to prouoke vomit; howbeit, singular to appease the wringing paines in the belly, and to carminate or dissolue ventosities. The same may be taken also by way of lochoch or liquid electuarie, confected with honey, and sometimes with the Ireos root, for the stuffing and other imperfections of the breast. Epithymum looseneth the belly, if it be taken from foure drammes to six, with honey, a little salt and vinegar. Some Herbarists describe Epithymum otherwise, namely, that it groweth without any root, and that it resembleth a little smal string or thread like vnto haire, of a red colour: which if it be dried in the shade and drunke in water to the weight and measure of halfe an acetable, purge th downward fleagme and choler both.

Nem-

A Nempfar taken in some hard astringent or wine, * gently purgeth the belly. Also, Pycnon-comon is laxatiue: an herb this is like vnto Rocket, but that the leaues be thicker in substance, and * grow more thin: it hath a round root, and the same yellowish, and senting much of the earth: the stem is foure cornered, of a mean height, small and slender, and the floure much like to that of Basil. Found it is ordinarily in stony grounds. The root of this hearb drunke in mead, to the weight of 2 deniers, doth euacuate downward by the belly, both cholericke and also flegmatick humors. The seed causeth troublefome and vnquiet dreames, if one drinke a dram thereof in wine. Fumiterre also * consumeth and dispatcheth the kings-euill. Polypodium (which we call in Latine Filicula) because it is like vnto Fearn, purgeth choler. The root, which is only medicinale and in vse, is full of hairs, of a greenish colour within, as big commonly as a mans little finger: full of hollow concauities it is, representing those holes that the fishes called Polyphi haue about their feet or clees: sweetish it is in tast, and groweth either vpon rocks, or * else at the foot of old trees. After that this root hath bin wel foked in water, they vse to presse the iuice forth of it, or the same may be shred & minced smal, strewed among porhearts either of Beers or Mallows; yea, and put into the pot with the mead: or els tempered in some salt sauce, or foddren in broth: a fine medicine and a safe, gently loosing the belly, though the patient were in an ague: it doth euacuate choler and flegme both: but somewhat offensive it is to the stomack. The powder of it dried, conueighed vp into the nostrils, consumeth the ill-fauoured sore within, called Polypus or Noli-me-tangere. It * floureth, but seedeth not. Moreover, Scammonie also ouerturns and hurterh the stomack, vnlesse two drams of Aloe be put vnto as many oboli of it: for then it purgeth choler, and sendeth it down by the belly. Now this Scammonie is the iuice of a certain herb (called likewise Scammonia) which brancheth and tufteth immediatly from the root: the leaues be fat, white, and made triangle wise: the root thick, moist, and in handling will make ones stomack to rise, and be ready to heaue. It loueth to grow in battle grounds, and those of a white leere. About the rising of the great Dog-star they vse to make an hollow trough in the root as it groweth; to the end, that all the moisture thereof may fall and gather into it: which liquor being dried in the Sun, is wrought and made into bals or trochisks. The root it selfe also is commonly dried or at leastwise the rind thereof. In regard of the country where it groweth, that is commended most which cometh from Colophon, Mysia, and Priene: but if you respect the form, and look of it, chuse that which is neat and clean, resembling as neare as possibly may be, strong Oxe glue, spongeous or fistulous, full of holes or passing small pipes. If you go by other qualities, take that which will soon dissolue or melt: which also hath a strong and stinking smel, clammy and gummy, turning into a whitish liquor like milk, if you taste it at the tongues end, exceeding light in the hand, and when it is resolued, growing to a whitish colour. And yet this property you shall see in that Scammonie which is sophisticate: and that ywis may soone be done, for do but take the meale or floure of Eruille and the iuice of the sea Tithymal (& such is that commonly which cometh from Iudæa) it wil counterfeit the right Scammony: but such stufte as this offendeth the throat, and is ready to choke or strangle as many as vse it. Howbeit this may be soon found by the very tast only: for the Tithymal setteth the tongue in a heat as if it were a bulb root: and is not good to purge, whether a man take it fasting or full. As for the true and sincere Scammony, they were wont to exhibit it for a purgation euen simply by it self alone in a draught of mead with some salt, and the dose was four oboli. But it was found to do the deed best, and most effectually taken with Aloe: so that the patient, when it began once to worke, took a pretty draught of sweet honied wine. Furthermore, the root if it be boiled in vinegar to the consistence of hony, maketh a singular liniment for to annoint the leptosie; yea, and in case of head-ach it is found good to annoint the head with it & oile together. As for the Tithymal afore said, our countrymen here in Italy, some call it Laetaria, as one would say, the Milke herb; other Laetua caprina, i. Goats Lettuce. It is commonly said, that with the milke or juice of these Tithymals, a man may write vpon the skinn of the body: for draw any letters therewith and strew ashes or dust thereupon, when they bedrie, they will appeare very legible.

F And this is a trick practised by those that make court vnto other mens wiues, their mistresses, deliuering their minds secretly vnto them by this means, which they dare not set down in paper or misse letters. Many kinds there be of these * Tithymals. The first is known by the addition of Characias, which also is called the male Tithymal: the * branches be of a finger thickness, red, * riuelled, 5 or 6 in number, running vp to the height of a cubit: and leaued they be immedi-

* *Citrus contrarium* verli (st) for it is a binder.

* I see not how this should stand here.

* Yea & in the head of old daddie Oke.

* I beareth neither flour nor seed.

* or Spurge. * *Ramis*, rather exuberant, i. the stems, out of *Discolor*. * *Rugosus*, Discolor, i. full of fap.

* *Myriophyllum aquaticum*, *Don-don*.

* *Dodon*, *Ophio-glossa* or *Ad-ders* tongue. * Our ladies Mantle. * *Dactylis* *mauicell* how this may stand, and yet we see it ordina-ly the cure of dysenteries and out-rages of Diarrheas, to purge choler with Rubrube, Myrabolane, &c. and with them alio to bind.

* Which some take for ground Iuice.

* Here Pliny is deceiued, for it is a kind of lace winding about Thyme, as Doder about Flax.

gether, the weight of one denarius at once in white wine, is singular in that case: the pouder of Betony taken in drink with hony and vineger of Squilla, is commended for that purpose: as also the root of Lonchitis drunk in water; and Teucrium applied as a liniment.

Scordum incorporat with wax, and Agarick with the pouder or floure of Fenigreek, help the infirmities of the bladder, and namely, the intollerable pains of the stone and grauell, as I haue before said. Polemonia drunk in wine; and in like manner Agaricke, is good for that purpose: the root or leaues of Plantaine taken in sweet wine cuit; also Betonie, prepared in that manner as it was appointed for the disease of the liuer, be remedies for the infirmities of that part. Betonie also giuen in drink and applied in a liniment, healeth a rupture; and the same is most effectuall in curing the strangury: some prescribe and giue counsell to drink Betony, Veruaine, Yarrow, or Millefoile, of each a like portion in water, as an excellent remedy for the stone and grauel. And well knowne it is, that for to ease the strangury and remove the cause thereof, Diſſamnus is an approued medicine: so is the decoction of Cinquefoile, if it be boiled in wine to the consumption of a third part, found by experience to be an vndoubted remedy in that infirmity: the same also is singular good to be applied in that rupture where the guts bealne downe. The vpper root of Glader or Flagg, causeth young infants to make water, if it be laid to the bottom of the belly: the same giuen inwardly with water, cureth those that are burst and haue their guts slipped downe; and helpeth the infirmities of the bladder in an outward liniment. The iuice of Harſtrang healeth little children who are bursten; and of Fleawort there is made a good ointment to annoint their Nauell, when it beareth out ouermuch. Both the Pimpernels do prouoke vrine: so doth the decoction of Acorus root: the very root it selfe also beaten into pouder, and taken in drink, worketh the like effect; and besides, healeth all the accidents of the bladder. Cotedon or Vmbelicus Veneris, both herb and root, breake the stone, and expelleth it by grauell; being otherwise singular good for all inflammations of the genitall parts or members of generation, if the stalks and seed be taken with Myrrhe, of each a like quantity: Vvalwort stamped together with the tender leaues thereof, and so drunk in wine, driueth out the stone: the same applied outwardly, cureth the accidents befalling to the cods. Groundswell, with the pouder of Frankincense and sweet wine reduced into an ointment, cureth the inflammation of the sayd cods. The root of Camfrey brought into a liniment, staieth the rupture whereby the guts come downe; and white Hypocistis, representeth the cancerous sores in those parts. Semblably Mugwort is singular to be giuen in sweet wine, for the stone and strangury. The root of Nenuphar or Nympha Heraclia taken in wine, assuageth the paine and grieve of the bladder: of the same power is * Sampier, so highly commended by Hippocrates: now is this one of the wild woorts which are vsually eaten in salads: and certes, this is that very herbe which the good country wife Hecale forgot not to set vpon her boord in a feast that she * made (as we may read in Callimachus the Poet.) And what is it but a kind of garden Batis? It groweth vp with one stem halfe a foot high, or a span at most: the seed is exceeding hot, round, and odoriferous like vnto Rosemary: if it be dried, it bursteth, and hath within a white kernell, which some call Cachrys. The leaues be fatty, and of a grayish white in manner of the oliue leafe, but that they be thicker, and saltish in tast: roots it hath three or foure, of a finger thickness: it groweth vpon the sea coast among rocks and cliffs. This herbe may be eaten, raw or boiled, it skilleth not how, with Beets, Coles, and other such woorts; and in tast likewise it is aromaticall and pleasant: it is vsually preserved and kept condite in a kinde of pickle: and the principall vse that it hath, is to cure the strangury, if either leafe, stalk, or root, be drunk in wine: also, being thus taken, it maketh folke look with a more louely, & cheereful colour: but if one be too bold with it, & vse it not with moderation, it breedeth ventosities. The decoction of Sampier maketh the body soluble, and is diureticall, for it mightly draweth water from the kidnies. In like manner, the pouder of dried Althæa or Marsh-Mallow, drunk in wine, cureth the strangury, and easeth them that pisse dropmeale, which it wil do more effectually, if the Carot be ioined withall: the same is wholefome for the spleen; and a counterpoison against serpents, if it be taken in drink. If the pouder thereof be strewed and mingled among the barley which is giuen in Prouander vnto cart-horses and such like, it helpeth them when they run at nose with the glanders, and stale drop by drop. Touching the herb Anthyllion, it is as like as may be to Lentils, which if it be drunk in wine, cureth all the infirmities of the bladder; and namely, when there issueth forth bloud with vrin: there is another hearbe comming neare to it in name; to wit, Anthyllis, like vnto Iva Muscata, or Chamæpitys,

*To wit, when they be hard or swollen.

*Or Cressmarina.

*To pricke Thelcus.

A mæpitys, carrying purple flours, senting strong, and hath a root like to Cichory, which is good in these cases. But it seemeth that * Brooklime, called otherwise Cepæa (an herbe resembling Purcellane, but that the root is blacker, and good for nothing in Physick, growing vpon the sandy shore, and hauing a bitter taste) is better for the said infirmities than the former named Anthyllis; for if it be taken in wine with the root of Sperage, it is excellent for the diseases of the bladder: of the same operation is * Hypericon, which some call Chamæpitys, others Corion. This herb * shooteth forth many branches, which be small and slender, of a cubit in length, and red withall: in leafe it resembleth rue; the smel is quick, hot, and piercing; the seed which it beareth within certain cods, is black, and the same ripeneth together with barley. The nature of the seed is astringent: it doth increasse and thicken humors, and stoppeth a lask: vrin it prouoketh; and being drunk in wine, scoureth away the stone and grauell in the bladder. A second Hypericon there is, which some call Coris, in leafe it resembleth * Tamarix, vnder which it gladly groweth, but that the leaues be more fat, and not so red: it groweth not aboue a * span high: odoriferous to smell vnto, and of a mild sweet tast, and yet * sharp withall. The seed is hot, and therefore causeth ventosities, and * inflation in ruptures: howbeit, vnto the stomack it is not hurtful; and singular good for the strangury, in case the bladder be not exulcerat: drunk in wine, it cureth the pleurisie. Moreouer, for the bladder and the diseases thereof, Maiden-haire made into pouder together with Cumin, and giuen in white wine, is a soueraine remedy; also Veruaine, fodder leaues and all, vntill the third part of the liquor be consumed: or the very root only thereof taken in honied wine hot, expelleth the stones and grauel in the bladder. In like maner the herb Perpressa, which groweth at Aretium and in Sclauonia, being boiled in water from 3 hemines to one, and so taken inwardly as a drink, is an appropriate medicine for the bladder. Clauer or three leaved grassie taken in wine; Camomile likewise * drunk, is good for the same. Moreouer, Anthemum expelleth the stone; an herb this is, which putteth forth immediately from the root five small leaues, and two long stems, with a red rose colour floure: the roots stamped alone, are as effectuall in this case as green * Lauer. As for Silaus, it groweth along those riuers which run continually and be neuer dry, especially such as glide vpon sand & grauell: it riseth to the height of a cubit, and resembleth garden Parsley: they vse to seeth it after the maner of * Soure-docke, and so prepared, it doth much good to the bladder, which, if it be excoriat and scabbed, the root of Panaces will heale it; for otherwise it is hurtful to that part. The herb called * Malum Erraticum [i. as one would say, the wandring poison, or apple] it expelleth the stone, if one pound of the root be thoroughly sodden in a congius or gallon of wine, vnto the consumption of the half, so that the patient take thereof for three daies together one hemine at a time; and that which remaineth of the decoction, in wine, with Lauer & sea-nettles. Also Carots and Plantaine seed taken in wine, driueth down stone and grauell. The nettle called Fulviana (an herb well knowne to them especially that handle it, and which took that name of him who first found out the vertue thereof) if it be stamped and drunk in wine, prouoketh vrine.

Scordum is singular for the swelling of the generoits or cods. Henbane is good for the diseases of the members seruing to generation. The iuice of Peucedanum [i. Harſtrang] incorporate with hony, like as the seed also taken inwardly, helpeth those who are pained with the strangurie; likewise Agaricke, if three oboli thereof be drunk in one cyath of old wine: the root of Trifoile or Clauer giuen to the poise of two drams in sweet wine: and one dram of Daucum, id est, Carot [either the herb, root, or seed, haue the like effect.

Such as be troubled with the Sciatica or gout in the huckle-bone, finde remedy by a plaster or cataplasme, made with the seed and leaues both, of Madder; also with a drink of Panaces: likewise if the place be well rubbed with Polemonia, and bathed with the decoction of the leaues of Aristolochia, it finds much ease thereby. The broad sinew or cord at the end of the muscles which is called in Greek Platys, likewise the shoulders if they be pained, feele sensible alleviation, by Agaricke, if the weight of three oboli be drunk in one cyath of old wine. Cinquefoile both taken in drinke, and also applied as a plaster, allaieth the paine of the Sciatica: so doth the herb Scammony boiled with barley meale. The seed of both the Hypericons drunke in wine, is proper for that malady.

The accidents of the seat or fundament, especially when that part is fretted or galled, a salue of Plantaine healeth most speedily.

The swellings or blind piles appearing like bigs or knuckles within the fundament, are cured

* Becabungæ.

* S. Iohnswort
* Succulato
frutice.

* Tamaricis:
but Dioſcorid.
Erica. i. H. aeth.
* Palma non al-
tius, ex Dioſc.
Acutum.
* Inflationem
facit: aliter
ad inflationem
facit.

* Potum.

* Water cress.

* Oulus acidum,
or rather, Oulus
atrum. i. Ali-
sanderis.

* Some take it
for Aristolochia
the round,
(which in the
8 chap. of the
25 booke hee
named venen-
terre) Others
for wildings
or crabs.

* Glader or
Flage.
* Fleawort.

* Angallidi,
Discoer. faith.
Gallio, Chese-
runcell.
* Mollis. o
vanderh Do-
natus.
Some take all
the fector Ta-
zis.

Vervaine stamped and incorporat with hogs greafe, is good for the gout: so is the root of Sow-G bread, the decoction wherof healeth kided heels, if they be bathed therein: the root of * Xiphion cooleth the hot gout; the seed of * Pysyllium doth the same: Hemlock also, incorporat with Licharge or hogs greafe: but about all other, Housleek or Sengreen is right souveraine to be applied at the first assault or fit of the red gout (.) when it is occasioned by a flux of hot humors: and whether it be hot or cold gout, Groundswell tempered into a liniment with swines greafe, and so applied, is a very fit and convenient medicine: as also Plantain leaues stamped, with a little salt mixed among; and Argemonia punned in a mortar & applied with hony: moreover, Vervaine reduced into an vnguent, is singular in that case; yea and if the goutie feet be well foked in the decoction therof, much ease wil insue thereupon: also Lappago, an herb resembling * Pimpernell, but that it is fuller of branches, and tufted more with leaues, which also be rough, rugged, and wrinkled, yeelding a juice in tast more harsh, and in smell strong and vnpleasant: as for that of this kind which is * soft, they call Mollugo: like vnto which (but for the leaues that be more rough in handling) is Asperugo, whereupon it took the name. Now for the gout, let the Patient take every day 11 deniers weight of the juice pressed forth of the former Lappago in two cyaths of wine: but for this disease the most excellent remedy and that which rids it quite, is the sea-weed, which in Greeke they call Phycos Thalassion, and in Latine Fucus Marinus; an herb like vnto Lettuce, & commonly Murets & other shel-fishes lye bedded vpon these weeds, which being applied before they are dried, do cure not the gout of the feet onely, but also any disease of all other joints. Now of this Sea-grasse so named, there be found three kinds: the first is broad and large; the second longer, and somewhat red; the third hath curled and frizled leaues, which in Candy they do vse in dying of their clothes; but all are of one and the same operation in Physick. *Nicander* was wont to giue them in wine, as a counterpoison against the venome of serpents. Moreover, the seed of that herb which I named Pysyllium, is singular good for the gout, if the same be well steeped in water; so that in euery hemine of the seed there be mingled the quantity of two spoonfulls of Colophonian rosin, and one of frankincense. Finally, the leaues of Mandragoras be highly commended in this case, if they be stamped and incorporat with fried Barly groats into a cataplasme.

CHAP. XI.

¶ General medicines and receipts for all the infirmities incident to the Feet, the Ankles, joints, and Sinews: Item, the remedies for those diseases which possesse and trouble the whole body. Of the herbe Mirthrida. Medicines for those that cannot sleep: and for the Palsie. Of cold fevers: and the ague that is incident to horses: of the Phrensie. Of the herbe Walwort and Housleek. Last of all of the Shingles or S. Anthonies fire.

* Pota, other-
wise Posita,
i. applied.

* Rose of Ie-
richo.

IF the feet be swoln about the ankles, the mud that is found in the bottom of waters, wrought and conecorporat together with oile, is of wonderful operation to allay the same. For the pain in the joints, or griefe of sinews, the juice drawn out of Centaury is passing good: in like manner, the herb Centauris. As for Betony, it is comfortable vnto the nerues, which run and spread behind ouer the shoulder-blades, the shoulders, the back-bone, the loins and hanches, if it be taken in * drink, after the manner as it was ordained for the liuer. Cinquefoile, is souverain for the pain of the joints, if it be applied outwardly: likewise the leaues of Mandragoras made into a pulstesse with parched barley meale, or the root it selfe newly drawn out of the ground & stamped with the wild Cucumber, or els boiled in water, for the chaps that appeare in the feet or vpon the elbows, the root of Polypodie is singular good; for the griefe of the joints, the juice of Henbane reduced into an ointment with swines greafe, is a proper remedy: likewise the juice of the herb * Amomum, together with the decoction: also Cotton-weed or Cudwort, boiled in water: or fresh gathered mossie foked in water and bound to the griued place, and there kept fast without remouing, vntill it be drie: as also the root of the Bur called Lappa Boaria, drunke in wine. Sow-bread sodden in water, cureth the eluifh & angry kibes beginning to rise vpon the heels, and all other chilblanes and bloody fols occasioned by cold. Semblably, Vmbilicus Veneris applied with hogs greafe, healeth the foresaid kided heels: so do Crowfoot leaues; and the juice of Epithymum. Ladanium made into a salve with Castoreum, and so applied, fetcheth out the core of agnells or corns by the roots: the like effect hath Vervaine, if it be laied too with wine.

A wine. And now that I haue run through those maladies which are offensive to euery particular member, I purpose to write in the next place of such as occupy the whole body; and of the remedies common to them all, which I find to be these ensuing.

And first there presenteth it selfe vnto me the noble herb * Dodecatheos, wherof I haue spoken before as a souveraine remedy for those vniuersal diseases, if it be taken in drink. Next to it are the roots of all kinds of the Panaces, which are thought to be excellent, and principally for long and languishing maladies: like as their seed for the obstructions of the bowels and the inward accidents of the guts: for the pains generally of the whole body, the iuice of Scordium is right commendable, and so is that of Betony: which herb taken in drink, hath a peculiar property to mend the wan and leaden hew of body, reducing it to a more fresh and pleasant color.

The herb * Geranion, which some call Myrrhis, others Merthrays, is like vnto Hemlocke, save that it hath smaller leaues, and a shorter stem, which also is round, of a sweet sent to the nose, and good fauor in the mouth, for so we Latines doe describe it: but according to the description of the Greeks, the leaues rather resemble the Mallow, but that they are whiter somewhat, the stalks slender and hairy: * it brancheth out big at the distance of euery two handbreadths, howbeit, full of leaues between: and among the leaues are to be seen in the top of the branches and sprigs little buttons or heads like vnto Crane-bills. Another kind there is of them leaved after the manner of passe-floures, or wind-floures, but that they be intailed or indented deeper: and a round root it hath fashioned like an apple, which is sweet in tast, and is an excellent restorative for all such as haue bin weakened and decayed in nature by long sickness: and this I take to be the true

Geranion, which is a rare herb. A dram weight thereof drunk twice a day [first and last] in three cyaths of wine, is a singular medicine for the phthisicke. And in that order it is good for ventrosities: and hath the same effect though it be taken raw. The iuice of the root is souveraine for the infirmities of the ears. The seed giuen in drink to the quantitie of 4 drams with pepper and Myrrh, cureth the cramp which pulleth the head and body all backward. The iuice of Plantain if it be drunk, or the herb it selfe boiled and so eaten, is whoisome for those that be in a Phthisick. Plantaineaten with salt and oile in a morning, so soon as a man is awakened, is a great cooler. The same is an ordinary medicine for those that mislike, and whose meat is not seene vpon them, if they take it each other day. Of Betony and hony there is a liquid confection or lochoch made, which being licked and let down leisurely, to the quantity at a time of a good big beane,

helpeth those that are in a Phthisick or consumption of the lungs. Also Agarick, if it be drunk to the weight of 2 oboli in wine cuit, is good in the like case: so is Daucum also taken in wine with Rhapontick. For the hungry worms Phagedaene (a name in this place signifying an inordinat * disposition, to be alwaies eating and neuer satisfied, although otherwise I vse it for cankerous and corroding vlcers) the Tithymalls or Spurges taken inwardly with Sesama seed, is counted souveraine. Among the maladies which affect & infest the whole body, want of sleep, or an indisposition thereto, is by most Physicians counted one: for which defect, they shew vs these herbs following; to wit, Panaces, water Betony, and Aristolochia, which they prescribe to the patient both for to smel too, and also to annoint his head al ouer withal. Likewise Housleek called Aeizoon & also Sedum, giuing direction to wrap it within a blacke cloth, and so to lay it

under the pillow or bouldster of the sick person, but in no wise to let him or her know so much. Likewise Oenothera, otherwise named Onuris, is effectual for this purpose: is an herb good also in wine to make the heart merry. It groweth with leaues resembling those of the Almond tree, and beareth floures like vnto Roses. Store of branches it putteth forth, and hath a long roor, which being dried, senteth much of wine. Of such vertue is this herb, that if it be giuen in drink to the wildest beast that is, it will tame the same and make it gentle. As for the crudities or raw humors lying in the stomack, which cause loathing and abhorring of meat, Betony is singular to digest them: the same drunk immediatly after supper, helps concoction, namely, if one dram weight of the herb be taken in 3 cyaths of oxymel: and so it resolueth and scattereth the fumes arising vp into the head, occasioned by strong wine. Of the same operation is Agaricke, drunke at the end of a meale in hot water. The foresaid Betony hath the name of a speciall remedie for the palsie: so is Iberis also reputed, as I haue shewed once before; the same herbe reuiueth the lims which are benumbed and in manner dead. And verily, Argemone is of that vertue,

that it diffuseth all those cold humors which mortifie any member, and put them in danger to be cut off or launced. The root of that Panaces which I named Heraclia, drunke with the ren-

So called, for that it representeth the maiesty of the twelve principall gods and goddesses, called Maiorum gentis, or Con-sentes, whom the Painims imagined to sit in counsell together with Jupiter their President: and these hath En-nina comprised in this Distichon: Iano, Ve-nus, Minerva, Ceres, Diana, Venus, Mars, Mercurius, Iouis, Neptunus, Vulcanus, Apollo.

The Carot.
* Carotus.

uers places: it beareth in the head certain berries as it were in bunches and clusters, odoriferous, and as they sent somewhat strong and hot, so the smell is not vnpleasant: take this herbe, chew it with your teeth, and then lay it to any wounds made by the edge of the sword or such like weapon, and so let it lie and remoue it not vntill the fifth day, you shal see it to heale excellent wel. Camfrey applied vnto a green wound, skinneth it most speedily: so doth Sideritis; as for this herbe, it should be applied with honey. The seed and leaues of Mullen, sodden in wine, & stamped to the form of a cataplasme, draweth forth all thorns, spils, and arrow heads, which sticke within the body. The like effect work the leaues of Mandragoras, incorporat with parched barley meale; and Sowbread roots stamped and mixed with honey. The leaues of Germander punned with oile, are excellent to be applied vnto those vlcers which doe corrode the flesh vnder them and eat forward; like as the Reiks or sea-weeds. Betonie is a soueraigne herbe for cancerous vlcers: also for the blacke sploches that haue continued a long time vpon the skin, if there be salt put thereto. Argemonia tempered with vineger, taketh away warts: so doth the root of Crowfoot, which also is singular good to fetch off with ease, the ragged and fretted nailes that be offensiue. The leaues of Mercurie, the male and female both, or the iuice thereof brought into a liniment, haue the like operation. Al the sorts of the Tithymals take away any warts whatsoever: so do they rid the troublesome risings and impostumations like whitflawes about the naile roots, and all flecks, spots, wheelks, and specks whatsoever. Ladanum reduceth any scars to look faire and fresh coloured againe.

CHAP. XV.

Many experiments and approued receipts for the pronoking or staying of womens monethly tearmes: for curing the diseases of their matrice: for sending out the birth, or retaining the same within the bodie the full time. Also sundry deuises for to amend the faults that blemish the skin of the face: to colour the haire of the head, or to fetch it off. Last of all, diuers medicines for the farcines or scab in foure-footed beasts.

It is said, That if a traueiler or wayfaring man weare fast tied about him, Mugwort or Sauge, he shall neuer be weary nor thinke his journey long. But to come now vnto the infirmities of women: the black seed of the herb Pæony, is generally good for all their *maladies, if it be taken in mead: the root also is of the same operation, and besides prouoketh the ordinary course of their months. The seed of Panaces drunk with wormwood, moues their fleurs, & prouoketh them to sweate: the like effect hath Scordotis either in drink or liniment. A dram of Betony giuen to women in 3 cyaths of wine, helps all the maladies incident to their natural parts, *but especially those that insue vpon their deliuey of childbirth. Achillæa being applied accordingly, staieth the exceffiue flux of their monthly termes: for which purpose also, it is good for them to sit in a bath made with the decoction of the said herb: & in this case, to their breasts or paps. *there would be laid a plaster of Henbane seed tempered with wine: the root also applied in manner of a cataplasme to their secret parts, is counted soueraigne for that infirmity: like as Celendine the greater laid vnto the foresaid breasts. If the after-birth, when the childe is borne, be loth to come away, or if the infant be dead within the mothers womb, the roots of Panaces applied accordingly to the priuy parts, fetch forth both the one and the other. The very herb it self Panaces drunk in wine, or outwardly vsed to the region of the matrice, *clenseth the same. Sauge de bois taken with wine, expelleth the after-birth; and by a suffumigation, munieth the matrice. The iuice of Centaury the lesse, bringeth women to their desired sicknesse, if they drink it, or foment the parts beneath, therewith. Likewise the root of the bigger Centaury vsed after the same maner, appeaseth the pains of the mother. If the same be scraped smooth, & put vpon the right place as a pessary, it draweth away the dead child within her body: for the griefe and anguish which women feelee in their womb, there is no better thing than to apply the iuice of Plantaine in a Locke of wooll: and in danger of suffocation by rising of the mother, to giue it in drinke. But Dictamnus is soueraigne and hath no peere: it prouoketh monthly fleurs: it sendeth out the dead childe, yea though it lay ouerthwart and stuck crosse in the birth: for which purpose, the woman must drink to the weight of one obolus, in water: and verily of such power is this herb in such cases, that so long as women go with child, it must not come within the chamber where they are, for feare it put them to trauell before their time. And not onely in drinke

* To their matrice, as namely, the rising of the mother, &c.

* To wit, the stay of the after-birth, after throwes, suppression of their purgation, or immoderate shits, &c. * Swelled and hard.

* Purgat, some read better (in mine opin on) corrigat, i. reducere it into the right place being infected and peruerbed.

A drink is it thus effectual, but also in a liniment; yea and the very perfume and smoke thereof receiued in the body, will do the deed. Next to it, there is not a more soueraigne herb than the bastard Dictamnus, called Pseudodictamnus: but it must be boiled to the weight of one denier, with pure wine and strong of the grape, and then taken in drinke, it prouoketh womens desired sicknesse. And yet Aristolochia is many waies good for the infirmities of women: for if there be myrrh and pepper put thereto, and then either taken in drink or put in a pessarie, it draws downe their fleurs, bringeth forth the after-birth, and fetcheth away the dead infant: it keepeth vp and staieth the matrice ready to fall, and slip out of the body, either in fomentation, perfume, or pessary, especially the *small kind thereof. But in case a woman be in danger of suffocation by the ascent of the mother, or otherwise diseased for want of her monethly purgation, let her drinke Agaricke to the weight of three oboli in one cyath of old wine: make a pessarie of Veruain incorporated with fresh hogs lard, and applie Calues-Inout, otherwise called Snap-dragon with oile rosat and hony, she shall haue ease, and be cured speedily. Semblably the root of Nenuphar, especially that which groweth in *Thessalie, applied vnto the naturall parts of women, easeth the paines thereof: and if it be drunke in grosse red wine, it staieth their shits or immoderate flux of the moneths. Contrariwise, the Sow-bread root, both taken in drinke and also outwardly vsed, prouoketh the same, if they do stay vpon a woman. Also a decoction thereof, if a woman do sit therein, helpeth the accidents of the bladder. Cissanthemos taken in drinke, sendeth out the after-birth, and healeth the maladies of the matrice. The vpper root of the Flag or Glader, drunke in vineger to the weight of one dramme, bringeth women to the ordinary course of their fleures. The fume of Hartstrang burnt, fetcheth women againe when they lie as it were strangled and dead in a fit of the mother. Flea-wort taken to the weight of a dram in three cyaths of honied water, prouoketh their monthly termes, but especially it maketh them soluble if they were costie. The seed of Mandragoras cleaseth the matrice, if a woman take it in her drinke: the iuice whereof applied to the naturall parts, prouoketh her moneths and fetcheth away the dead child within her body. Againe, the seed taken with wine and brimstone, staieth the immoderate flux of the monethly termes. Crowfoot either drunk or eaten with meat, knitteth the belly and stoppeth a lask: an herb otherwise (as I haue said) of a causticke and burning nature, if it be vsed raw, but certainly, beeing boyled with salt, oyle, and cumine, a commendable meat. Yellow Carrots taken in drinke, doe exclude the after birth, and prouoke womens fleurs with exceeding great facilitie. A perfume of Ladanum, setteth streight the matrice when it is out of the right place, and turned to a side: and for the paine and exulceration thereof, it is of great force either applied outwardly or injected inwardly. Scammonie, either in drink or cataplasme, sendeth forth of the body the dead fruit of the wombe. Both kinds of S. Johns wort, stirreth the issue of womens fleurs, onely by an outward application. But aboue all (in the judgement of Hippocrates) *Crithmos passeth for that, if either the seed or the root be taken in wine. As for the pill or rind thereof, it fetcheth away the after-birth also: and drunk in water, it helpeth the suffocation occasioned by the rising of the mother. The root of *Geranium likewise more particularly, is a very conuenient remedy for to bring away the after-birth, and to cure the inflammation of the matrice. Horsetaile hath a secret vertue to munieth the naturall parts of women, either drunke, or applied outwardly. Knot-grasse giuen in drinke, *staieth the inordinate and exceffiue voidance of the fleurs: so doth the root of Marsh Mallow. The leaues of Plantain, *drue downe the same: so likewise Agaricke in honied water. Mugwort stamped and incorporat with oile of Ireos, Figges, and Myrhe, hath the same effect, if it be applied accordingly: The root of which herbe, if a woman take in drinke, is so purgative and will bring her to such a laske, that shee shall withall exclude the dead infant within her bodie. A decoction made with the branches of Mugwort, bringeth downe womens monethly sicknesse, and fetcheth away the after-birth, if they sit therein: a dramme weight of the leaues taken in drinke, is of the like vertue and operation: if they be but laied vnto the belly in manner of a cataplasme, especially with barley meale, they will doe as much. Moreouer, Acoron, both the kindes of Conyza, as also Sampier, are singular good for all the inward griefes and maladies whatsoever of women. Also both kinds of Anthyllis drunke in wine, are soueraigne for the accidents of the matrice, namely to assuage the throws and wrings thereof, and to bring away the after-birth when it staieth behind. A fomentation made with Maidenhaire, is comfortable to the naturall parts of women: like as it hath vertue to clense the scurfe and dandruffe, to rid away the white patches appearing

* Clematis.

* With the yellow floure.

* Sampier, or Crestmarine.

* Herb Robert.

* Sibire.

* I maruell how that should be considering they are asfrigent, vnto us we haue recourse ad easu propriatam, i. to some secret vertue.

in the skin or haire, and to color the same black, if it be brought into powder, & with oile made into a liniment. Herb Robert drunk in white wine, and Hyocisthis in red, do stay the flux of reds or whites. Hyssop is a soueraign herb to open and relax the obstructions of the matrice causing suffocation. The root of Veruaine taken inwardly with water, is the best thing in the world for all the maladies incident to women, either in their trauell or after their deliuerance. To which effect, some there be, who together with Harstrang mix the grains of the Cypresse tree beaten to powder, and giue it to drink in grosse red wine. For the seed of Fleawort, boiled in water, and laid too warme, doth moderate and qualifie all the violent fluxes of the matrice. Camfrey stamped and giuen in grosse wine or allegant, bringeth down the sicknesse of women when it staith vpon them. The juice of Scordotis taken to the quantity of one dram in foure cyaths of honied water, giueth women speedy deliuerance in childbirth: and for that purpose, the leaues of Distamnus are excellent, if they be taken in water: and knowne it is for certain, that the weight of one obolus of those leaues giuen to a woman in hard trauell, will presently cause her to be deliuered with ease, yea though the infant were dead in the belly. The like operation hath the bastard Distamnus, but that it worketh more slowly: and in this case, they vse to tie the root of Cyclamin about the woman in labour; to cause her also to drinke Cissanthemos; yea and the powder of Berony in honied water. As for Arsenogonon and Thelygonon, they be two herbes, bearing certain grapes or berries like to oliue blossomes, but that they be more pale; and white seeds or kernels within, resembling those of white Poppy. If a woman drink Thelygonum, some say, she will therupon conceiue a maid-child. Arsenogonon differeth from the other in nothing but in the seed, which commeth neare vnto that of the oliue: and (forsooth) if she take this herb in drink, she shall haue a man-child; beleuee it who that list. Others there be, who say, that both the one and the other be like vnto Basil; and that Arsenogonon carrieth a double seed knit together like as they were two genitors.

That kind of Housleek which I called Digitellus, is singular for the diseases incident to womens Breasts. Groundswell bringeth abundance of milke into womens paps, if they drinke it in wine cuir: so doth Sowthistle sodden in frumenty. The grape called Bumastos, taketh away the haire about the nipples of nourses breasts, which spring sometime after they haue once borne children: which also otherwise is very good to cleanse the skales and scurfe in the face, and to scour away other spots and pimples arising vpon the skin. Gentian, and Nymphaea called Hecore, the root also of Cyclamin, riddeth all such cutaneal specks and blemishes. The graines of wild Carawaies, called Calalia, incorporate in wax melted and made liquid, lay the skin of the face plain and euen, and smoothe all wrinkles. The root of Acorum, serueth likewise to purifie the skin from all outward deformities. Herb Willow giueth the hair of the head a yellow colour. Hypericon, which also is named Corion, dieth it black: likewise doth Ophrys, an herbe growing with two leaues and no more, like vnto jagged Beets or Colewoorts. Also Polemonia setteth a black colour vpon haire, if it be boiled in oile. As for depilatorie medicines, which are to take away the haire from any part, the proper place to treat of them is indeed among those that pertain especially to women: but now adaies men also are come to it, and vse such deuises as well as women. The most effectually of all others be they accepted, that are made of the herbe Archezotis. The juice of Tithymall is likewise very good to fetch off haire: and yet there be some, who pluck them out first with pinfers, and then with the said iuice incorporat with oile, rub the place often in the hot sun. Finally, Hyssop tempered with oile into a liniment, is excellent to heale the mange or scab in four-footed beasts: and Sideritis hath a peculiar vertue for to cure swine of their squinies or strangles. Now is it time to pursue all other kindes of hearbes which remaine behind.

* Some think this is meant of hairs which in the paps, which should be swallowed downe by cūā, e in a cup of drinke, and so rangle in the breast, &c. a disease called by Aristotle Trichia. And Rondeletius is of an opinion, that some such thing resembling an haire may breed within the breast, of putrified humours or corrupt milke. But it seemeth by that which followeth, that Plinie meant no such matter, but rather some outward eye-sore.

THE

THE TWENTY SEVENTH BOOK OF THE HISTORIE OF NATVRE,

WRITTEN BY C. PLINIUS
SECVNDVS.

The Proeme.

CHAP. I.

Ertes, the farther that I proceed in this discourse & history of mine, the more am I forced to admire our forefathers and men of old time: for, considering as I do, what a number of simples there yet remain behind to be written of, I cannot sufficiently adore either their carefull industry, in searching and finding them out; or their liberal bounty, in imparting them so friendly to posterity. And verily, if this knowledge of Herbes had proceeded from mans inuention, doubtlesse I must needs haue thought, that the munificence of those our ancestors had surpassed the goodnesse of Nature her selfe. But now apparent and well knowne it is, That the gods were authors of that skil and cunning, or at leastwise there was some diuinitie and heavenly instinct therein, euen when it seemed to come from the braine and head of man: and to say a truth, confesse we must, That Nature (the mother and nource of all things) both in bringing forth those simples, and also in reuealing them with their vertues to mankind, hath shewed her admirable power as much as in any other work of hers whatsoeuer. The herbe Scythica is brought hither at this day out of the great fens & meers of Moëotis, where it groweth. Euphorbia commeth from the mountain Atlas, far beyond Hercules pillars & the straits of Gibraltar, and those are the very vtmost bounds of the earth: from another coast also, the herbe Britannica we haue, transported vnto vs out of Britaine, and the Islands lying without the continent, and diuided from the rest of the world; like as Æthiopia out as far as Æthyopia, a climat directly vnder the Sun, and burnt with continuall heat thereof: besides other plants and drugs necessary for the life and health of man, for which merchants passe from all parts too and fro, and by reciprocall commerce, impart them to the whole world; and all by the meanes of that happy peace which (through the infinite maiesty of the Roman Empire) the earth inioieth: in such sort, as not only people of sundry lands and nations haue recourse one vnto another in their traffick & mutual trade, but high mountains also & the cliffes surpassing the very clouds, meet as it were together, & haue means to communicat the commodities, euen the very herbs which they yeeld, one to the benefit of another: long may this blessing hold, I pray the gods, yea and continue world without end: for surely it is their heauenly gifts, that the Romans as a second Sun should giue light and shine to the whole world.

CHAP. II.

¶ Of the poison Aconite, and the Panther which is killed thereby.

Aconite alone, if there were nothing els, is sufficient to induce any man to an endlesse admiration and reuerence of that infinit care and diligence which our antients employed in searching out the secrets of Nature; considering how by their means we know there is no poison in the world so quicke in operation as it, inso much as if the shap or nature of any living creature

creature of female sex be but touched therewith, it will not liue after it one day to an end. This G was that poison wherewith *Calphurnius Bestia* killed two of his wiues lying asleep by his side, as appeareth by that challenge and declaration which *M. Caelius* his accuser framed against him. And hereupon it was, that in the end of his accusatory inuestiue, he concluded with this bitter speech, That his wiues died vpon his finger. The Poets haue feined a tale, That this herb should be ingendered first, of the fume that the dog *Cerberus* let fall vpon the ground, frothing so as he did at the mouth for anger when *Hercules* pluckt him out of hell: and therefore it is forsooth, that about *Heraclea* in *Pontus* (wher is to be seen that hole which leaderh into hel) there groweth *Aconit* in great plenty: howbeit, as deadely a bane as it is, our forefathers haue deuised means to vse it for good, and euen to saue the life of man: found they haue by experience, that being giuen in hot wine, it is a counterpoison against the sting of scorpions: for of this nature it is, that H if it meet not with some poison or other in mens bodies for to kill, it presently fets vpon them and soon brings them to their end: but if it encounter any such, it wrestleth with it alone, as hauing found within, a fit match to deale with: neither entreth it into this fight, vnlesse it find this enemy possessed already of some noble and principall part of the body, and then beginneth the combat: a wonderfull thing to obserue, that two poisons, both of them deadely of themselves and their own nature, should die one vpon another within the body. and the man by that mean only escape with life. Our ancestors in times past staid not thus, but found out and deliuered vnto vs proper remedies also for wilde beasts; and not so contented, haue shewed means how those creatures should be healed which are venomous to other: for who knoweth not, that scorpions I if they be but touched with *Aconite*, presently become pale, benumbed, astonied, and bound, confessing (as it were) themselves to be vanquished and prisoners: contrariwise, let them but touch the white *Elleboro*, they are vnbound and at liberty again; they recover (I say) their former vigor and vertue: whereby we may see, that the *Aconite* also giueth the bucklers to enemies twaine, pernicious poisons both, the one to it selfe, and the other to all the world. Now if K happily any man should say, That the wit and head alone of man could possibly compasse the knowledge of these things, surely he should shew therein his ingratitude and impiety vnto the gods, in not acknowledging their beneficence. The people about *Heraclea*, to kil the Panthers which breed in those parts, vse to rub with *Aconite* certain gobbets of flesh, which they doe lay about the mountains as a bait and bane for them: and vnlesse by this meanes they did destroy them, no doubt they would fill the whole countrie, which is the cause that some call it *Pardalich-anches*, *i. libard-bane*: but they again on the other side, presently haue recourse to the excrements of a man, as I haue before declared, the only counterpoison whereby they saue themselves: who doubteth now, but the knowledge of this secret came first to them by meere chance? and considering that it is not possible to render a reason of the nature and vsage of such wild beasts (and whensoever we see the like to fall out, we count it still a new & strange accident) we must needs attribute the finding thereof to Fortune.

CHAP. III.

¶ That of all Creatures and Inventions in this life, the author is a god.

THIS Chance and Fortune then, by means wherof we attaine to so many inuentions that we haue, is a diuine power, and no lesse indeed than a God: by which name also we vnderstand and call that great mother and mistresse of all things, dame Nature: and surely considering that conjecturall it is and doubtfull, Whether these wild beasts come by this knowledge day by day at a venture, or were indued naturally at the first with that perceiuaunce? we haue as great reason to attribute a diuinity and godhead to the one, as the other. Well, be it Chance, or be it Nature, that hath thus ordered the matter, certes a great shame it had bin, that all other creatures should haue knowne thus (as they do) what is good and profitable for them, and man only remain ignorant. But such was the industrie and goodnesse of those ancestors of ours in times past, that they not only deuised means, but also deliuered to posterity, how this venomous M herbe *Aconitum* might be most safely and commodiously mingled in those collyries and medicines which be ordained for the eies: an euident argument and plaine prooffe, I assure you, that there is nothing so bad but it hath some goodnesse in it, and may be vsed well. And therefore dispensed withall I looke to be, if I who hitherto haue written of no poisons, put downe the description

A scription thereof; to the end that a man may know it, and by knowing, take heed and beware. This herb hath leaues, resembling *Cyclamin* or the *Cucumber*, in number no more than foure, and those toward the root in some sort rough and hairy. The root but small, and the same like vnto a sea crabfish: and therefore some haue named it *Cammaron*, whereas others, for the reason before shewed, call it * *Theliphonon*. And for that the root doth turn and crook inward in manner of a scorpions taile, there be that giue it the name *Scorpion*. There wanted not others who chose rather to call it * *Myostotonon*, because with the very sent it is able to kill mice and rats a great way off. It groweth naturally vpon bare and naked rocks, which the Greeks call * *Aconas*: which is the reason (as some haue said) why it was named *Aconitum*. And for that in the place B where it groweth or neare vnto it, there is no mould, nor so much as any dust found for to giue it nourishment, some haue thought it took the name therupon. Yet there be others who assigne another cause of that denomination, to wit, for that it is as forcible and as speedy in working the death of those whom it toucheth, as the hard stopec or rag in turning or wearing the edge of any yron tooles; for no sooner commeth it neere vnto the body and is applied vnto it, but the quicke operation is sensibly found.

CHAP. IIII.

¶ Of *Æthiopis*, *Ageraton*, *Aloe*, *Alcea*, *Alypon*, *Alfina*, *Androsace*, *Androsamon*, *Ambrosia*, *Anonis*, *Anagryon*, and *Anonymon*.

THE leaues of *Æthiopis* are great and many in number, hairy also neere vnto the root, and otherwise correspondent to those of *Mullen*. It riseth vp with a four cornered stem, rough in handling, and after the manner of the main stem of the *Clot-bur*, hauing many concauities or holes like arm-pits in the grafting of the branches to the said stem. It beareth seeds like vnto Eruile, which ordinarily grow double two by two, and are white. The roots be many, and those long, full and well nourished, soft, and clammy in tast: being dried, they wax black & grow hard withal; in such sort, as a man would take them for horns. They grow ordinarily in *Æthiopia*, also vpon the mountain *Ida* in the region of *Troas*, and in *Messenia*. The right season to gather these roots, is in Autumne; and then they ought to be laid a drying in the Sun for certain daies together, to keep them from moulding. Being taken in white wine, they help the infirmities of the matrice; and the decoction therof drunk, is good for the *Sciatica*, the pleurisie, & the hoarsenesse in the throat. But that which commeth out of *Æthiopia* is counted best and hath no fellow, for it worketh presently.

As for *Ageraton*, it is an herb of the *Ferula* kind, growing vp to the height of 2 spans like to *Origanum*, but that the floures resemble buttons or brooches of gold. The fume of this herbe when it burneth, prouoketh vrin and mundifieth the matrice, especially if a woman sit in a bath thereof, and do soment the natural parts therewith. The reason of the name *Ageraton*, is this, because the floures continue very long before they see-m to fade and wither.

Aloe is an herbe which hath the resemblance of the sea-onion, but that it is bigger and the leaues be more grosse and fat, chamfered or channelled biass all along: the stem that it beareth, E is tender, red in the midst, not vnlike to *Anthericon*: one root it hath and no more, which runneth directly deep into the ground in manner of a big stake: strong it is to smell vnto, and bitter in tast. The best *Aloe* is brought out of *India*: but there groweth good store thereof in *Asia*, howbeit of no vse, but that they lay the leaues fresh vnto green wounds, for they do incarnate and heale wonderfully, like as their iuice also. And for that it is such an excellent wound-herbe, folk vse to set and sow it in barels or pipes pointed beneath, and broad above, like as they do the greater *Houfseek*. Some there be who for to draw a iuice or liquor out of it, stay not vntill the seed be ripe, but cut the stem for that purpose: others make incision also in the leaues: moreover there is otherwhile found in *Aloe* a certain liquid gum issuing out of it self, and sticking fast to the stem thereof: and therefore they hold it good to paue or ram the ground hard all about the place where *Aloe* groweth, that the earth should not drink vp the liquor which distilleth from it. * Some haue written that in *Iury* about *Ierusalem*, higher into the country, there is a certain minerall *Aloe* to be found, growing in manner of a mettall within the ground: but there is none worse than it, neither is there any blacker or moister. If you would know the * best, chuse that which is fat and cleare, of a red colour, brittle and apt to crumble, close compact in manner of a liuer,

* *Femalbane*.

* or *Myophanon*
* *Ab. prunati-*
* *usparticulus*, &
* *anis*, i. dust:
wherup bare
stones with-
out any mould
vpon them, be
also called in
Greek *anagris* &
so be wher-
stones like-
wise: Yet *The-*
* *ophrastus* is of
opinion, That
it tooketh the
name *Aconit*
of *Acon*, a
certain towne,
neer to which
it groweth a-
bundantly.

Ab. *Æthetica*,
& *Æthiopia* old
age.

* *Petronius Ni-*
* *ger*, as *Diosco-*
* *rides* saith in
his preface.
* It seemeth
that he means
here the con-
creted iuice
therof, which
we also do call
Aloe.

a liuer, easie also to melt and resolute. If you see any that is black, hard, sandy, or grittie (a thing which may soone be knowne betweene the teeth in tastings of it) the same is to be rejected for naught. Many there be who do sophisticate it with other gums and the juice Acacia. Aloe is of an astringent nature, seruing to make thick, to close fast, and gently to heat any part of the body. Much vse there is of it in many cases, but principally to loosen the belly: being the onely purgatiue medicine that is comfortable to the stomack and strengtheneth it, so farre is it from offending the same by that laxatiue vertue or any contrary qualitie that it hath: & for this purpose the ordinary dose to be giuen in drinke, is one dram. But when the stomacke is feeble and wil keep nothing, the manner is to take the quantity of one spoonfull thereof, in two cyaths of water either warm or cold, twice or thrice in a day by turns, pausing some space between as need requireth, and as the patient shall find expedient. Morcouer, if occasion be to purge the bodie thoroughly, Physitians vse to giue three drams thereof, and not above. And the better wil it work if it be taken presently before meat. If the head be rubbed or annointed therewith and some austere and astringent wine, against the haire and in the Sunne, it retaineth the haire that is ready to fall. A liniment made of it together with vineger and oile Rosat, applied vnto the forehead and temples in maner of a frontall, easeth the head ach: so doth it also, if by way of embrochation it be distilled from aloft vpon the head in a more thin and liquid substance. A very conuenient and singular medicine it is to heale all the diseases incident to the eies, but especially for the itch and scab rising in the eie-lids. Also when the skin looketh blacke and blew vnder the eies, or otherwise be marked by occasion of some bruise, it taketh them all away, if it be applied thereto with hony: and namely that which cometh out of Pontus. It is a proper remedy for the amygdals, the gums, and all the vlcers of the mouth. Taken to the weight of a dram in water, it stablisheth the spitting and voiding of bloud vward, if it be not excessiue: but in case it be violent & immoderat, it ought to be drunk in vineger. The flux of bloud in wounds, or the bleeding in any part whatsoever, it stancheth, either applied by it self alone or els with vineger. In other respects also it is right souerain for wounds, a great healer, and that which vnitheth & skinneth quickly. A singular remedy it is to be either cast vpon the vlcers of a mans yard, the swelling piles, the rifts & chaps of the seat, in plain dry powder by it self alone, or els to be applied thereto with wine or with cuit, according as the griefe requireth to be mitigated or repressed. Moreouer, it gently stablisheth the immoderat flux of bloud by the hemorrhoids. And in a clyster it is excellent to heale the exulceration of the guts in the bloody flux. Also it is very good & whole-some for those who hardly digest their meat, to drink it a pretty while after supper. And for the Jaundise it is singular to take the weight of 3 oboli thereof in water. It is good to swallow pills of Aloe either with boiled hony or Turpentine for to purge the guts and inward bowels: and a salve made therewith, taketh away the whitflaws and impostumations about the naile roots: for eie-salues, and other ocularie medicines, it ought to be washed, that the most sandy and grosse parts thereof may settle to the bottom and be separated from the purer substance: or els it ought to be torried in an earthen vessell, and plied continually with stirring with a quill or feather, that it may be burnt and calcined equally.

Touching Alcea, it is an herb bearing leaues like vnto Vervain, which also is called Peristemon, rising vp with three or foure stems, well garnished with leaues, and carrying floures in maner of Roses: it putteth forth for the most part six white roots, and those a cubit long, not directly, but crooked and bending bias. It groweth ordinarily in battle grounds, and such as stand somewhat vpon water. The roots chiefly do serue in Physick, which being taken with wine or water, do cure the dysentery or bloody flux, stop a lask, and knit those that are burst inwardly vpon some violent strain or convulsion.

As for Alypon, a pretty herbe it is, shooting vp with a slender stem adorned with little soft and tender heads, not vnlike to the Beet, quick and sharp in taste, biting exceedingly and burning, howbeit clammy to the tongue. Taken in mead with a little salt, it maketh the body soluble. The least dose that is giuen thereof is two drams, from which they arise to foure, which is counted a reasonable & indifferent potion: but neuer exceed the weight of six. And ordinarily this purgation is taken by them that haue occasion to vse it, in broth of a cock, capon or pullet.

* Alfine, which some call * Myosoton, is an herbe growing among * groues, whereupon it tooke that name Alfine. It begins to put forth and appeare about ground about midwinter, and by midsummer it is dried away: when it traileth and creepeth vpon the ground, the leaues doe represent

* Chickweed.
* i. Mouse ear.
* Alfine a groue.

A represent the ears of little mice. But another herb there is, as I will shew hereafter, which more fitly and properly in that regard may be called * Myosotis. Surely this might be taken well enough for * Hexine, but that the leaues be smaller, and those lesse hairy. It groweth usually in gardens, and most of all vpon walls: when it is stamped or bruised, it senteth of a Cucumbers Commonly used it is in cataplasmes for to be applied vnto impostumes and inflammations: and employed it may be in all those cases whereunto Parietary serueth. For the same effect they haue both, but that Chickweed is weaker in operation. And this particular property it hath by it selfe besides, to stay the flux of waterie humors into the eies: also to heale all vlcers, and those especially which are in the priuy parts, being applied thereto in a pulsette with Barly meale: the juice thereof is good to be dropped or poured into the ears.

B Androsaces is a * white herb, bitter in taste, without any leaues, but in stead thereof it hath certain little husks or cods hanging by small bents, and those containing seed within them. It groweth along the sea side, and most of all vpon the coasts of Syria. The cods being stamped or boiled in water, vineger, or wine, are good to be giuen (to the weight of 2 drams) to them that are in a dropsie, for they prouoke vrine mightily. It serueth also in the cure of the gout, either taken by the mouth, or applied outwardly in a liniment. Of the same operation is the seed also.

C Androsæmon, or as some call it Afeyron, is not vnlike to Hypericon, whereof I haue already spoken: but that the stalks be bigger, stand thicker together, and are more inclining to red: the leaues be white or grey, fashioned like vnto those of Rue: and the seed resembleth that of black Poppie: crush or bruise the vpmost crops or heads thereof, they yeeld from them a bloody iuice: in time it senteth like vnto rosin: and is found ordinarily growing in vineyards. The proper time to gather this herb is in mid Autumne, and so to hang it vp a drying. The manner is to stampe the herb, seed and all, for to purge the belly: whereof they drink either first in the morning or last after supper, the weight of two drams in mead, wine, or sheere water, so that the whole draught of the potion be a full sextar and not above. Properly it doth euacuate choler: and is principally good for the Sciatica: but the morrow after the patient ought to swallow down a dram weight of the Capers root mixed with rosin: and then after pausing foure daies between, to do the like againe: after which course of purging, if the patient be of a strong complexion, he may drinke wine; otherwise, those of a weaker constitution ought to forbear, and drinke water. Excellent good it is for all gouts of the feet, and for burns, if it be applied vnto the place, and a good vulnerary herb besides, and stancheth the bleeding of wounds.

D Ambrosia is a name that keepeth not to any one herb, but is common to many. Howbeit, the true Ambrosia runneth vp from the root into one small stem, which notwithstanding brancheth thick, riseth to the height of three spans or thereabout, and ordinarily is one third part, shorter than the root: and the leaues be like Rue. Toward the foot of the said stem it bringeth forth certain little grapes with grain or seeds within, and those haue a sent of wine, and hang down from the branches of the said herb: for which cause some there be who call it Botrys, although others giue it the name Artemisia. The people of Cappadocia vse therewith to make themselves chaplets to weare vpon their heads. This herb is much used in those accidents that require to be dissolved and sent out by the pores of the skin.

E Anonis (which some chuse rather to call Ononis) is an herbe full of branches like vnto Fennigreek, but that it springeth thicker from the root, brancheth more, and is more hairy: of a pleasant smell, and prickly, after the spring. Many vse to keep it condite in pickle. Beeing applied to any vlcere while it is fresh and Greene, it eateth away and consumeth the excrescence of proud flesh in the brims or edges thereof. The root is good for the paine of the teeth, if it be sodden in vineger and water mingled together, and the mouth washed withal: the same taken in drinke with hony, expelleth grauell and stone: boiled in Oxy-mell to the consumption of the one halfe, it is a singular drink for the falling sicknesse.

F Anagyros, which some call Acopos, is an hearbe which brancheth thicke, of a strong and stinking smell: it beareth floures like vnto those of Beets: in certaine cods like horns, which be of a good length: it bringeth forth seed resembling kidnies in shape, the which in harvest time becommeth hard: the leaues are singular good to be laid vpon impostumat swellings: they serue also for women which be in hard trauell with child, to be hanged or tied fast about them; with this charge, that presently they be remoued after they are deliuered. But if the child be dead & stick still in the matrice, or in case the afterbirth tarry behind, & wil not come away after the infant

* Alba, Hilly
Plinie hath
translated
Androsaces for
Androsæmon in
Dioscorides, which
is, hauing slender
stalkes like
rustices.

Reffa bouis.
Rest-harrow
or petie Whin

fant is born : or if a woman desire to see her monthly sicknes, it is good to drink a dram weight of the leaues in wine cuit. And in that maner they are giuen to those who be short winded : but in old wine against the sting of the venomous spiders Phalangia. The root is singular to be put to those plasters which either do resolute or maturate any impostumed place. The seed chewed, staeth immoderate vomits.

* Some take it
for Bugle or
Scler heal.
* Namelesse.

* Anonymos, finding no name to be called by, got therupon the name * Anonymos. a Plant this is brought out of Scythia to vs ; highly commended by *Hicesius* a Physitian of great name and authority, also by *Aristogiton*, for an excellent vulnerary, if it be bruised or stamped in water, and so applied; but taken inwardly in drinke, it is good for womens breasts and the precordiall parts about the heart, if they haue gotten a stripe, or be bruised: also for such as reach vp blood. Some haue ordained a vulnerary drink to be made thereof for those that be wounded. But what is said moreouer as touching this herb, I hold meere fabulous : and namely, that if two pieces of yron or brasse be put into the fire and burn together with this herbe, fresh and new gathered, they will fonder and joine againe.

CHAP. V.

¶ Of *Erith* or *Goose grasse*. Of the *Clot-bur*. Of * *Ceterach*. of *Asclepias* and *Aster* or *Bubonium*. Of *Ascyron* or *Ascyroides*. Of *Aphace*, *Alcibium*, and *Alectorolophus*.

* or *Scolopendrium*.

ERith is by some called in Greeke *Aparine*, by others *Omphalocarpus* and *Philanthropus*. An herb giuen to be full of branches, rough and prickly, carrying fise or six leaues growing round together about the said branches in order like a star, and a pretty distance there is between euery of these roundles. The seed is round, hard, hollow, and sweetish. It groweth in corn fields, in gardens and meadows: rough it is, that it is ready to * catch hold of folkes clothes as they passe by, and to stick vnto them. An effectuall herb against serpents, if a dram of the seed be drunk in wine : also for them who are pricked with the spiders Phalangia. The leaues haue a singular vertue to repress the abundant flux of blood out of wounds, if they be outwardly applied : like as the iuice hath a speciall property to help the infirmities of the ears, being dropped or poured into them.

* Whereupon
they call it *Philanthropus*, i. a
louer of man.

Arction, which some rather name *Arcturus*, is like in leafe to the great Mullen or Taperwort, but that it is more rough : the stem tall and soft, and the seed resembling Cumin. It grows ordinarily in stony grounds, with a root tender, soft, & sweet. Being sodden in wine, it easeth the tooth-ach, so that the patient hold the decoction in his mouth. For the Sciatica and frangurie it is good to be taken at the mouth in wine; and outwardly applied, it healeth burns and cureth kibed heeles: in which cases the root is much commended, if together with the seed it be stamped with wine, and a fomentation made with the decoction thereof.

* *Trientalibus*.

As touching *Asplenium*, some there be who call it *Hemionion* : an herbe putting forth many leaues * foure inches long: the root is giuen to haue cranks and holes, and those full of mud or dirt : much what do the leaues grow like to Fearn : the root is white and rough. It beareth neither stalk, stem, nor seed. It delighteth to grow among rockes and stones, vpon walls standing in the shade, and in moist grounds. The best is that which we haue out of Candy. It is commonly said, that if the decoction of the leaues boiled in vinegar be drunke forty daies together, it waisteth the swelled spleen. The same may be applied in a liniment for that purpose, & so also they do stay the excessive yex or hoeket. This herb would not be giuen to women, for it causeth them to be barren.

Asclepias beareth leaues resembling Iuie, long branches, many small roots, and those odoriferous; howbeit the flours haue a strong and rank stinking smell with them, the seed much like to the *Axvitch*. It loveth to grow vpon mountains. The roots of this herbe not only taken inwardly in drinke, but also applied outwardly in a liniment, do ease the wrings of the belly, and resist the sting of serpents. *Aster*, is by some named *Bubonium*, for that it is a present remedy for the tumours arising in the share. This herbe putteth vp a small stemme, with two or three leaues somewhat long. In the top thereof it beareth certaine little heads inuironed with spokie leaues, and those disposed round in manner of a starre. Taken in drinke, it is thought to be a preseruatiue against the venom of serpents. But to make a medicine for the share beforenamed,

A it must (they say) be gathered with the left hand : and then kept fast bound neere vnto the middle or girding place of the patient. And surely it helpeth the Sciatica, in case it be tied sure to the affected place.

Ascyron and *Ascyroides*, be herbes resembling one another, and both like vnto *Hypericon* : howbeit that which is named *Ascyroides*, hath the bigger branches, and those streight and direct, much after the manner of Fenell and such like, red throughout : and in the top thereof appeare little heads or knobs, of a yellow color. The seed contained in certain pretty cups, is small, black, and gummie : bruise the said tops or knobs between your fingers, they seem to stain them with blood, which is the cause that some call this herb * *Androsæmon*. The seed is singular for the Sciatica, namely if the patient drink two drams weight thereof in a sextar of Hydromel, that is to say, mead or honied water : for it looseth the belly and purgeth choler. A liniment made therewith, is much commended for a burne.

* Mans blood

Apace is an herb which hath very fine and small leaues : and a little taller it is than the *Lentill*; but larger cods it beareth, wherein lie three or foure seeds, blacker, moister, and smaller than the grains of the said *Lentill*. It groweth vpon corn lands. More astringent it is by nature than the *Lentill*, and bindeth stronger ; for all other matters it worketh the same effects. The seed boiled, staeth vomits and lasks.

Touching * *Alcibion*, what manner of herb it should be, I neuer could yet finde in any writer. But they giue direction to stamp the roots and leaues thereof, and so in a cataplasme to apply them vnto any place stung with serpents, and to drink them also. Now they prescribe for the drink, to take of the leaues one good handfull, and to stamp them, and so to giue them in three cyaths of meere wine full of the grape : or of the root three drams weight, with the like measure of wine.

* *Pliny* hath
forgotten
himselfe, con-
sidering that in
the 22 booke,
& 21 chapter,
he d. serues it
(as a drug to
Dioscorides) to
be in root
and leafe to
O chaner, &c.,
and here hee
na. with it
Arction.

Alectorolophus in Greek, called by vs in Latine *Crista Galli*, i. Cocks-comb, hath leaues for all the world resembling the crest or comb of a cock, and those in number many : a slender stem and black seed, inclosed within certain cods. A soueraign herb it is for them that cough, if it be boiled with bruised beans, and taken in maner of an electuary with hony. It scattereth the cloudy films that trouble the eye-sight; & the maner is to take the seed whole and sound as it is, and to put it into the eye: it is nothing offensive nor troubleth that part one whit, but gathereth to it selfe all those grosse humors which impeached the sight. And in very truth, this seed whiles it is within the eye changeth colour, and being black before, beginneth to wax white; it swelleth withall, and in the end commeth out of the eye by the owne accord.

CHAP. VI.

¶ Of *Alum*.

THe herb which we name in Latine *Alum*, the Greeks call *Symphytum Petræum*, as if one would say, Comfrey of the rock: and verily like it is to wild *Origan*. The leaues be small, and three or foure branches spring immediatly from the root : the tops whereof resemble those of *Thyme*. Much branched it is otherwise, odoriferous in smell, and sweet in taste: it draws down water into the mouth and causeth spitting. The root which it putteth forth is long & red. This herb taketh pleasure to grow in stony places among rocks: in which regard it took the addition of the name *Petræum*. Singular good it is for the sides and flanks, the spleen, reines, and wrings of the belly : for the breast, the lights, for such as reject or cast vp blood, and are troubled with the asperity and hoarsnesse in the throat: for which infirmities, the root is to be stamped, boiled in wine, and so drunke; yea, and otherwhiles to be reduced into a liniment, and so applied. Moreover, the chewing of it only, quenchech thirst, and hath a principal vertue to coole the lungs. Being applied outwardly in the form of a cataplasme, it knitteth dislocations, helpeth convulsions, is comfortable to the spleen, & the bowels or guts, if they be fallen by any rupture. The same root roasted or baked vnder the ashes, staeth a lask, in case it be first shrugged from the hairy strings thereof and pilled; and then after it is beaten into powder, be drunk in water with nine Pepper corns. And for healing of wounds, so soueraigne it is, that if it be put into the pot and sodden with pieces of flesh, it will fonder and reioine them, whereupon the Greekes imposed vpon it the name *Symphytum*, i. Confound: finally, it serueth to waite again broken bones.

CHAP.

¶ Of Reits or sea-grasse, and Wallwort. Of the wild vine, and Wormewood.

THe sea-weed that looketh red, named in Latine Alga, is very proper for the prick and sting of Scorpions.

Touching Wallwort, it hath leaues carrying a strong and stinking smell with them: the stems be rough and parted into ioints: the seed black like to that of the luy, saue that the berries containing the same be soft. This herb delighteth in shady, cool, rough, and watery places. Beeing giuen to the full quantity of one Acetabulum, it is singular for the inward maladies which be proper to women.

The wild Vine, called by the Greeks Ampelos-Agria, is an herbe (as I haue sufficiently described already in my Treatise of Vines planted and wel ordered by mans hand) which putteth forth hard leaues of Ash-colour, long branches and winding rods clad with a thicke skin, and the same be red, resembling the floure Phlox, which in the chapter and discourse of Violets, I called Iouis Flamma; and a seed it beareth much like vnto the graines within a Pomegranate. The root boiled in three cyaths of water and two cyaths of the wine comming out of the Island Coos, is a gentle emollient of the belly, and maketh the body soluble, in which regard it is giuen with good successe to such as be in a drop sicke. A very good herb for women, as well to rectifie the infirmities of the matrice, as also to scoure and beautifie the skin of their face. Moreover, for the sciatica it is good to stamp it leafe and all, and to annoint the grieved place with the iuice thereof.

As for Wormewood, there be many kindes thereof. One is named Santonicum of a city in France called Saints: another, to wit Ponticum, taketh that name of the kingdome Pontus; where the sheep feed fat with it, which is the cause that they be found without gall: neither is there a better Wormewood than it: much bitterer than that of Italy, and yet the marow or pith within of that Ponticke Wormewood, is sweet to ours. Meet and requisite it is that I should set down the vertues and properties thereof, an herb (I must needs say) as common as any, and set down the vertues and properties thereof, an herb (I must needs say) as common as any, and the most ready at hand, howbeit, few or none so good and wholesome: to say nothing of the especial account which the people of Rome make of it about their holy sacrifices and solemnities: for in those festiuall holydaies named Latinae, at what time as there is held a great running with chariots for the best game, he that first attaineth to the goale and winneth the prise, hath a draught of VVormewood presented vnto him. And I beleue verily, that our forefathers and ancestors deuised this honourable reward, for the good health of that victorious chariotier, as judging him worthy to liue still. And in truth, a right comfortable herb it is for the stomack, and doth mightily strengthen it: In which regard, there is an artificiall wine that carrieth the strength and tast thereof, named Abinthites, according as I haue shewed heretofore: moreover, there is an ordinary drinke made of the decoction of VVormewood boiled in water: for the right making whereof, take six drams weight of the leaues and sprigs together, seeth them in three sextars of raine water, and in the end put thereto a small quantity of salt; which done, the liquor ought to stand a day and a night afterwards to coole in the open aire, and then is it to be vsed: Certes, there is not a decoction of any herbe of * so great antiquitie as it, and knowne to vs: I haue bene vsed so long. Moreover, the infusion of VVormewood is in great request, and a haue bene vsed so long. Moreover, the infusion of VVormewood is in great request, and a common drinke: for so we vse to call the liquor wherein it lay steeped a certain time. Now this would be considered, that be the proportion of water what it will, the said infusion ought to stand close couered for three daies together. Seldome or neuer is there any vse of wormewood beaten to powder, ne yet of the iuice drawn by way of expression. And yet those that presse forth a iuice, take the VVormewood when the seed vpon it beginneth to swell and wax full, and being newly gathered, let it lie soking in water three daies together: but if it were drie before, to steep it a whole seuen night: which done, they set it ouer the fire in a brasen pan, with this proportion, namely, ten hemines of the herbe, to five and fortie sextars of water, and suffer it to boyle vntill a third part of the liquor be consumed: after this the decoction must run through a strainer, with hearbe and all well pressed: then ought it to be set vpon the fire againe, and suffer to seeth gently and leisurely to the height or consistence of honey, much after the order of the syrrop made of Centaurie the lesse. But when all is done, this iuleb or syrrop of VVormewood

* VVormewood is vsed in some read VVormewood, that is, if this drinke be stale, and not vsed presently, it is good for nothing.

A wood, is offensive to the stomack and head both; whereas that decoction first above named, is most wholesome: for altringent though it be, and binding the mouth of the stomack aloft yet it doth euacuat choler downward, it prouoketh vrine, keepeth the body soluble, and the belly in good temper, yea and if it be pained, giueth great ease: the worms ingendered therein, it expelleth: and being taken with Sefeli, and Celticke nard, so there be a little vineger put thereto, it dispatcheth all ventosities in the stomack, and cureth women with child of that inordinat desire and strange longing of theirs: it clenseth the stomack of those humors which cause loathing of meat, bringeth the appetite againe and helpeth concoction: if it be drunke with Rue, Pepper, and salt, it purgeth it of raw humors & crudities occasioned by want of digestion. In old time, Physicians gaue wormewood for a purgative; but then they tooke a sextar of sea water that had bin kept long, six drams of the seed, with three drams of salt, and one cyath of hony: and the better will this purgation worke, in case the poise of salt be doubled; but it would be puluerized as fine as possibly may be, to the end that it might passe away the sooner, and worke more easily. Some vse to giue the weight before said in a gruell of Barley groats, with an addition of Penitroyall: others against the Palisie: and others againe had a deuise to put the leaues of wormewood in figs, and make little children to eat them so, that they might not tast their bittrenes. Wormewood being taken with the root of Floure-de-lis, dischargeth the brest of rough fleagme, and clenseth the pipes. For the ianduse, it would be giuen in drinke raw, with * Parsley or Maiden-haire. Supped hot by little and little in water, it breaketh wind and resoluet ventosities: and together with French Spike-nard, it cureth the infirmities of the liuer: and taken with vineger, or some gruell, or els in figs, it helpeth the spleen: giuen in vineger, it helpeth those that haue eaten venomous Muthrums, or be poisoned with the gum of Chanellion called Ixia. In wine if it be taken, it saueeth those who haue drunk Hemlock: it resisteth the poison inflicted by the sting of the hardi throw, the sea dragon, and scorpions. It is holden to be singular for the clarifying of the sight: if the eyes be giuen to watering, it represseth the rheum or flux of humors thither, so it be applied with wine: cuit: and laid vnto contusions, and the skin blacke and blew vnder the eyes, with hony, it reduceth the place to the native colour againe. The vapour or fume of the decoction of wormewood receiued into the eares, shageth their paine: or if they run with corrupt matter, it is good to apply the same, reduced into powder and incorporat in hony. Take three or foure sprigs of wormewood, one root of Nardus Gallicus, boile them in six cyaths of water, it is a soeraigne medicine to drinke for to prouoke vrine, and bring downe the desired sicknesse of women: or beeing taken simply alone with hony, and withall put vp in a pessarie made with a locke of wooll, it is of speciall operation to procure their monthly terms: with honey and salnitre, it is singular for the Squinancie: it healeth chill-blanes, if they be bathed with the decoction thereof in water: applied vnto fresh or green wounds in a cataplasme, before any cold water come vnto them, it healeth them: and besides, in that manner, it cureth the scabs in the head: being incorporat with * Cyprian wax or figges, and so applied to the flanks or hypochondrial parts, it hath a particular vertue by it selfe to helpe their griefes. Moreover, it killeth any itch. Howbeit, this would be noted, that wormewood in no case must be giuen to those that haue an ague. Let a man or woman vse to drinke wormewood, they shall not be sea-sicke nor giuen to heauing, as commonly they be that are at sea. If wormewood be worne in a trusse to the bottom of the bellie, it allayeth the swelling in the share. The smell of wormewood procureth sleepe: or if it be laid vnder the pillow or bolster, provided alwaies that the patient be not ware of it. Either basted within cloaths, or strewed vpon them, it keepeth away the moth. If one rub his body therewith and oile together, it driueth gnats away: so doth the smoke thereof also when it burneth. If writing inke be tempered with the infusion of wormewood, it preserveth letters and bookes written therewith, from being gnawne by mice. The ashes of wormewood burnt, and incorporate with oile Rosat to an ointment, coloureth the haire of the head black. There is yet another kinde of Sea wormewood, which some call Seriphium: and excellent good is that which groweth about the city * Taphosiris in Ægypt. Of this wormewood it is, that the priests of Isis in their soleinne marches and processions, vse to beare branches before them. The leaues be somewhat narrower than those of the former, and the bitternesse not altogether so much. An enemy it is to the stomack: howbeit, the belly it loosneth, and chafeth worms out of the guts; for which purpose, it is good to drinke it with oile and salt: or else the infusion thereof in a * supping or grewell made with the floure of the three-moneth corne. To make the decoction

* Cum apio, not opio.

* Or the Cerot Cyprian, after Dioscorides.

* So called, because Olyris was entered, and his sepulchre renewed there.

* Or is her, a kind of sweet root called H. p. f. ma. h. o. u. c. which signifies a so i. wa. ter gruell.

coction of wormwood well, there would be taken a good handfull of wormwood, and foddren in G a sextar of water to the consumption of the one halfe.

CHAP. VIII.

¶ Of stinking Horehound : of Mille graine, or Oke of Ierusalem : of Brabyla, Bryon, Bupleuros, Catanance : of Calla, Circeæ, and Cersium : of Crataegonon and Thelygonum : of Crocodilium and Cynoforchis : of Chrysolachanon, Cucubalon, and Conserua.

STinking Horehound, which some Greeks call Ballote, others Melampasjon, *i.* Black Horehound, is an herbe tufted full of branches: the stems be black and cornered; the leaues wherewith they be clad and garnished, are somewhat hairy, resembling those of sweet or white Horehound, but that they be bigger, blacker, and of a stinking sauer: but the leaues stamped and applied with salt, be very effectually against the biting of a mad dog: also, if they be wrapped in a Colewort or Beet leafe, and so roasted vnder the embers, they are commended for the swelling piles in the fundament. This Horehound made into a salue with honey, clenseth filthie vlcers.

Botrys is an herb full of branches, and those of a yellowish colour, and beset round with seed: the leaues resemble Cichorie. Found it is commonly growing about the banks of brookes and riuers. Good it is for them that be streight-winded and cannot draw their breath but sitting vpright. The Cappadocians call it Ambrosia, others Artemisia.

As for * Brabyla, they be astrigent in manner of Quinces. More than so, I find not any Author to write thereof.

Bryon no doubt is a Sea-herbe, like in leaues to Lettuce, but that they be riuelled and wrinkled as if they were drawne together in a purse: no stem it hath, and the leaues come forth at the bottom from the root: it groweth ordinarily vpon rockes bearing out of the sea: and ye shall find it also sticking to the shels of certaine fishes, especially such as haue gathered any mud or earth about them. The herbe is exceeding astrigent and desiccative, by vertue whereof it is a singular repercussive in all impostumes and inflammations of the gout especially, & such as require to be repressed or cooled.

Touching Bupleuros, I read that the seed thereof is given against the sting of serpents: and that the wounds inflicted by them, are to be washed or fomented with the decoction of the herb, putting thereto the leaues of the Mulberrie tree, or Origan.

Catanance is a meere Thessalian herb, and growing nowhere els but in Thessalie; and forasmuch as it is vsed only in amatorious matters, and for to spice loue drinks withall, I meane not to busie my selfe in the description thereof: howbeit, thus much it would not be amisse to note, for to detect and lay open the folly and vanities of Magitians; namely, that they went by this conjecture onely, that it should be of power to win the loue of women, because forsooth when it is withered, it draweth it selfe inward * like a dead kites foot. For the same reason also, I will hold my tongue and say neuer a word of the herb * Cemos.

* Cala is of two sorts: the one like to Aron, which loueth to grow in toiled and ploughed grounds: the time to gather this herb is before it begin to wither: the same operation it hath that Aron, and is vsed to the like purposes: the root thereof is commended to be giuen in drink for a purgation of the belly, and to prouoke the monthly termes of women: the stalkes boyled leafe and all together with some pulse or other into a pottage, and so taken, cure the inordinate prouocations to the stoole, and streinings thereupon without doing any thing. The second kind some call Anchusa, others, * Rhinochilia: the leaues resemble Lettuce, but that they be longer, full of plume or down; the root red, which being applied with the floure of barley groats, healeth shingles, or any other kind of *S. Anthonies* fire: but drunke in white wine, cureth the infirmities of the liuer.

Circeum is an herb like to winter Cherry or Alkakengi, but for the flours which are black: the seed small, as the graine of Millet, and the same groweth in huskes or bladders resembling little hornes: the root is halfe a foot long, forked for the most part into three or foure grains or branches: the same is white, odoriferous and hot in the mouth: it loueth to grow vpon rockes and stonie grounds lying pleasantly vpon the Sun. The infusion of this root in wine, is good to

A be drunke for the paine and other diseases of the matrice: but of the said root there ought to be taken three ounces stamped, and the same to steepe a day and night in 3 sextars of wine, for to make the infusion aboue-named. This portion also serues to send down the after-birth, if it stay behind. The seed of this herbe drieth vp milke, if it be drunke in wine or mead.

Cirson commeth vp with a slender stalke two cubits high, and seemeth to be made 3 cornered triangle-wise: the same is beset round about with prickie leaues: howbeit, the said prickies are but tender and soft. The leaues in forme resemble an ox tongue or the herb * Langue-de-boeuf, but that they be smaller and somewhat white, in the top whereof there put forth purple buttons or little heads, which in the end turne to a plume like thistle down. Some writers hold, that this herb or the root onely, bound vnto the swelling veines called Varices, doth allay the paine thereof.

Crataegonos spindleth in the head like vnto the eare of wheat, and out of one single root ye shall haue many shoots to spring and rise vp into blade and straw, and those also full of ioints. It gladly groweth in coole and shadowie places: the seed resemblith the grain of the Millet, which is very sharp and biting at the tongues end. If a man & his wife before they company together carnally, drink before supper for 40 daies together the weight of three oboli of this seed, either in wine, or as many cyaths of water, they shall haue a man childe betwene them, as some say. There is another * Crataegonos, called also Thelygonos; & the difference from the other may soon be known by the mildnesse in taste. Some authors affirme, that if women vse to drinke the floures of Crataegonos, they shall within 40 daies conceiue with child. But as well the one as

C the other applied with honey, do heale old vlcers: they incarnat and fill vp the hollow concavities of fistulous sores: and such parts as do mislike and want nourishment, they cause to gather flesh and fill the skin again: soule and filthy vlcers they mundifie, the flat biles and risings called Pani they rarifie and discusse: gouts of the feet they mitigat; & generally all impostumations, in womens breasts specially, they resolute and assuage. *Theophrastus* would haue a kind of tree to be called Crataegonos or Crataegon, which here in Italy they call * Aquifolia.

Crocodilium doth in shape resemble the thistly herbe or Artichoke called the blacke Chamaeleon: the root is long and thicke in all parts alike, of an hard and vnpleasant smel: it groweth ordinarily in sandy or grauelly grounds. If one drinke of it (they say) it will set the nose a bleeding, and send out a deale of thicke and grosse blood, that the spleene will diminish and

D weare away by that means. As touching Testiculus Canis or Dogs-stones, which the Greeks call Cynoforchis, & others simply Orchis, it hath leaues like vnto those of the oliue; soft & tender they are, and about halfe a foot long, and therefore no marvell if they lie spread vpon the ground: the root is bulbous and growing long-wise, in a double ranke, or two together: the one aboue, which is the harder, the other vnder it, and that is the softer: when they be foddren, folke vse to eat them after the manner of other bulbs: and lightly a man shall find them growing in vineyards. Of these two roots, if a man eat the bigger, it is said, that he shall beget boies; and if the woman eat the smaller, she shall conceiue a maiden childe. In Thessalie, men vse for to drinke in goats milke, the softer of these roots, to make themselves lustie for the act of generation; but the harder, when they would E coole the heat of lust: whereby we may see, that they be contrarie, and one hindereth the operation of the other.

Chrysolachanon commeth vp like a Lettuce, and commonly groweth in plots of ground set with Pines: the vertue of this herbe is to heale wounds of the sinewes though they were cut quite asunder, if it be presently laied too. There is another kinde of * Chrysolachanon, bearing floures of a golden colour, and leaved like vnto the Beet: when it is boiled, folke vse to eat it in stead of meat, and it looseth the belly as well as Beets, Coleworts, and such like: and if it be true that is reported, whosoever beare this herbe tied fast about any place of their bodies which is euery in their eie, so as they may see the same continually, it will cure them of the jaundise. Touching this herbe Chrysolachanon, well I wot that I haue not written sufficiently, that men might know it by this description, and yet could I neuer meet with any author who hath said more, or described it better. This verily hath been the fault and oversight euen of our moderne Herbarists of late daies, To write feightly of those herbes and simples which they themselves knew and were acquainted with, as if forsooth they had been knowne to euery man; setting downe onely their names and no more: which is euen as much as to tell vs a tale and say,

* Parry: but it should be Mar-ruby, according to the Greeke word *μαργαρίτης*.

* Some take them for Damask-plums, or rather for Bullois, Skags, or such like wilde Plums.

* As if it would catch women and hold them fast perforce. * *καλα* or *καλα* in Greeke signifies a bridle or bit: and it is thought to be *Leontopodium*, *Dioscor.* though others take it for *Poder.* * Or rather *Calla*. * Rather *Oreoclea*, out of *Dioscorides*.

* Or Borage, called in Greeke *Βαγος*.

* Some take this for our *Perficaria*, or *Art-mert*.

* *i.* Holly or Hulier: nay rather, *Aquifolia* is *Agrifolia* in Greeke: and the *Crataegus* of *Theophrastus*, which he meaneth here, is a kinde of *Ceruoise* tree now called *Terminalis*.

* I thinke he meaneth *Oreoclea*.

* *Coagula terre*
Some thinke
this place vn-
perfect, but I
guede rather,
that *Pliny* her-
in glanceth at
the obsecritie
of their wri-
tings in those
daies of sim-
ples, who put
downe that
herbe many
times, which
no man can
make any sense
of no more
than of *Coagu-
la terre.*
* *a conferru-
mingande.*

that with the * rennet or rundles of the earth, one might stay a laske, or giue free passage to the
vrine in the strangury, so it be drunke in wine or water.

As for Cucubalum, they write of it, That if the leaues bee stamped with vineger, they heale the stings of serpents and scorpions. Some of them cal this herb by another name, Strumus, and others giue it the Greeke name Strychnos: and black berries (they say) it hath. The iuice thereof taken to the quantity of one cyath, with twice as much honied wine, is foueraigne for the loins or small of the back: likewise it easeth the head-ache, if together with oile of roses it bee distilled vpon the head by way of embrochation. The herb it selfe in substance made into a liniment, healeth the wens called the kings euill.

Concerning the fresh water Spunge (for so I may more truly terme it, than either mosse or herbe, so thicke of shag haire it is and fitfulous withal) it groweth ordinarily within the riuers that issue from the root of the Alpes, and is named in Latine * Conferua, for that it is good to conglutinat, in manner of a soulder. Certes, I my selfe know a poore labourer, who as he was lopping a tall tree, fell from the top down to the ground, and was so pitiously bruised thereby, that vnneath he had any sound bone in all his body that was vnbroken: and in very truth, lapped he was all ouer with this mosse or spunge (call it whether you will) and the same was kept euermore moist and wet with sprinkling his owne water vpon it, whensoever it began to drie vpon him with the heat of his body: seldome was it vndone or remoued, and neuer but when of necessity for verie change fresh was laied too for default of the other: and by this manner of cure and no other, the poore wretch recovered perfectly, in so smal a time, that it was wonderful and almost incredible.

CHAP. IX.

¶ Of the berrie called *Coccum Gnidium*. Of the *Taxill*, and *Oke fern*e. Of *Dryophonon*, and *Elatine*. Of *Empeirum*, otherwise named *Calcitragra*. Of *Epipactis*, or *Eleborine*. Of *Epimedium*, *Enneaphyllon*, and *Ferne*. Of the herbe named *Oxe-thigh*. Of *Galeopsis*, otherwise *Galeobdolon*. Of *Glaux*, or *Eugalactum*.

THe berrie *Coccum Gnidium*, in colour resembleth the Scarlet graine; in quantity a pepper corne, but that it is bigger : of an ardent and caustick quality it is, and therefore they vse to lap it in the soft crum or pith of a loaf of bread, and to swallow it, for feare it should burn the throat as it passeth down. A present remedy this is for those who are impoisoned with Hemlocke ; and it hath a good propertie to stop a laske.

The Tazill, called in Greeke * Dipfacos, hath leaues much resembling LeAuce, fauing that in the mids of the back-part, there are to be feen certain bubbles as it were, or rifings, and thofe be prickly: the main ſtem which it beareth, is two cubits high, and the ſame armed with prickles: at euery ioint and knot whereof, it putteth forth two leaues which do compaſſe and incloſe the ſame round about in maner of wings, making thereby a certaine * concauitie or hollow receptacle, wherein alwaies there ſtandeth a * ſaltish dew or water. In the top of this maine ſtem and other branches proceeding from it, it beareth certaine burry heads, beſet all ouer with ſharpe prickles, like thoſe of an Vrchin: and it loueth to grow in waterie places. This herb cloſeth vp and ſkinneeth the fiſſures or chaps in the fundament: alſo the root boiled in wine, healeth fiſtulous; but the ſame ought to be ſo tender ſodden, as it may be wrought like wax, that a colyrie or tent made of it may be put into the concauitie of the fore. Moreouer, it cureth werts of all forts: and ſome there be, who to take away werts, waſh them with the liquor found in the hollow pith of the foreſaid wings. The Oke fern named in Greeke Dryopteris, is like to other fern, & groweth vpon trees, hauing leaues finely ſlit, and thoſe ſomewhat ſweet in taſt: the root is rough and hairy: of a cauftick and fiery nature is this herb; and therefore the root being punned, is a depilatory and fetcheth off haire: for which purpoſe, the manner is to apply it in manner of a liniment, vntill it procure ſweat: which courſe would be re-iterated twice or thrice, during which time the ſweat muſt not be wiped away.

Dryophanon is an herb much like to Dryopteris: the stems wherof be small, yet growing to the length of a cubit, & those be inuironed on both sides with leaues an inch broad: in shape much like to Bruscus or butchers-broom, called in Greek Oxymyr sine, but they be whiter and softer,

A softer, bearing a white floure likewise in manner of the Elder. The young crops and tendrils of this herb, may be eaten when they are sodden: and the seed is commonly vsed in stead of pepper.

Running Buckwheat or **Bindweed**, named in Greek *Elatine*, putteth forth final leaves, round and hairy, much like to those of *Parietary* of the wall; and immediately from the root there spring fine or six pretty branches halfe a foot long, furnished well with leaves. This herb grows among corn: foure it is and harsh in taste, wherupon it is taken to be very effectuall to repress the fluxe of humors which cause watering eyes, if the leaves be stamped with barley groats, and applied with a fine linnen cloth underneath. The same boiled together with *Linseed*, cureth the bloody flux, in case the patient drinke the broth or decoction thereof.

As for Empetron, which our countrymen in Latine name Calcifraga, it groweth vpon mountains regarding the sea, and commonly vpon rocks and stony cliffes: the nearer it is to the sea, the saltier tast it hath, by which means if it be taken in drink, it purgeth choler & fleam: the farther off that it groweth from the sea, and the more terrene and earthly substance that it hath, the bitterer it is found to be, and this doth euacuat waterish humors: but the manner of taking it, is in some porage, or els in mead. Being long kept, it loseth the force: if it be fresh and new gathered, and then either foddren or stamped, it is diureticall and breaketh the stone. And verily they that promise thus much in the behalfe of Empetron, and would seeme to iustifie and make good their word, do affirme for the better credit thereof, That if stones doe boile with it in the same pan, they will burst in peeces.

C Epipactis, named by some Elleborine, is a little herb bearing small leaues: soueraign for the diseases of the liuer, and against all poisons, if it be taken in drinke.

Epimenidion putteth forth no great stem, bearing ten or twelve leaues resembling the Iuie, but it neuer sheweth floure: the root is smal, black, and of a strong and stinking smell: it groweth vpon moist grounds: of an astringent nature it is, and cooleth mightily: an herbe that women * must beware of. The leaues stamped and applied to the paps of maides, keep them down that that they shall not grow.

Encephallon hath long leaues, in number nine, neither fewer nor more, and those be of a burning or causticke nature: a singular hearbe for the paines of loines, and the Sciatica, but it ought to be applied enwrapped well in wooll, for feare leaft it burne the flanks, for presently it maketh blisters.

D Of Ferne be two kinds, and they beare neither floure nor seed. Some of the Greekes call the one Pteris, others Blechnon: from one root whereof there spring many branches representing wings, and those exceed two cubits in length, yeelding * no vnpleasant fauor, and this they suppose to be the male. The second kind, the laide Greeks some call Thelypteris, others Nymphaea Pteris: this groweth single, and brancheth not into many stems; shorter it is than the former, softer also, and thicker of leaues, and those toward the root guttered and somewhat hollow: there is neither of them both, but their roots will feed swine fat: and the leaues of the one as well as the other, are disposed on both sides so, as they do represent birds wings, wherupon the Greeks gaue them the name * Pteris. The roots of both Fernes be long, and those growing bias: in colour blacke, especially when they be drie: and dried they ought to be in the Sunne. Fern grow-

* This *Empe-170* is thought to be our *Saxifrage*.

* For it hind-
ereth concep-
tion.

* Non graui o-
dore: Dioscor.
faith, Sub. gra-
ues odore, some-
what vnplea-
sant in smell.

And in *Colymella*, *Filix* is called *Auia*.

B b 3

Ferne

CHAP. XI.

¶ Of *Hypoglossa* and *Hypecoon*, *Idæa*, *Isopyron*, *Lathyrus*, *Leontopetalon*, *Lycopsis*, *Lithospermon*. The vulgar stone. Of *Limeum*, *Leuce*, and *Leucographis*.

Bistlingua.
Horse-tongue,
or Double-
tongue.

Hypoglossa hath leaues fashioned like vnto Butchers broome, and those turning hollow, and prickie: within which concauities there come forth certaine little leaues resembling tongues. A garland or chaplet made of these leaues, and set vpon the head, easeth the pain thereof.

Hypecoon groweth amongst corne, and is leaved like vnto Rue. It hath the same nature and properties that Opium or the juice of Poppie.

As for the herb *Idæa*, the leaues thereof resemble those of ground-Myrtle or Butchers broom: vnto which there grow close certaine tendrils, and those carry floures. It stoppeth a lask, staith the immoderat flux of womens moneths, and stancheth all vnmeasurable bleeding: for by nature astrigent it is and repercussive.

Isopyron, some there be who call it *Phasiolum*, because the leaf (otherwise like vnto *Annis*) doth turne and writhe like vnto the tendrils of *Phasils*. In the top of the stemme it beareth small heads or buttons full of seed, resembling *Nigella Romana*. A soueraigne hearbe, taken either in hony or mead, against the cough and other infirmities of the breast: likewise for the accidents of the liuer.

* *Lathyrus*.
* For the mil-
ky juice chaply.
For *Discolor*.
saith *amysda-*
la, of the Al-
mond tree.
* *Purgat facili-*
tia. Some
thinke gentle
purgatives.

* Spurge hath many leaues resembling * *Lectuce*: besides which, it putteth forth as many other slender and small branches, containing in little tunicles or husks certain seeds in manner of capers: which being dried and taken forth, resemble for bignesse corns of Pepper, white in colour, sweet in tast, & easie * to be clenfed from their husk. Twenty of these seeds drunk either in cleare water or mead, do cure the dropsie: besides waters humors, they euacuat choler. They that desire to be thoroughly purged & would haue them to work strongly, vse to take them husk and all; but certainly so taken, they hurt the stomack: and therefore there is a deuise of late found out to giue them either with fish, or els in some broth of a cock or capon.

Leontopetalon, which some call *Rhaphion*, carrieth leaues like to Coleworts, and a stalk halfe a foot high, garnished with many branches resembling wings: and seed it beareth in the head contained within cods, after the maner of eiches. The root is made much after the fashion of a rape or turnep, big and black withall. This herb groweth in corne grounds. The root is a singular counterpoison to be giuen in wine against the sting or venome of any serpents; and verily there is not in the world a more speedy remedy. Very good it is for the *Sciatica*.

* Some take it
for a kind of
Orchard,
others for
Hounds-
tongue.

* *Lycopsis* hath leaues like to *Lectuce*, but that they be longer and thicker: it riseth vp with a long stem, and the same hairy, with many branches growing thereto of a cubit in length: and beareth little Purple floures. It loueth to grow vpon champion plaines. A liniment made with it and barley meale, is good for the shingles and *S. Anthonies* fire. In agues it procureth sweat, so that the patient drink the juice thereof mingled with hot water.

* *Quincuncialis*.
is fire: others
read *Quincque*
caulibus ferè,
i. commonly it
beareth fise
stalkes.
* This some
take to bee
nearer of that
Greimile cal-
led *lobi*, teares.

But of all herbes that be, there is none more wonderful then *Greimile*: some call it in Greek *Lithospermon*, others *Ægonychon*, some *Diospyron*, and other *Heracleos*. It groweth ordinarily * five inches high: and the leaues be twice as big as those of Rue. The foresaid stalks or stems be no thicker than bents or rushes, and the same garnished with small and slender branches. It bringeth forth close ioining to the leaues, certain little beards one by one, & in the top of them little stones white and round in manner of pearls, as big as eich pease, but as hard as very stones. Toward that side where they hang to their steles or railes, they haue certain holes or * concauities containing seed within. This herb groweth in Italy, but the best in the Island Candy. And verily of all the plants that euer I saw, I neuer wondred at any more: so lightly it groweth, as if some artificiall goldsmith had set in an alternatiue course and order, these prety beads like orient pearls among the leaues: & so rare a thing it is & difficult to be conceiued, that a very hard stone should grow out of an herb. The Herbarists who haue written thereof, do say that it lieth along and crepeth by the ground: for mine owne patt, I neuer saw it growing in the plant: but shewed it was vnto me plucked out of the ground. This is for certaine knowne, that these little stones called *Greimile* seed, drunke to the weight of one dram in white wine, breake the stone, expell

A expell the same by grauell, and dispatch those causes that be occasions of strangurie. Certes, a man no sooner seeth this hearb, but he may presently know the vertues thereof, and for what it serueth in Physicke; a thing that he shall not obserue again in any other whatsoeuer: for at the very first sight of these little stones, his eie will tell him what it is good for, without information from any person at all. There be common stones found about riuers, bearing a certain drie hoary mosse vpon them. Rub one of these stones against another, hauing spit first therupon, and then therewith touch the tetter or ringworme in any part of the body, it will kill the same: but the party must as he toucheth it, vtter this charme following:

* *ῥαῖς καὶ σαλίδας, ἄνεθ' ἀγροῦ ὕμνος δίδω.*

That is to say,

Cantharides flie apace: for a wilde Wolfe followeth in chase.

B The French-men haue a certaine herbe which they call *Limeum*, out of which they draw a venomous juice, named by them Stags poison, wherewith they vse to envenome their Arrow heads when they go to hunt their red Deere: Take of this as much as goeth to the poysoning of one arrow, and put it in three measures or Modij of a mash wherewith they vse to drench cattel: and make sops thereof, and conuey them down the throat of sick oxen or kine, it will recouer them. But presently after the receipt of this medicine, they must be tied vp sure vnto their boues vntill the medicine haue done purging: for the beasts commonly fare all the while that it is in working, as if they were wood. In case they fall a sweating vpon it, they must be washed all ouer with cold water.

* *Leuce* is an herbe like vnto Mercury; but it tooke that name by reason of a certaine white strake or line that runneth crosse through the mids of the leafe, for which cause some call it *Mesoleucas*. The iuice of this herbe healeth fistuloes: and the substance of the herbe it selfe stamped, cureth cancerous sores. It may be peraduenture the same herb which is named *Leucas*, that is so effectuell against all venomous stings proceeding from any sea-fishes. The herbarists haue not described this herb otherwise than thus, That the wild kind thereof with the broader leafe, is more effectual in the leaues; and that the seed of the garden kind, hath more acrimony than the other.

D Touching *Leucographis*, what manner of herbe it should be, I haue not found in any writer: and I wonder therat the rather, because it is reported to be so good for them that void & reach bloud vpward, namely, if it be taken to the weight of three oboli with Saffron: likewise stamped with water and so applied, it is singular good against those fluxes that proceed from the imbecility of the stomack: soueraigne also for to stay the immoderat flux of womens termes. And it entereth into those medicines which are appropriate for the eies, yea and into incarnatiues, such especially as be fit to incarnat those vlcers which are in the most tender and delicat parts of the body.

CHAP. XII.

E ¶ Of *Medium*, *Myosota*, *Myagros*, *Nigina*, *Natrix*, *Odontitis*, *Othenne*, *Omosma*, *Onosporos*, *Osfris*, *Oxys*, *Batrachion*, *Polygonois*, *Pancration*, *Peplos*, *Periclymenos*, *Laucanthemon*, *Phytocuma*, *Phyllon*, *Phellandrium*, *Phalaris*, *Polyrrhizon*, and *Proserpinaca*: of *Rhacoma*, *Refeda*, and *Stachas*.

Medion hath leaues like vnto * garden Floure-de-lis. A stem three foot * high, garnished with faire large floures, of purple colour, and round in forme: the seed is small, and the root halfe a foot long: it groweth willingly vpon stony grounds lying in the shade. The root taken in a liquid electuary or lohoch made with hony to the quantity of 2 drams, for cert daies together, staith the immoderat flux of womens monethly termes. The seed also reduced into powder and drunke in wine, represseth their extraordinary shifts.

* *Myosota*, otherwise called *Myosotis*, is a smooth herbe, shooting forth many stems from one single root, and those in some sort of a reddish colour, and hollow: garnished with leaues, which toward the root be narrow, long, and blackish, hauing their backe part sharpe and edged: which leaues grow along the stems two by two together: and out of the concauities or armpits be-

* He termeth
terrors or ring-
wormes *Can-*
tharides, and
the said stone,
the wild Wolfe

* *Medusa Sa-*
racenica.

* *Tridactylus*:
others read *Se-*
ridis, i. *Endiue*.
* *Tripedale*.
But *Discolor*.
saith *Tricubi-*
alem, i. three
cubits high.
* Mouse eare.

between the stalk and them, there put forth other small branches with a blew floure. The root is of the thicknesse of a mans finger, bearded with many small strings resembling hairs. This root is of a corrosiue nature, fretting and exulcerating any place wherunto it is applied: in which regard it healeth vp the fistulous vlcers called *Egilops*, growing between the nose and angles of the eies. The *Egyptians* are of opinion, that if vpon the 27 day of that moneth which they call *Thiatis* (and which answereth very neare to our moneth August) a man or woman do annoint themselves with the juice of this herb in a morning before they haue spoken one word, he or she shall not be troubled with bleared eies all that yeare long.

Myagros is an herb growing vp with stems in manner of *Fenell* geant, in leaues resembling *Madder*, and riseth to the height of 3 foot. The seed which it beareth is oleous, & out of it there is an oile drawne, which is good for the sores in the mouth, if they be annointed therewith.

The herbe called *Nigina*, hath three long leaues like vnto those of *Succorie*; wherewith if scars (remaining after vlcers and wounds) be rubbed, it will reduce them to the natural color of the other skin.

There is an herb, which in Latine is named *Natrix*, the root whereof being pulled out of the ground, hath a rank smell like vnto a Goat; with this herbe they vse in the *Picene* country to driue away those hob-goblins which they haue a marvellous opinion to be spirits, called *Farii*: but for mine own part, I am verily persuaded they be nothing else but fantastickall illusions of such as be troubled in mind and bestraught, the which may be chased and rid away by the vse of this medicinable herbe.

Odontitis may be reckoned among the kinds of hey-grasse, putting forth many small stems growing thicke together from one root, and those knotted and full of ioints, triangled and blackish withall: in euery ioint small leaues it hath, resembling those of knot-grasse, howbeit somewhat longer: in the concauities between the said leaues and the stem there is contained a seed like vnto Barly corns: the floure is of a purple colour, and very small. It groweth ordinarily in meadow grounds. The decoction of the branches and tender stalks of this herb, to the quantitie of one handfull, boiled in some astringent wine, cureth the toothach, if the patient hold the same in the mouth.

Othonne groweth plenteously in *Scythia*, like vnto *Rocket*: the leaues be full of holes, and the floure resembleth *Safron*: which is the cause that some haue called it *Anemone*. The juice of this herbe entreth very well into those medicines which are appropriate to the eies; for it is somewhat mordicatiue, and heateth gently: besides exiccatiue it is, and by that meanes astringent. It clenseth the eies of those films and clouds which darken the sight, and remoueth whatsoever hindereth the same. Some ordain for this purpose that it should be washed first, and after it is dried againe made into certain balls or trofchisks.

Onosma beareth leaues wel-neare three fingers long, and those lying flat vpon the ground: three in number, and indented or cut after the manner of *Orchanet*, without stem, without floure, without seed. If a woman with child eat thereof, or do but step ouer it, she shall cast her vntimely birth out of her wombe.

As for *Onopordon*, they say if a fesse eat thereof, they will fall a fizing and farting. Howbeit of vertue it is to prouoke vrine, and the monethly sicknesse of women: to stop a laske, to discusse and resolute impostumes, and to heale them when they be broken and do run.

* *Osyris* putteth forth small branches of a browne colour, slender, pliable, and easie to wind; the same be garnished with leaues * resembling those of *Line* or *flax*, of a dark & dusky green at first, but afterwards changing colour, and inclining to a red colour, and the seed is contained in those branches. Of these leaues are made certain washing balls, to scoure womens skin, and make them look faire. The decoction of the root being drunk, cureth those that haue the jaundice. The same roots, gathered before the seed be ripe, cut into roundles, and dried in the Sun, do stop the laske: but drawn after that the seed is ripe, they repress all catarrhes and fluxes of the belly, if the patient drink the supping wherein they are boiled. Also stamped simply, and so giuen in rain water, they haue the same effect.

* *Oxys* beareth three leaues and no more. This herb is singular to be giuen for a feeble stomach which hath lost all appetite to meat. They also who haue a rupture, and whose guts be fallen down, eat thereof to very good successe.

Polyanthemum, which some call *Batrachion*, hath a causticke quality, whereby it doth blister

* *Linaria* or
"Roads" flax.
* According
to *Dioscorides*.

* *Cuckowes*
nest, or
Wood-sorrell.

After any vnseemly scars, by means whereof, reduceth them to their fresh and former colour: the same also applied, scoureth away the morpew, and bringeth the skin to the natie hue, answerable to the rest of the body.

Knot-grasse is that herb, which the Greeks name *Polygonon*, and we in Latine, *Sanguinaria*: in leaf it resembleth *Rue*, in seed common quich grasse, & riseth not from the ground but creepeth along: the juice of this herb conueied vp into the nostrils, stancheth bleeding at the nose. They who set down many kinds of *Polygonon*, do hold that this is to be taken for the male, and by reason of the multitude of seed which it beareth is called * *Polygonon*: or for that it groweth so thick in tufts, *Calligonon*. Others name it * *Polygonaton*, for the number of * knots or knees which it carrieth. There be again, who giue it the name *Theuthalis*: some call it *Carcinotron*, others *Clema*, & many *Myrtopetalon*: and yet I meet with some writers, who say this is the female knot-grasse: and that the male is the greater, and not altogether so dark of colour, growing also thicker with knots, & swelling with seed vnder euery leaf: wel, howsoever it is, the property of them both, the one as well as the other, is to bind and coole: and yet their * seed doth loosen the belly, which if taken in any great quantity, is diuretical and represseth any rheums, provided alwaies that the patient be troubled therewith, otherwise it doth no good. The leaues are singular good to be applied vnto the stomach, for to assuage the heat thereof: in a liniment they mitigat the grieue of the bladder, and stop the course of shingles and such like wilde-fires. The juice is soueraigne to be dropped alone by it selfe into the eares that run, and into the eyes to abate their pain. It is vsually giuen to the quantity of 2 cyaths in tertian Agues, and Quartans especially, before the fit commeth: likewise for the feeblenesse of the stomach when it will keep nothing: for the bloody flux, and the rage of cholerick humors both vpward and downward

A third kind there is, which they call * *Oreon*, growing vpon the mountains, resembling a tender reed: rising vp in one single stem, but full of little knees or knots, and those * couched & thrust together. Leased it is like the *Pitch* tree: the root needlesse, and of no vse: and generally the whole herb of lesse strength and operation than the former. Howbeit, this singular propertie hath it, to help the sciatica. A fourth *Polygonum* there is, called the wild; and this busheth like a shrub or a pretty tree rather: the root is of a woody substance, & the stock or plant of a reddish colour, resembling the *Cedar*: it beareth branches much like to *Spart* or *Spanish broome*, two spans long, iointed into three or four knots, and those of a blackish colour. This also hath an astringent nature, and tasteth in the mouth like to a Quince. The decoction thereof in water, till the third part be consumed, or the poudre of it dried, is commended for the sores in the mouth, and for any part that is fretted and galled. And the very substance thereof is good to be chewed in case the gums be sore. It represseth the malignity of eating corrosiue vlcers and cankers: and in one word, staith the malice of all sores that run on end, and be vntoward for to be healed: but a peculiar property it hath by it selfe to cure any vlcere occasioned by the snow. Our Herbarists vse this kind much for the squinancy; and to ease the head-ach, make a garland thereof, appointing it to be set vpon the head: but to repress any violent catarrhs, they prescribe to wear it about the neck. In Tertian agues, some giue direction to pluck it out of the ground with the left hand, and then to tie it to the arm or other part of the patient. And there is not an herb or plant that they be more careful to keep dry and to haue alwaies ready at hand, than *Polygonon*, for to stanch any issue or flux of blood whatsoever.

Pancration, which some chuse rather to call the little *Squilla* or sea-onion, beareth leaues resembling the white Lilly, but that they be longer and thicker, with a great bulbous root; & the same in colored. The juice of it taken with the floure of *Eruile*, maketh the belly laxatiue: and outwardly applied, mundifieth vlcers. For the dropsie and hardnesse of the spleene, it is giuen with hony in maner of a syrrop. Some take the root and boile it in water vntill the liquor be sweet, which they poure forth; and then stamp the said root, and reduce it into bals or trofches, which they lay to dry in the Sun: and vse them afterwards as occasion serueth for the skals or vlcers of the head, and all other sores that require mundification. Semblably, they giue thereof as much as one may take vp with three fingers in wine, for the cough, and in a liquid eleatuarie or lochoch for the pleurisie and peripneumonie. They prescribe it likewise to be drunke in wine for the Sciatica: to allay also the gripes and wrings of the belly, and to procure the monethly termes of women.

* *Peplos*, called by some *Syce*, by others *Meconion* * *Aphrodes*, from one smal root busheth into

* of many many
and vire seeds
* And yet *Serapion*
saith it
is called *Polygonon*, because
it groweth e-
uery where so
common.

* For *poly* sig-
nifieth a knee
or knot.

* *Atum* fol-
lium. If the
place be not
corrupt, as I
doubt it is.

* *Oreon*, ab *epi*,
a mountaine.
Some reade
epi, i. faie:

others, *epi*, for
that it growes
like to an hoi-
taile, or the
herbe *Hippuris*.

* In *Isfardis*.

* A kind of
Efula.
* i. Floethe
Poppie.

into many branches; the leaues be like vnto Rue, but that they be somewhat broader: the seed appeareth vnder the leaues round, & (but that they be smaller) not vnlike to the white Poppie. Ordinarily it is found among Vines, and they gather it in haruest time. They hang it forth seed and all together a drying, setting water vnderneath, that the said seed or fruit may fall down into it. If it be taken in drinke, it purgeth the belly, and doth euacuat both choler and fleagme. The measure of one acetable is counted an ordinary and indifferent potion to be drunk in three hemines of mead or honied water. With this seed they vse to powder meats and viands, thereby to keep the body soluble.

* Wood-bind.

* *Periclymenon* is also a bushie plant, and loueth to branch much: it beareth whitish & soft leaues, disposed two by two at certain spaces & distances very orderly. In the top of the branches it beareth hard feeds between the leaues, which hardly may be plucked off. It groweth in tilled corn fields & hedges, winding about euery thing that it can catch hold of, for to support and beare it vp. The seed after it is dried in the shade, folk vse to pun in a mortar, and so to make it vp into trochisks. In case that the spleen be swollen or hard, they take of these troches, and after they be dissolued, giue thereof a sufficient quantity in 3 cyaths of white wine for 30 daies together: which drink is of such operation, that it will waite and spend the spleen, partly by vrine which will appeare bloody, and partly also by seege: and this will be perceiued sensibly by the tenth day of the cure. The leaues also be diureticall, and a decoction made with them, prouokes vrine. The samelike is good for those that cannot draw their wind but sitting with their body vpright. Being drunk in like manner, they help women who are in fore trauell, to speedie deliuerance, and fetch away the after-birth.

¶ Some take it
for *Securidaca*,
i. *Axfitch*.

As touching **Pelecinum*, it groweth as I said before among corn, branching thick, and garnished with leaues like vnto the cich peafe. It beareth feed in certain cods, which crook in manner of little horns, and those be four or five in number together. The said feed resembleth Gith, so far as euer I could see, and is bitter, but good for the stomack: one of the ingredients that goe into antidotes and preseruatiues against poison.

Polygala reacheth vp with a stem a span high, in the top wherof it beareth leaues resembling the Lentils, of an astringent tast, which being drunk, causeth nources to haue plenty of milk in their breasts.

Poterion, or as some call it, Phrynon or Neurada, brancheth and spreadeth much: armed it is with sharp prickes, and besides, full of a kind of thicke down: the leaues be small and round: the branches slender, long, lofte, and pliable: the floure in form long, of a graffe green color. The seed is of no vse in Physick, but of a quick and sharp taste, odoriferous also, and pleafant to the smell. It is found growing as well in watery places, as also vpon little hills. Two or three roots it hath, which run down two cubits deep into the ground, full of cords or sinews, white, and of a firm and hard substance. About Autumne they vse to dig round about it, hauing before cut the plant it selfe above ground, which yeeldeth thereby a iuice like vnto a gum. The root is (by report) of wonderfull operation in healing wounds, and especially of sinews cut in sunder, if it be applied thereto in a liniment. Also the decoction thereof drunke with honey in manner of a syrupe, helpeth the feeblenesse and diffolution of the sinewes; and namely, when they bee wounded and cur.

Phalangites by some is called Phalangion, by others Leucanthemon, or, as I find in some copies, Leucacantha. Little branches it putteth forth, neuer fewer than twaine, and thofe tending directly a contrary way. The floures white, fashioned like the red Lilly : the seed blacke, broad, and flat, shaped after the manner of halfe a Lentill, but much leffe : and the root is of a greenish colour. The leafe, floure, and seed of this herbe is a singular remedie against the venomous sting of scorpions, the spiders Phalangia, and serpents ; also for the wringing torments of the belly.

As for Phyteuma, somewhat els I haue to do rather than to describe it, confidering there is no vse of it but in amatorious medicines to procure womens loue.

There is an herbe called by the Greekes Phyllon, growing vpon stony mountaines standing much vpon a rocke. The female of this kinde is of a deepe greene colour, the stem is slender, the root small, the seed round, and like vnto that of Poppie. This hearbe serueth for the getting and conceiuing either of boyes or girles, according as the male or the female is vsed: which differ only in seed or fruit, which in the male resembleth an oliue that is new come forth and

A and biginneth only to shew. But both of them are for the said purpose to be drunke in wine.

Phellandriõ groweth in moory grounds, and in leafe commeth nere vnto garden Parsley : the seed thereof is good to be drunke for the stone, and the infirmities incident to the bladder.

As for Phalaris, it hath a long slender stem like vnto a reed, in the top whereof it beareth a floure bending downward; and the seed resembleth that of Sefamà: and this alſo breaketh the ſtone, if it be drunke in wine or vineger, or otherwiſe with milk and honey. The ſame cureth the accidents of the bladder.

Polyrrhizon is leafed like unto the Myrtle, and hath many roots, which being bruised, are given in wine againſt the poiſon of ſerpents; not only if men but alſo if fourfooted beaſts be ſtung by them.

* *Proserpinaca* likewise, being otherwise a common herb, is counted a soueraigne remedy against scorpions: the same stamped and incorporat with fish-pickle and oile, is (by report) a singular medicine against the prick of scorpions.ouer and besides, it is said, that if it be but held vnder the tongue, it refresheth those who be ouertruelled or any waies wearied, so as they haue lost their speech with very faintnesse: but in case it be swallowed downe the throat, it procureth vomit, which alwaies is good and wholsome for the Patient.

As touching Rhacomia, it is brought vnto vs out of those countries which are beyond the kingdom of Pontus: a root it is much resembling the black Costus, but that it is smaller and somewhat redder; also without any smell; hot at the tongues end and astringent: being panned, it is of a wine colour inclining to saffron: a liniment made of this root, doth mitigate all im-

About the towne Ariminum there groweth an herb commonly knowne by the name of *Refeda*: it refolucth and discuffeth all impoſtumes: it reduceth alſo into temperature any inflammation. But they that uſe to cure with this herb, muſt when they lay it to the place, ſay withall theſe words following, *Refeda, morbos Refeda, ciſſe ciſſe, quis hic pullos egerit? Radices nec caput nec pedes habeant.* That is to ſay, *Refeda, cauſe theſe maladies to ceaſe: knoweſt thou, knoweſt thou, who haſt drinen theſe pullets here? Let the roots haue neither head nor foot.* This charm (I ſay) they muſt pronounce three times ouer, and ſpit vpon the ground as often.

To conclude, Stoechas groweth in those Islands only which carry that name and be called Stoechades: an odoriferous herb it is, bearing leaues like vnto hyssop, and is bitter in tast: taken in drink, it procureth womens moneths, and doth mitigat the pains of the brest. Also it is one of the species or ingredients entring into the preferuatiue compositions called Antidotes.

that their seeds be nothing to effectually, if incision were made in the roots for to draw juice out of them, before the said seed is fully ripe.

Furthermore, this is known & found by experience, that the ordinary use of all simples doth alter their properties and diminish their strength, in so much, as who soeuer is daily accustomed vnto them, shall not find when need requires, their vertue powerfull at all, either to do good or to work harme, as others shall who seldome or neuer were acquainted with them.

Ouer and besides, all herbes be more forcible in their operations, which grow in cold parts, exposed to the Northeast winds, likewise in dry places, than in the contrary.

Also there is no small difference to be considered betwene nation and nation: for, as I haue heard them say who are of good credit, as touching worms and such like vermin, the people of Egypt, Arabia, Syria, and Cilicia, be troubled & infested with them: whereas contrariwise, some Græcians & Phrygians haue none at all breeding among them. But lesse maruel there is of that considering how among the Thebans and Boeotians (who confine vpon Attica) such vermine is rife and common; and yet the Athenians are not giuen at all to ingender and breed them: the speculation whereof, carrieth me away again vnto a new discourse of liuing creatures, and their natures, and namely, to fetch from thence the medicines which Nature hath imprinted in them, of greater prooffe and certainty than any other for the remedy of all diseases. Certes, this great Mother of all things, entended not that any liuing creature should serue either to feed it selfe only, or to be food for to satisfie others; but her will was and she thought it good, to insert and ingraffe in their inward bowels, wholsom medicines for mans health, to counterpoise those medicinale vertues which she had ingrauen and bestowed vpon those furd and sencelesse herbes: nay her prouidence was such, that the soueraigne and excellent means for maintenance of our life, should be had from those creatures which are indued with life; the contemplation of which diuine mysterie, surpasseth all others, and is most admirable.



THE TWENTY EIGHTH BOOK OF THE HISTORIE OF NATURE, WRITTEN BY C. PLINIUS SECVNDVS.

CHAP. I.

The medicinale vertues of liuing creatures.



Having discovered as well all those things which are ingendred between Heauen and Earth, as also their natures; there remained nothing for me to discourse of, saue only the Minerals digged out of the ground; but that this late Treatise of mine, as touching the medicinale properties of Herbs, Trees, and other plants draweth me quite aside from my purpose, and haleth me back againe, to consider the foresaid liuing creatures themselves (euen the subiect matter of Physicke) in regard of greater meanes found out euen in them, to aduance Physicke and cure diseases. For to say a truth, since I haue described and pourtraied both Herbes and Floures, since I haue discovered many other things, rare and difficult to be found out; should I conceale such meanes for the health of man, as are to be found in man himselfe? or should I suppress other kind of remedies which are to be had from creatures liuing amongst vs, as wee doe, if they may benefice vs? especially seeing that our very life is no better than torment and miserie, vnlesse

A we be free from paine and sicknesse? No verily; and far be it from me that I should so do. But on the contrary side, I will do my best indeuor to performe and finish this task also; how long and tedious soeuer it may seem to be: for my full intent and resolution is, so I may benefite posteritie and doe good to the common life of man, the lesse to respect the pleasing of fine eares, or to expect thanks from any person. And to bring this my purpose about, I mean to search into the cuities of forreine countries, yea and to lay abroad the rites and fashions of barbarous nations, referring the readers who shall make scruple to beleue my words, vnto those Authors whom I alledge for my warrant. And yet herein, this care I haue euer had, To make choice in my reports of such things as haue bin held in manner adjudged true, by a generall consent & approbation of all writers; as conuening to stand more vpon the choice of substance, than the variety and plenty of matter. But before I enter into this argument, I thinke it very necessary to aduertise the Reader thus much, That whatsoever I haue heretofore written of liuing creatures, concerneth the instinct of Nature wherewith they be indued, and certain simples whereof they haue giuen vs the knowledge (for surely, as much good haue they done vnto vs by the medicinale herbes by them found out, as possibly they can by the remedies which themselves do afford from their own bodies:) But now it remaineth to shew simply the medicinale & helpful properties in themselves, which notwithstanding in the former treatise were not altogether left out and passed ouer. And therefore this my present discourse of those creatures, howsoeuer it is in nature different, yet it dependeth of the other. Begin then I will at Man himselfe, to see what Physicke there may be found in him to help his neighbor. In which first entrance of mine, there presenteth it selfe vnto mine eie, one object that troubleth and offendeth my mind exceeding much: for now adiaies you shall see them that are subiect to the falling euil, for to drink the very blood of offenders and sword-plaies as out of liuing cups: a thing, that when we behold within the same shew-place, euen the tygres, lyons, and other wild beasts to do, we haue it in horreur as a most fearfull and odious spectacle. And these monstrous minded persons are of opinion, That the said blood forsooth is most effectually for the cure of that disease, if they may sucke it breathing warme out of the man himselfe; if they may set their mouth (I say close to the veine, to draw thereby the very heart blood, life and all: how vnnaturall soeuer otherwise it beholden for a man to put his lips so much as to the wounds of wild beasts, for to drinke their blood: nay, there be others that lay for the marrow-bones, the very braine also of young infants, and neuer make strageto find some good meat and medicine therein. Ye shall find moreover among the Greeke writers not a few, who haue deciphered distinctly the seuerall tastes as well of euery inward part, as outward member of mans body, and so neare they haue gone, that they left not out the paring of the very nailes, but they could pick out of them some fine Physicke: as if health consisted in this, That a man should become as bloudie as a sauage beast; or that be counted a remedy, which indeed is cause of a mischiese and malady. And wel deserue such blood-suckers and cruell leeches to be frustrat of their cure, and thereby to worke their owne bane and destruction; for if it be held vnlawfull and abhominable to prie and look into the entrails and bowels of a mans body, what is it then to chew and eat them? But what monster was hee, who first broched this geare, and deuised such accursed drugs! Ah wicked wretch, the inuenter and artificer of those monstrosities; thou that hast ouerthrowne all law of humanity; for with thee will I haue to do, against thee will I whet my tongue and turne the edge of my stile, who first didst bring vp this brutish leech-craft, for no other purpose but to be spoken of another day, and that the world might neuer forget thy wicked inuentions. What direction had he who thus began to deuoure mans body lim by lim: nay, what conjecture or guesse moued him so to do? what might the original and foundation be, whereupon this diuelish Physicke was grounded? what should he be that bare men in hand, and would persuaide the world, That the thing which is used as a poison in witchcraft and forcerie, should auaille more to the health of man, than other knowne and approued remedies? Set case that some barbarous people vsed so to do: say that strangenations and farremoued from all ciuility, had these manners among them, must the Greekes take vp those fashions also, yea and credit them so much, as to reduce them into a method, amongst other their goodly Arts? And yet see what *Democritus* one of them haue done? there be extant at this day books of his inditing and penning, wherein you shall reade, That the scul of a wicked malefactor, is in some cases better than that of an honest person; and in other, That of a friend and guest, preferred before a stranger. As for *Apollonius*, another of that brood, hee hath written,

date, when as a certain chariot with foure horses, made of clay, and prepared for to be set vpon the iouuer or lantern of the said temple, chanced as it lay baking in the furnace, to grow into an extraordinary bignesse. For the forsaide Wife men of Tuscan being asked what the said prodigy should betoken, praetised the like, as *Olenus* did: but the Romans being wise & wary in their words, faued and retained the same fortune still for the behoofe of Rome, which was presaged vnto them by that happy foretoken. These examples may suffice to shew & prouoe evidently, that the vertues and significations of these signes and presages do lie in our own power: and are no otherwise of force and effect, but according as euery one of them is so taken * and accepted. True it is, and held for an vndoubted principle in the Augures discipline & learning, That neither cursed execrations, ominous and vnlucky birds, nor any other preface by their flight singing and feeding, can touch those persons who take no heed of them, and do protest plainly, that they regard them not, what businessse soeuer they go about and be entering into: a greater gift than which, and testimony of the diuine indulgence and fauor of the gods to vs, we cannot haue, thus to subiect their secrets to our puissance. Moreover, in the laws and ordinances of the 12 tables here at Rome, are not in one place these very words to be found, *Qui fruges occentassit*, [i. who soeuer shall enchant or fore-speak any corne or fruits of the earth:] and in another place, *Qui malum carmen incantassit*, [i. What person soeuer vseth pernicious charmes to the hurt or mischief of any creature?] Ouer and besides, *Verrinus Flaccus* doth affirm vpon the credit of certain Authors which he alleadgeth and beleueth, That the first thing which the antient Romans were wont to doe at the siege and assault of any towne or city, was by their priests to conjure and call forth that god or goddesse which was the patron or patronesse therof, and withal to promise vnto the said god or goddesse, either the same place againe, or else a greater and more spacious feat; yea, and the like diuine worship, or better, among the Romanes: and euen at this day our Pontifices or Bishops haue the charge of this sacred ceremony amongst other functions belonging to their ministry. And hereupon well known it is, that for this cause and nothing else, it was neuer divulged abroad, what god was the protector and patron of Rome city, for feare least some of our enemies should assay to coniure him forth, and deale by vs as we do by them. Furthermore, who is there that is not afraid of all maledictions and cursed execrations; and especially when the * names of the infernall fiends or vnluckie foules are vsed in such bannings? For feare likewise of some harme, see we not that it is an vsuall thing to * crush and break both egge and fish shels, so soon as euer the meat is supped and eaten out of them; or els to bore the same through with a spoone stele or bodkin? From hence came those amatorious cydyls and eclogues of *Theocritus* among Greek Poets, of *Catullus* and *Virgil* among vs, full of amorous charmes, in imitation of such exorcismes and coniurations indeed. I assure you many folke there be of this beleefe, That by certaine spells and words, in manner of charmes, all the pots and vessels of earth baking in a furnace, may be cracked and broken, without touching them at all. And there are not a few who are perswaded for certaine, that euen the very serpents as they may be burst by incantment, so they can vnwitch themselves: and that as brutish otherwise and earthly as they be, yet in this one thing they haue a quicke fence and vnderstanding, in so much, as at the charms of the Marsians they will shrink from them and draw in their bodies round into a knot, though it were in the night season when they lie asleepe. Some there be also that when a skare-fire hath taken an house, write certaine * words vpon the walls, and thereby limit and confine the fire, that it shall go no farther. Certes, I am not able to say, whether strange, forraigne, and ineffable words hard to be pronounced, are more auailable to the effecting of these incredible things, or our Latin words, comming out at a venture vnlooked for and spoken at random: which mult needs seem ridiculous in our judgement, seeing that the spir it and mind of man, expecteth alwaies some great and mighty matter in these coniurations and exorcismes, which may carry a majesty therewith to incline and moue the gods to mercy and fauour, or rather indeed to command their heauenly power perforce. But to proceed, *Homer* the Poet hath written, that prince * *Polyxenes* being wounded in the thigh, stanchd the blood with a charme. And *Theophrastus* testifieth, that there be proper spells to cure the Sciatica. *Cato* hath left in writing, that there is a special charm for dislocations, whereby any bone put out of ioint may be set again. And *M. Varro* reporteth the like vertue of certain good words for the gout. As for *Cesar* the Dictator, it is commonly said of him, that hauing bene once endangered with the fall or ouerthrow of his coach wherein he rode, would neuer afterwards ride in coach againe, vnlesse so soone as euer hee had

* Whereupon it was thought materiall to speake in this manner Accipio omen. For otherwise it auailed not.

* As in saying thus, The Devil will take thee, or, the Rauens peck out thine eyes, or I had rather see thee pie pekt: and such like. * Because fearwards no witches might prick them with a needle in the name and behaile of those whom they would hurt and mischief, according to the praetise of pricking the images of any person in wax: vsed in the witchcraft of these daies. * That is to say, *Ayle* vsed, out of *Afranius*, as *Pestus* noteth, which in the old Tuscan language signifieth *Auertere ignem*, i. Put backe the fire. * or rather the sonnes of *Auolus* in his *Odysseia*.

A had taken his place, and before that he set forward vpon his way, he had pronounced a certaine charm that he had in store: and perswaded he was, that if he said it ouer three times together, he should come by no mischance in his journey, but trauele in security. A thing that I know many now adaies to praetise ordinarily as well as he. But for farther prooffe and confirmation of this opinion, I report me to euery mans conscience and knowledge, to that (I say) which there is not one but knoweth: What is the cause I pray you, that the * first day of euery yeare we salute one another for luck sake, with wishing a good new yere? What is the reason, tel me, that in all our publick processions and generall solemnities euery fifth yeare for the health and good estate of the city, they * made choice of such persons for to lead the beasts appointed to sacrifice, whose * names were good and fortunate: or how commeth it about, that for to preuent or diuert witchcraft and forcery, we obserue a peculiar adoration, and inuocat vpon the Greekish [goddesse of vengeance] *Nemesis*, in which regard onely, we haue her statue or image set vp in the Capitoll, notwithstanding we know not yet what name in Latine to giue her? How is it, that in making mention of those that be dead, we speake with reuerence and protest that we haue no meaning to disquiet their ghosts thereby, or to say ought preiudiciall to their good name and memorie? If there be nothing in words, how hapneth it, I would faine know, that we haue such an opinion of odd numbers, beleeuing that they be more effectuall in all things than the euen? a matter I may tell you of great consequence, if we do but obserue the criticall daies in feuers. Also in the gathering of our first fruits, be they Pears, Apples, Figs, &c. wherefore vs we to say, These be old, God send vs new? What moueth vs to wish health and say, God helpe, or blesse, when one sneezeth? for euen *Tiberius Caesar*, who otherwise was known for a grim fir, and the most vnfoliable and melancholick man in the world, required in that manner to be salued and wished well vnto, when soeuer he sneezed, though he were mounted in his chariot. And some there be who in this case do ceremoniously salute the party by name, and thinke there is a great point of religion lies in that. Moreover, is not this an opinion generally receiued, That when our ears do glow and tingle, some there be that in our absence doe talke of vs! *Attalus* auoucheth for a certainty, that if a man chance to espie a scorpion, and do no more but say this one word * *Duo* [i. two] the serpent wil bestil & quiet, and neuer shoot forth his sting. And now seeing by occasion of mentioning a scorpion, I am put in mind of Africk, you shal vnderstand thus much, that throughout all that country there is not one goeth about to do any thing, but before he begins he saith this word * *Africa*. Africk. As for other nations, in euery enterprife that men take in hand, they vse the name of their gods, & pray ordinarily, that it would please them to giue a grace and blessing to their attempts. As for this ceremony, namely, when the table is spread and furnished with viands, to lay a ring from the finger vpon it, we see it commonly & orderly praetised; and that it is of force to put by many scruples and religious doubts it is very euident. You shall see some men to take the spittle out of their mouths, and conuey it with their fingers end behind the ear, for to reioice the heart & driue away all pensiuensse and melancholick fanies that trouble the mind. And to bend or bow down the thumbs when we giue assent vnto a thing, or do fauor any person, is so vsuall, that it is growne into a prouerbiall speech, to bid a man put down his thumb in token of approbation. In adoring the gods and doing reuerence to their images, wee vse to

B * kisse our right hand and turne about with our whole body: in which gesture * the French obserue to turne toward the left hand; and they beleue that they shew more deuotion in so doing. As touching the maner of worshipping and adoring flashes of lightening, all nations with one accord and conformity do it with a kind of * whistling or chirping with the lips. If there be mention made of scarsefires at the table as we sit at meat, we hold it ominous, but we turn away the perillous presage thereof, by spilling and casting water vnder the bourd. When one riseth from his meat and is ready to depart, if they of the house go in hand presently for to sweep the floore and make all cleane: as also to take away dishes, trenchers, &c. vpon the bourd; or to remoue the cupboard of plate, & liuery table, whiles one of the guests is a drinking, are thought to be most vnfortunat tokens, and to presage much harm. *Seruius Sulpitius* a principal person of our city, hath written a treatise of this argument, wherein he giueth a reason why we should not leaue or shift our trenchers at euery course or change of dishes; for in those daies there were no more allowed than there sat guests at the tables, and those were serued but once for all. If one chance to sneeze after repast, the order is to call for a dish of meat and a trencher againe to be set vpon the bourd: and in case he taste not of somewhat afterward, it is thought a most fearefull and

* i. The first of March.

* *Dies causa*, i. pro forma: As *Valegius* *Lucius*, *Salvius* *Statorius*, &c. which are significant, and import by the very letter, some happines and prosperity.

* Which fastidious was afterwards taken vp in doing reuerence to princes and great persons, whereas other nations obserued to turne to the right hand, as appeareth by *Plautus*, *Quam me veris nescio*. *Si des saluas*, *Dexterosum censeo*, i. *proprium*, i. setting your lips close together, and drawing the breath inward, as our manner is in playing with a tame Sparrow, or cheating vp and making much of an horse.

* Of the special providence of God: I have speake like himselfe, a heaven with himselfe.

* Fame labor est.

* Which answer to our R and A.

and cursed presage on this behalf: like as to sit at the table and eat nothing at all. * See how ceremonious those men were, and what precise ordinances they instituted, who were of beleeve, that in all our affaires and actions, and at all times, the diuine power of God was present: and that by these means they left them pacified for all our sins and vices. Neither is there an end here: for ouer and besides it hath been marked, that many times all the table is hushed, and there is not a word heard from one end to the other: but this is noted neuer to happen but when the guests make a just euen number. But what doth this silence presage? Surely, euery one of them * shall be in danger to lose or impaire his credit, good name, and reputation. Moreouer, if a peece of meat chanced to fall out of the hand down to the floore, it was taken vp and deliuered vpon the boord again, where it passed from one to another, and went through the table: but in any wise they were forbidden to blow thereupon, for to cense it from the dust or filth that it caught. Furthermore, they haue proceeded thus far, as to gather presages from such things as happen just at the time whiles one either speaketh or thinketh of the same. But of all others, this was counted a most execrable token, in case it chanced that the Pontific or high Priest sitting at the table *pro forma*, and for order sake, at any solemne feast or sacrifice, let fall a morcel of meat: but if the same were laid vpon the boord again, and afterwards burnt and sacrificed to the familiar gods of the house *Lares*, it was thought a sufficient expiatory satisfaction. Semblably, men are of opinion, That if any medicines purgative or others, fortune to be set vpon a table before they be giuen to the patient for to drink, they will do no good at all, but lose their operation. Also there is a superstitious ceremony in paring the nailes of the fingers, during the market daies held at Rome, with this charge, that the party hold his tongue and be silent all the while, & begin at the fore-finger, and this forsooth concerns the mony of many a man. Likewise, as great a matter as that, lieth in stroking or handling the haire of the head, either on the 17 day after the change of the Moon, or the 29: for a special means this is to keep the haire on, which is giuen to fall, as also to ease the head-ach. Moreouer, the peasants in the country obserue this custome in many manners and farnies of Italy, to forbid their wiues and women to spin as they walke vp and downe abroad in the street or any common way of passage, or to carry their rockes and distaues vndized or bare; for this opinion they haue, that in so doing they preiudice the hope of al fruits, and the corne especially growing in the field for that yeare. Not long since, *M. Seruilius Nonianus*, (who in his time was a principal citizen of Rome) to prevent the blearednesse of his eies which he feared, before that either any man else foretold him of that disease, or himselfe once named it, took a little peece of paper, and wrote therein these two capital Greek letters P and A, which he lapped round & fast tied with a linnen thred, and so wore it hanging at a lace about his neck vnder his throat. *Mutianus* (who had bin thrice Consull of Rome) obserued the same effect by wearing a flie aliue within a little rag of white fine linnen cloth: and both of them did highly commend these medicines of theirs; reporting, that by those meanes they were free from bleared eies. Finally, we read of certain charms and spels against storms of hail: against sundry sorts of diseases, and namely for any part that is burnt or scalded, and verily some of them haue been proued by experience to be effectuell. But for mine own part abashed I am and ashamed to put them downe in writing, considering how diuersly men are affected in minde. And therefore to conclude this matter, I leaue euery man to himselfe to giue credit or otherwise vnto them at his owne pleasure and discretion.

CHAP. III.

¶ Remedies proceeding from man, for the cure of diseases.

IN my former Treatise as touching strange and wonderfull nations, I spake of certaine races of men which were of a monstrous nature, and carried a venomous regard and looke in their very eies: besides many other properties of beasts, which here to repeat were needlesse. Howbeit, in this place I think it not amisse to note, that some people there be whose bodies be from top to toe all medicinable and wholesome to others. As for example, the men of those families which do terrifie serpents, and driue them away with their very presence: who also are of this nature, that they be able to cure and ease such as are stung already either by touching only, or else by a medicinable sucking of the place: of which kind are the *Psylli* and *Marisi*: those also in the Island * *Cyprus*, whom they call *Ophuges*: and of this race and house there came an Embassadour

A sadour out of the said Island, whose name was * *Exagon*, who by the commandement of the Consul was put into a great tun or pipe wherein were many serpents, for to make an experiment and trial of the truth: and in very deed the said serpents licked his body in all parts gently with their tongues, as if they had bin little dogs, to the great wonder of them who beheld the manner of it. A man shall know those of this family (if any of them remain at this day) by this signe, that they breath a strong and stinking sent from them, especially in the Spring season. Now, these people beforenamed had not only a gift to cure folk with their spittle, but their very sweat also had a medicinable vertue against the sting of serpents. For as touching those men who are borne and bred in *Tentyrus* (an Island lying within the riuier *Nilus*) so terrible they be vnto the *Crocodiles*, that they wil not abide so much as their voice, but flie from them so soon as they heare it. Moreouer, it is knowne for certaine, that all the sort of these people, who haue their bodies thus priuiledged by that secret antipathic in nature between them & serpents, are able to ease those who are stung, if they come but come in place where they be: like as a wound will be more angry and sore, if they come neare who at any time before haue been hurt by sting of serpent or tooth of mad dog: such also carry about with them in their bodies so venomous a quality, that their onely presence is enough to marre the eggs that a brood-hen sits vpon, and make them all addle, yea, and to driue ewes and other cattell to cast their yong before the time: such a virulent property remaineth still behind in their bodies who haue bin once stung and bitten, that notwithstanding they be cured thereof, yet venomous they are now and hurtfull to others, who beforetime were poisoned themselves. But the only way to remedy this inconuenience, is to cause them to wash their hands before they enter into the roome where the patients lie, and with the same water to besprinkle and wash them who are to be cured. Againe, this is to be obserued, that who soeuer at any time haue bin pricked with a scorpion, shall neuer afterwards be stung by hornets, wasps, or bees. A strange thing this is no doubt, howbeit, no great wonder vnto them who know, that a garment or cloth which had bin vsed at funerals, wil neuer be afterwards morth eaten: and how that serpents hardly can be plucked out of their holes, vnlesse it be by the left hand.

CHAP. IIII.

¶ Of certaine Sorceries: and the properties of a mans spittle. Also against Magicians.

THE inuentions of *Pithagoras* as touching numbers, beare a great stroke in these matters, and lightly misse not: but principally in this, That the said Philosopher would giue judgement by the vowels contained in the proper name of any person, concerning their fortunes, for in case the vowels were in number odde, he pronounced, that if the party euer proued lame of a lim, lost an eie, or met with any such like accidents, the same should happen vpon the right side of the body: but contrariwise, if the number of vowels were euen, then these infirmities should befall the left side. Furthermore, it is commonly said, that if one take a stone, dart, or instrument of shot, wherewith a man hath killed these three liuing creatures, a man, a wilde Bore, and a Bear, one after another, & that with one single stroke to euery one of them, and fling the same cleane ouer an house where there is a woman in hard trauell of child-birth, so as it light on the other side without touching any part thereof, the woman shall presently be deliueed. More reason there is that a * light jauelin or Pertuisan should do this feat, which had bin drawn forth of a mans body, so as it neuer touched the ground after; for do but bring this murdering jauelin into the place where a woman is in labor, it wil forthwith procure her deliuerance. *Orpheus* and *Archelaus* do write much after the same matter of arrows pulled out of men bodies, namely, that if care be had that they touch not the earth, & then be laid vnder the bed where man or woman lieth, they wil cause the parties to be enamored vpon them that bestowed the said arrows there: and these authors report moreouer, that the venison of any wild beast killed with the same weapon which was the death of a man before, is singular to cure the falling sicknesse.

As some men there be whose bodies all throughout be medicinable, so there be others who haue certain parts onely of the same vertue, according as I haue written already concerning the thumbe of king *Pyrrhus*. In the citie *Elis* also the inhabitants were wont to shew as a wonderfull monument the rib of *Pelops*, which they auouched to be all of Iuory. And euen at this day,

* *Delitark* has been which also was called *Calliaris*.

many there are who make great scruple to shauē or clip the haire growing in any molle or wert G
vpon the face. As touching the fasting spittle specially of man or woman, I haue shewed already how it is a soueraigne preseruatiue against the poison of serpents. But that is not all: for in
mny other cases it is found by daily experience to be of great operation, and to worke effectually. For first and formost, if we see any surprised with the falling sicknesse, we spit vpon them,
and by that means we are persuaded, that we our selues auoid the contagion of the said disease.
Item, an ordinary thing it is with vs to put by the danger of witch-craft, by spitting in the eyes of
a witch: so do we also, when we meet with one that limperth, and is lame of the right leg. Likewise
when we craue pardon of the gods for some audacious and presumptuous praier that wee
make, we vse to spit euen into our bosoms. Semblably, for to fortifie the operation of any medicines,
the manner is to pronounce withal a charm or exorcisme three times ouer, and to spit vpon
the ground as often, and so we doubt not but it will do the cure and not faile. Also when we
perceiue a fellon or such like vncom fore a breeding, the first thing that we doe, is to marke it
three times with our fasting spittle. I will tell you of a strange effect, and whereof it is no hard
matter ywis to make the triall. If one man hath hurt another, either by reaching him a blow
neare at hand, or by letting flie somewhat at him farther off, & repect him when he hath so done;
let him presently spit iust in the midst of the palm of that hand which gaue the stroke, the party
immediatly that was smitten, shall be eased from pain, and take no harm thereby. And verily
we find this to be so, by experiments oftentimes made vpon the bodies of fourfooted beasts: for
let them be swaied in the back, orhipped by some stripe giuen them with stone or cudgel, do no
more then but spit into that hand which did the deed, & streightwaies they will goe vpright again
vpon all foure. Contrariwise some there be, who before they either strike or discharge any
thing from them against another, after the same manner first spit into the bal of their hands, and
so they make account to do a greater displeasure, & to hurt more dangerously. But this we may
assure our selues, that there is not a better thing in the world for to kil tettare, ringworms, & the
foule lepric, than to rub and wet them continually with our owne fasting spittle: likewise to anoint
therewith euery morning our eies, keepeth them from being bleared: also cankerous sores
are cured with the roor of Sowbread, which we call the earth-apple, if the same be wrought into
a salue with our fasting spittle. Moreover, if a man haue a cricke and ach in the nape of his neck,
let him take the spittle of a man that is fasting, some in his right hand, and there with anoint the
ham of his right leg, and the rest with his left, and do the like to the left leg: and thereupon hee
shall find ease. If an earwig or such like vermin be gotten into the eare, make no more ado but
spit into the same, and it will come forth anon. Among countercharmes, & preseruatiues against
forcerie, these be reckoned, namely, that a man spit vpon his own vrine as soon as he hath deliue-
red it out of his body, likewise to spit into the shooe that serueth his right foot, before he put it
on in a morning, also whensoever he goeth ouer or passe by a place where sometime he was in
danger, to remember that he spit vpon it. *Marcion* of Smyrna, who wrote a Treatise of the vertues
and effects of simples, reporteth, that the Scolopendres of the sea will burst in sunder if one spit
vpon them: and so will hedge toads and other venomous frogs. *Ophilius* writeth, that spittle wil
do the like by serpents, if one spit into their mouths as they gape. As for the learned *Salpe*, hee
saith, that if one perceiue any member or part of the body be asleep and benumbed, there is not
a better thing to recouer the sence thereof, than to spit into the bosome, or to touch the vpper
eieliids with fasting spittle. Now, if we beleue these things to be true, we may as well giue credit
to all that which followeth. Wee see it is an ordinary thing, that if a stranger come in place
where a babe lieth in the cradle, or look vpon the said infant whiles it is asleep, the nource vseth
to spit thrice: although I am not ignorant that there is a religious opinion of this fillable * Mu,
that it is able to defend such yong sucklings, as also of the foolish puppet *Fascinus*, both which
are of power to put back any witchcraft from them, and returne the mischief vpon the eie-biting
witch. And since I am light vpon this name, I must let you vnderstand that this *Fascinus* is
holden to be a god forsooth, the gardian & keeper not of infants only, but of great captains and
braue generals of the field; who hath diuine seruice done to him at Rome among other gods,
and that by the vestall Nuns, for the manner was to hang this ridiculous puppet vnder the cha-
riots of noble victors riding in triumph, not onely to defend them by a medicinable power a-
gainst the venome of enuious and spightfull tongues, but also to returne all enuie vpon them, &
bid as it were to take it among them: the like vertue is in the tongue, beseeching fortune to bee

* *Mu* in *Plutarch*,
As *Turnebius*
found it in an
old copie, And
considering
the fooleries
both before &
after mentio-
ned, this will
seem well
ynough with
such stuff: &
namely their
Fascinus in the
old time
(which was
turpicalares,
quale membris
vile) hang-
ing about
childrens
necks to with-
stand the mis-
chiefe that
might come
by the eyes,
called in Latin
Fascinum also:
for a witch
would not
willingly fetter
her eye long
vpon such a
base and fil-
thie object.

A propitious and fauorable vnto them: Fortune (I say) who ordinarily commeth after to whip and
punish them, as the scourge and tormentresse of glory and honour.ouer and besides, the tooth
of a man, especially when he is mad, is reckoned to be as dangerous and pernicious a biting as
any other. The excrement found in mans ears, called ear wax, is thought in this case to be soue-
raigne: and let no man maruell thereof, considering how it will heale the sting of Scorpions and
serpents also, if it be applied to the place presently: but it is the better and more effectually, if it
be taken out of the Patients own ears, who is thus wounded: and in that sort it healeth also the
whitflaws and impostumations that breed about the naile roors. Moreover, take a mans or wo-
mans tooth, and stamp it into powder, it is thought good for the sting of a serpent. The haire of
yong boy-children which is first clipped off, is held to be a singular remedy for to assuage the
painful fits of the gout, if the same be tied fast about the foot that is grieved: & generally their
haire, so long as they be vnder 14 yeres of age, easeth the said anguish, if it be applied vnto the
place. Likewise, the hair of a mans head cureth the biting of a mad dog, if it be laid to the place
with vineger: it healeth also the wounds in the head, applied with oile or wine. But if it were
plucked from his head whiles he hangeth vpon the gallows, then is it soueraign for the quartan
ague: but we may chuse whether we will beleue it or no. Certainly the haire of the head burnt
to ashes, is known to be very good for a cancerous vlcere. If a woman take the first tooth that a
yong child cast, set it in a bracelet, and so weare it continually about her wrist, it will preferre
her from the pains & grieuances of her matrice and naturall parts. Tie the great Toe and that
which is next vnto it together, you shall see how it will allay any risings & tumors in the share.
Bind gently the two middle fingers of the right hand, with a linnen thred, marke of what force
this remedy is to repress the rheum falling into the eies, and how it will keep them from being
bleared. If all be true that is commonly said, the stone that one hath voided & thrust out of the
body, easeth all others that be pained with the stone, if the same be kept fast tied to the share:
also it doth mitiga the grieue of the liuer, and procureth speedy deliuerance to women in tra-
uel with child. *Granius* affirmed moreover, that in all these cases it would do the better, if one
were cut for it, & that it were taken forth of the bladder by way of incision. If a woman be neere
her time, and looks euery day to fall to labour & cry out, let the man come by whom she is with
child, and after he hath vngirt himselfe, gird her about the middle with his own girdle, and vn-
loose the same againe, saying withall, this charme, *I tied the knot, and I will vndo it againe*, & there-
with go his waies, she shall soone after fall to her businesse and haue more speedy deliuerance.
D *Orpheus* and *Archeleus* both, do affirme, That if the squinancy be anointed with man or womans
bloud (it skilleth not out of what vein or part of the body it issued) it is an excellent remedy for
that disease. The like effect it hath, if their mouthes be rubbed with the said bloud, who being
ouertaken with the epilepsie, arealne down; for immediatly thereupon they will rise and stand
vpon their feet. Some write, That if the great toes be pricked vntill they bleed againe, the drops
that come forth worke the like effect in the falling sicknesse, so that the face of the Patient be
sprinkled or besmeared therewith: or if a maiden touch the parties face that lieth in a fit of the
said disease, with her bare thumbe or great toe, he shall come againe to himselfe and recouer. By
which experiment Physicians going by coniecture, are of opinion, That such persons subiect to
E that disease, should feed of the flesh of * such beasts as neuer were with yong. *Aschines*, a Phy-
sician of Athens, was wont to cure squinies, the inflammations of the amygdals, the infirmities
of the vula, and all cancerous sores, with the ashes of a man or womans body burnt: and this
medicine he called Botryon.

Many maladies there be, that goe away the first time that either a man hath carnall know-
ledge of a woman, or that a maid seeth her monthly sicknesse: but if they end not at such a time,
commonly they proue chronicke diseases and continue a long time, and especially the falling
sicknesse. It is said moreover, That the company of a woman easeth them very much who are
stung with a scorpion: but women in the same case catch harme by that means. Some say also,
that if the eies be dipped three times in that water wherein a man or woman hath washed their
feet, they shall be troubled neither with blearednesse nor any other infirmity. And others there
be who affirm, that the wens called the Kings euil, the swelling kernels also behind the ears, and
the squinancy, are cured with touching the hands of them that haue died a violent & vntimely
death. Some stand not so much vpon that point, but say, That the backe of the hand of any one
that is dead (it skills not how nor by what means) if it touch the grieved part, wil work the like

effect, so that the dead party & the Patient be both of one sex. As for the tooth-ach, it is a common speech, That if one bite off a peece of some tree that hath been blasted, or smitten with lightning, prouided alwaies that he hold his hands behind him at his back in so doing, the said morfell or peece of wood will take away the toothach if it be laid vnto the tooth. Some there be who giue direction to take the perfume of a mans tooth burning in the fire, for to ease the tooth-ach of a man, and semblably of a womans tooth to help women in the same case. Others you shall haue, that prescribe to draw one of the eie-teeth, called in Latine Canini, out of the head of man or woman lying dead and not yet enterred, and to wear the same against the tooth-ach. It is a common speech, That the earth found in or about a man or womans scull, is a singular depilatory, and fetcheth away the haire of the eie-brows. As for the grasse or weed that grows therein (if any such may be found) it causeth the teeth to fall out of the head with chewing on-ly. As also that no vicer will spread farther but keep at a stay, if there be a circle drawne about it with the bone of a man or womans body. As touching the cure of a tertian ague, some there be who lade vp water out of 3 pits, as much out of one as another, and mingle all together; which done, they put the said water into a new earthen pot that neuer was occupied before, & begin to the Patient out of it, giuing the rest vnto him or her for to drink, when the fit commeth. But for the quartan ague, they get me a broken fragment of a wooden pin which held the sides & crosse peece of a paire of gallows together, wrap it within a lock of wool, and so hang it about the Patient: or els they take a peece of the halter or rope from the gallows, and vse it in like maner for the foresaid purpose: but wot ye what? when the patient is by this meanes rid of the feuer, the said parcel of wood or cord they vse to bury or bestow close in some hole within the ground, where the Sun may neuer shine on it, & then the access will neuer return more. See the toies & vanities of these Magicians! and yet these be not all; for they run on stil and say, that if one take a whetstone which hath serued a long time to whet knives & other edge tooles on, and lay the same vnder the boulder or pillow where one lieth that is ready to faint and giue vp the ghost vpon some indirect means, by forcery, witchcraft, or poisoning (but this must be done without the knowledge of the said party) you shall from the very mouth of the patient hear, what poison was giuen, in what place, & at what time; but who it was that gaue it, he or she shall not be able to name. Moreover, this is known for a truth, that if one be stricken speechlesse with lightning, and then the body be bent and turned toward the wounded place, the party shall recouer presently and speak again. Some there be, who to driue back and keep down the biles and botches that rise in the share, take the three or yearn out of the weauers loome which serue for the selvedge or list, making seuen or nine knots, and in the knitting of euery one of them name some widow or other, and then tie it fast about the grieved place. Also for to assuage the paine of any wound, they giue order, that the wounded party take a naile or some other thing that one hath troden vnder foot, and to weare the same tied about the neck, arme, or other part of the body. For to be rid of warts, some chuse a time to pluck them vp by the roots, when the Moone is twenty daies old at least, and then lay themselues along vpon their backs in some ordinary high way, looking fully vpon the Moone, and stretching their armes backward as farre as they can beyond their heads, and looke what they can catch hold of with their hands, therewith they rub the place. If one cut and pare an agnell or corn in any part of the body, obseruing a time when a star seemeth to shoot or fall, they say, it wil quickly weare away and be healed for euer. They would beare vs in hand, That if a man poure vinegar vpon the hooks and hindges of doors, and make a liniment with the durt that commeth of the rust thereof, and therewith annoint the forehead, it will assuage the head-ach. They promise also to do as much with a wyth or halter that a man is hanged withall vpon a gibbet, in case it be done about the temples of the head in manner of a frontall. Moreover, if any fish-bone stick in the throat and will not remoue, it shall incontinently goe downe, if the party ready thus to bee choked withall, put his feet into cold water: but if some peece of any other bones be ready to choke one, make no more adoe, but take some other little spils of the said bone and lay them vpon the head, you shall see it passe away and do no harm. If a peece of bread haue gone wrong or lie in the way readie to stop the breath, take the crumbs of the same loafe and put them into both the eares, you shall see it will soon be gon and do no further harme. Furthermore, the Grecks (who were giuen much to make money of euery thing, and namely of their publicke places of bodily exercise) made great account of certaine excrements that came from mens bodies, as singular remedies for many diseases: for the filth

that

A that was scraped & rubbed from the bodies of wrestlers, &c. serued to mollifie, to heal, resolu-
and incarnat, a medicin consisting of sweat & oile tempered together: with it they vsed to cure
the inflammations, contractions, distortions, and risings of the matrice, by application outward-
ly: therwith they would draw down the monthly fleurs of women; lenifie the intemperat heat,
and dissolue piles and swelling bigs in the seat or fundament: they vse the same also to assuage
the grieve of the sinews, to rectifie dislocations & set the bones in ioint, and to discusse the no-
dosities of the ioints. Howbeit, the scrapings that come of sweating in banes and hot-houses,
be counted of greater validitie in all these infirmities, and therefore no maruell if they enter in-
to the composition of maturative emplasters, and which bring an impostume to suppuration: as
for the foresaid medicines which stood vpon sweat, oile wherewith wrestlers were anointed, and
some vrine mingled among, they be good onely to mollifie the nodosities of the ioints: for as
they heat and resolu- more effectually, so in the other respects nothing so forcible they are as
those that be gathered out of stoues & baines. Verily a man would not beleue to what shame-
lesse and impudent curiosity some authors are grown vnto (and euen those of all others who be
most renowned) who bash not with open mouth to commend vnto vs that, for a singular remedy
against the prick of scorpions, which I am not willing to name, euen the filthy sperme that pas-
seth from a man by his priuities. Neither could they stay there, but to cause barren women for
to teem and beare children, they haue found out a proper pessarie to be put vp into their secret
parts, made forsooth of the ordure that commeth away from infants so soone as they be out of
their mothers womb: and this medicine they haue a pretty name for, & call it Meconion. More-
ouer, the Grecks haue gone so neare, that they haue scraped the very filth from the wals of their
publicke halls and places of wrestling, and such like exercises, and the same (say they) hath a
speciall excafactory vertue, whereby it discusseth and resolueth the biles and impostumes cal-
led Pani; and serueth as a fourraigne liniment to heale the vlcers in the bodies of children and
old folk, yea & to skin any place that is galled, raw, & blistered with burning. Lo what remedies
haue bin found in the body of man? And surely since I haue taken the pains to put them down,
I may not omit those voluntary medicines which depend vpon his minde, & proceed from his
will and vnderstanding. In the first place, you shall haue some that wil fast and forbear all kinds
of meat; others drink not at all; one while they abstaine from wine onely, another while from all
flesh meats; and you shall see diuers men neuer come vnto bathe or baine, euery one according
as their sicknes doth require. And this kind of abstinence or regiment of the selues, they hold
to be the readiest and surest means to recouer their health. In the rank of these remedies, are re-
coked bodily exercise, straining of the voice, vnction, scratching, and rubbing, as need and occa-
sion requireth; for hard and vehement friction doth confit and bind the body: contrariwise,
gentle and soft frictions do mollifie and open the pores; and, as much rubbing taketh down the
body and causeth leanness, so that which is moderat setteth it vp and encreaseth fatnesse: but
nothing is there more wholsome than walking and gestation; which is an exercise performed
many waies. If the stomacke be weake, and the legs feeble, riding on horseback is an excellent
exercise: for the pt thy sicke or consumption, nothing so good as to saile or be rowed vpon the
* water: but in case there be a long disease hanging vpon a man, what better thing in the world
E than to change the aire, and remoue from place to place? In like manner to procure sleep, by ly-
ing in some pretty bed that may be rocked too and fro, is oftentimes good for a mans health: as
also to vomit now and then, but in no wise to vse it ordinarily. Lying in bed vpon the backe, is
commended for the infirmities of the eies; but vpon the belly, for the cough. To lie vpon the
sides shifting from one to the other, is held to be singular against rheums and catarrhs. Aristotle
and Fabianus do, say, That we be giuen to dreame at the Spring and Fall, more than in the other
seasons of the yere: also, most when we lie with our face vpward, but neuer groueling. And Theo-
phrastus affirmeth, That sleeping vpon the right side, helpeth forward the concoction of meat in
the stomacke; whereas they that lie vpon their backe shall not haue so quicke digestion. The
manner of bathing also and vsing the baine and hot house, (which is one of the chiefe and prin-
cipall means of our health) is in a mans power to order as he list himselfe: like as he may chuse
what kind of friction he will in the stoue or hot-house; either to be rubbed with linnen cloths,
or well curried and scraped with kombes. Item, it is knowne to bee verie good and wholsome,
to wash ones head with hot-water, before hee enter into the baine or hot-house; and af-
ter that he is out of it, to doe the like with cold water: as also to take a draught of cold water

Dd 2

immedi-

* Specially vpon
on the sea.

immediatly before meat, and to do as much between meals:likewise to drink the same to bedward, yea, and otherwhiles in the very night, so as we sleep both before and after; where, by the way this would be noted, That no liuing creature else but man alone, delighteth to drinke any drink hot; know then hereby, that such kind of drinks be not natural. Finally, to wash the mouth with wine before one goeth to bed, for a sweet breath: likewise so soon as he is vp betimes, with cold water against the tooth-ach, so as he do it three or fīue times together, or at least wīse obseruing such an odde number; as also to bath the eies in a morning with Oxycrat (2) with vinegar and water mingled together, to preferue them for being bleared, are singular and approued experiments.

CHAP. V.

¶ Observations as touching Diet, and the manner of our feeding, for the regiment of Health.

Like to the former rules is this also, as touching our Diet, That it be not too precise, but so as we may feed indifferently of all viands, and acquaint our bodies with variety of meats; which is obserued to be the best way to maintain our health; and in very truth, Hippocrates saith, That to eat but one meale a day (2) to forbear dinners, is a diet that will drie vp a mans body within, and bring them soon to age and decay. But this aphorism of his he pronounced as a Physitian to reclaim vs from that hungry and sparing diet, and not as a patron and maintainer of full feeding and gourmandise: for I assure you, a temperat and moderate vse of our meats, is the wholsomest thing that is for our bodily health. But *L. Lucullus* was so strict herein, that hee suffered himselfe to be ordered and ouer-ruled by his owne seruant, who would not let him eat but as he thought good: in such sort, that it was no small disgrace vnto him in his later daies but as he thought good: in such sort, that it was no small disgrace vnto him in his later daies thus to make his man his master, and to be governed by him rather than by his * own selfe: for was it not (think you) an approbrious and shamefull sight, to see a * slaue and no better, to put his lords hands from a dish of meat, beeing an aged gentleman as he was, and who in times past had rode in triumph; to gage him thus (I say) and keep him short, though hee were set amongst great states at a roiall feast within the capitoll of Rome?

CHAP. VI.

¶ Of sneezing: the vse of Venerie: and other means which concerne mans health.

Sneezing dischargeth the heauinesse of the head, and easeth the pole or rheum that stuffeth the nose: and it is commonly said, That if one lay his mouth to the nostrills of a mouse or rat and touch the same, it wil do as much. To sneeze also, is a ready way to be rid of the yex or hicquet. And *Varro* giueth counsell, to scrape a branch of a * Date tree with one hand after another by turnes, for to stay the said hicquet. But most Physitians giue direction in this case, to shift a ring from the left hand to the longest finger of the right, or to plunge both hands into very hot water. *Theophrastus* saith, that old men doe sneeze with more paine and difficulty than others.

As touching carnall knowledge of man and woman, *Democritus* vtterly condemned it: and why so? Because (quoth he) in that act, one man goeth * out of another. And to say a truth, the lesse one vseth it, the better it is for body and mind both: and yet our professed wrestlers, runners and such gamsters at seats of a ctiuity, when they feele themselves heauy or dull, reuiue and recouer their liuely spirits again by keeping company with women. Also this exercise clenseth the brest and helpeth the voice, which being sometime before cleare and neat, was now become hoarse and rusty. Moreover, the temperat sports of *Venus*, easeth the pain of the reins and loins, mundifie and quicken the eyesight, and be singular good for such as be troubled in mind and giuen ouermuch to melancholy.

Moreover, it is held for witchcraft, to sit by women in trauell, or neare vnto a Patient who hath a medicine either giuen inwardly or applied vnto him, * with hand in hand, crosse-fingered one between another: the experience whereof was well seene (by report) when lady * *Alcmena* was in labour to be deliuered of *Hercules*. And the worfe is this peece of sorcery, in case the parter hold the hands thus joined a-crosse one finger within another about one or both knees. Also

* For every man is to be his owne Physitian: whereupon might rise this proverbe, A foole or a Physitian.

* Thought to be Calisthenes his Physitian: for in those days Physitians were reckoned but seruants to such persons as *Lucullus* was.

* *Palmis alternam manu scalpere*: vnlesse hee meaneth to scratch the palm or inside of the hand, &c.] which answereth somewhat to the remedies next following.

* *Et in alius exilire ex homine*: which *Dalcambius* expounds thus, For that a man in that action, goeth beside himselfe.

* For it is held that women in pain still, & hindreth the operation of Physicke.

* There was an old witch that by this means kept her in a long and tedious trauell.

A to sit crosse-legged, with the ham of one leg riding aloft vpon the knee of the other, and that by turns shifting from knee to knee. And in very truth, our ancestors time out of mind, haue expressly forbidden in all counsels of State, held by princes, potentates, and Generals of the field, to sit hand in hand or crosse-legged; for an opinion they haue, That this manner of gesture hindereth the proceeding and issue of any act in hand or consulted vpon. They gaue out likewise a strait prohibition, That no person present at any solemnity of sacrifices or vows making should sit or stand crosse-legged or hand in hand in manner aforesaid.

As for veiling bonnet before great rulers and magistrats, or within their fight, *Varro* saith, it was a fashion at first nor commanded for any reuerence or honour thereby to be done vnto gouernors, but for healths sake; and namely, that mens heads might be more firm & hardy, by that ordinary vse and custome of being bare.

When a mote or any thing els is salne into one eie, it is good to shut the other hard. If there be water gotten into the right eare, the maner is to jump and hop with the left leg, bending and inclining the head toward the right shoulder; semblably, if the like happen to the left eare; to do the contrary. If one be salne into a fit of coughing, the way to stay it is to let the next fel low spit vpon his forehead. If the vula be salne, it will vp again, if the Patient suffer another to bite the haire in the crown of his head, and so to pull him vp plumb from the ground. Hath the neck a crick or a pain lying behind, what better remedy than to rub the hams? Be the hams pained? do the like by the nape of the neck: say the cramp take either feet or legs, plucking & stretching the sinewes when one is in bed, the next way to be vsed, is to set the feet vpon the floore or the ground where the bed standeth: or put case the crampe take the left side, then be sure with the right hand to catch hold of the great toe of the left foot: and contrariwise, if the cramp come to the right leg, do the like by the right foot. If the body fall a shaking and quivering for cold, or if one bleed excessively at the nostrills, it is passing good to bind strait and hard the extreame parts; to wit, hands and legs, yea and to plucke the eares also. It falleth out oftentimes, that one cannot lie dry nor hold his water, but it cometh from him euer and anone; what is then to be done? mary tie the foreskin of his yard with a linnen thred or a papyr ruff, & withall, binde his thighs about in the middle. If the mouth of the stomacke be ready to turne, and will neither receiue nor hold any thing, it is good to presse hard and straine the feet together, or els to thrust both hands into hot water.

D To come now vnto our speech and exercise of the tongue: in many cases and for diuers causes it is wholsom to speak but little. I haue head say, that *Mecenas Messius* inioined himselfe three yeres silence, and during that time neuer spake word, for that in a fit of a convulsion or crampe, he had beforetime cast vp blood. In case any thing be ready to fall or rush violently against vs, and that we be in danger of some stroke, say that we be climbing vp hill, or turned downe backward, or lying along, there is not the like meanes againe to preferue our bodies, as to hold our winde: and this inuention we had from a bruit and dumbe beast, according as I haue shewed before.

Moreover it is said, that to stick down a spike or yron naile in that very place where a man or womans head lay during the fit of the falling sicknesse, at the very first time that hee or she fell, secureth the party that so doth, for euer being troubled with that disease. Also it is holden for a singular thing to mitigate the intollerable torments of the reins, loins, and bladder, to pisse with the body bending forward and groueling in the bathing tubs within the baines. As for greene wounds, it is wonderfull how soon they will be healed, in case they be bound vp and tied with a * *Hercules* knot: and verily it is thought, that to knit our girdles which we weare about vs euery day with such a knot, hath a great vertue in it, by reason that *Hercules* first deuised the same.

Demetrius, in a treatise that he compiled as touching the number of foure, affirmeth that it is of great efficacy; and he alledgeth reasons why it is not good to prescribe in any medicine to be drunke, the quantitie of foure sextars or foure cyaths. To rub the ears behind, is supposed to be very good for them that are giuen to be bleared: like as to rub the forehead, for weeping or watering eies.

Concerning the signs of life & death which may be found in man, this is one, That so long as the Patients eie is so cleare that a man may see himselfe in the apple of it, wee are not to despair of life.

As for the Vrine of mankind, diuers authors haue treated of it; who as I find, haue not onely

* Wherein the ends are to be seene, they are so close couched, & therefore hardly to be valuated.

saith, with the deadly Dwale called Dorycnion. In this maner also it cureth those whose brains be troubled and intoxicat with drinking Henbane. Physitians likewise haue prescribed to make a liniment with milke and Hemlock for to be applied vnto the gout. And some there be who vse it in that case, together with Oelype (r) the sweat or fattinesse of vnwashed wooll, and Goosegrease: in which manner it serueth in a pessary to be put vp in the naturall parts of women, to assuage the pain of the matrice. To drinke breest milke is a good meane to stop a laske, as *Rabirius* writeth, & yet the same doth prouoke the monthly course of womens fleurs: what is to be sayd now of a womans milke who hath borne a maid child? surely it is better than the other in these cases only, to wit, in scouring the skin of the face, and taking away the pimples, spots and freckles, which be therein. But I must not forget, that any breast milke whatsoeuer, cureth the maladies incident to the lights: and if there be tempered therewith the vrine of a yong lad not full fourteen yeares old, and Attick honey, so there be of each one spoonfull, I find it to be an excellent remedy for to rid away the ringing end thumping within the ears. And to conclude, it is a general speech, That if dogs do lap and tait the milke of a woman which hath borne a maid child, they will neuer run mad.

As touching the falling spittle of a woman, it is judged to be a proper medicine for bloud-shotten eies; also for the rheum that hath taken a course thither, if to be the corners of the eyes be euer and anone bathed and wet therewith when they be hot and inflamed; but more effectually will this remedy work, in case the woman forbear all meat and wine the day before. I read moreover in some Authors, That if the head be bound vp with a womans haire-lace or fillet, it easeth the pain thereof. And thus much in some good sort as touching the medicines proceeding from women. As for the rest that are written and reported, they exceed all reason, and there is no end of them.

For first and formost it is said, that if a woman whiles her monthly sicknesse is vpon her, bee set into the wind abroad with her belly naked, she will scar away haile storms, whirlewindes, and lightnings, yea, and avert any violence of the weather whatsoeuer. And at seaueryly, any woman standing openly against the weather bare, although she haue not her fleurs, is enough to seaman standing openly against the weather bare, although she haue not her fleurs, is enough to cure the failers and passengers from all tempests. As for the very monthly flux it self of women, (a thing in other respects and at all times, as I haue shewed before, of a monstrous nature) there be writers who tell and presage wonders thereof, such as be horrible, abhominable, and indeed not to be spoken: and yet some of these things I hold it no shame to deliuer in writing, namely, If it fall out just in the eclipse of Sun or Moon, that a woman hath her sicknesse come down, the same is a pestilent quality, and apt to breed diseases incurable. Likewise, if haply the time of the change, when the Moon is in coniunction with the Sun, and those things concur together, the man who medleth with her during that time, shall not auoid his bane but it will bring vpon him some pestilent malady remediless. Moreover, the venome thereof is so strong at that time especially more than at any other, that the presence or breath only of a woman then, will infect and staine any purple cloth. And yet bad enough it is at all times: for whensoever they are in their fleurs, it skills not in what quarter of the Moone, if they goe about any field of corn with their nakednesse vncovered, yee shall see the canker wormes, caterpillers, beetles, and all such wormes and hurtfull vermine, to fall from the corn as they passe along. This inuention by the saying of *Scepheus* and *Merodorus*, came from the Cappadocians, who being infected with a number of those green flies called *Cantharides*, deuised this means to be rid of them; for they caused their women at the time of their monthly terms (sauiing the reuerence of womanhood be it spoken) to go through the standing corne, with their cloths tuckt vp round about their waist, and all bare beneath. In other countries yet they are more mannerly, and in a better respect to the honor of women, put them only to go barefoot for this purpose, with their haire hanging loose about their eares, vngirt, vnclad, and vnbraced. Howbeit, great heed must be taken, that they walke not thus at the Sunne rising, for then surely all the crop vpon the ground will wither and dry away to nothing. Also if a woman during her natural courses doe but touch any yong vines, it is enough to marre them for euer. As for Rue and Iuie, Plants otherwise of themselves most medicinable, and indued with singular vertues against poison, they will presently die with their touch. Much I haue already said of this strong and pestiferous venome, and yet I haue not written all. For ouer and besides, certaine it is that if a menstruous woman doe no more but touch a Bee-hiue, all the Bees will be gone and neuer come to it againe. Also if at such a time she handle

A die any skains or slips of linnen yearn and set them ouer the fire to seeth, they will in the boiling turn black. Let her but take a barbers rasor in her hand, the edge wil turn and become blunt; nay if she do no more but touch any brasen vessel, it is wonderfull what a strong fauor it wil cast, and how it wil rust and canker therupon; and the rather, if this fall out to be in the decrease or wane of the moon. Doth a woman at such a time touch a mare that is in foale, it is enough to make her cast the same before due time. And not onely so, but the very sight of women in that case, although they be a great way off, is able to do much harm; but principally the first time that they haue the said fleurs after the losse of their maidenhead; or otherwise during their virginity, when they first come down by course of nature of the owne accord. The malignitie of this venomous humor is so great, that the slime ingendred within the lake of Sodome in Iury, as viscous as it is otherwise, will forgoe all that tenacity, and diuide in sunder by nothing els but a thred infected with the said menstrual blood, according as I haue declared heretofore. So forcible it is besides that the very fire, which is of power to ouercome all things and change their nature, is not able to conquer and alter this: for burne or calcine it to ashes, and strew neuer so little thereof vpon any cloths that are to be washed or scoured in the Fullers mill, it wil change their color, though they were of purple, and cause any die whatsoeuer to lose the fresh lustre. And more than that, so pernicious is the quality of this venome, that as naturall otherwise as it is to women, it is no better than a poison to those of their own sex: for in case one woman with child be annointed about her naturall parts, with the foresaid blood of another, or do but step ouer the place where it is, she will immediatly fall to labour, and slip an abortiue birth. As for the famous curtizans, C *Lais* and *Elephantis*, who haue written for contrary one to the other of this argument, and namely, as touching abortions, and of what efficacy the cole of Colewort, Myrtle, or Tamariske roots is, after it hath bin quenched in the said blood; as also, how she Asses will not conceiue for so many yeres as they chauce to eat Barly corns infected therewith; besides other strange deuises that they haue set abroad, I think them incredible, & I would not haue any credit at all giuen vnto their writings, considering the monstrosities & contrarieties which they haue put down, whiles the one prescribeth medicines for to make fruitful, & the other ordaineth the very same, to hinder conception and cause them to be barren. Moreover, *Bythm* of Dyrhachium saith, that for to make a mirror or looking glasse cleare againe, which was dused and dimmed by the aspect of a menstruous woman, the next way is to cause her to cast her eies backward and to look ouer her shoulders vpon it againe; he saith moreover, that if women in that case haue about them D the fish called a Barbill, they shal not by that means infect or do hurt at all, but the same menstruous blood shall lose all the foresaid strength.

Well, as hurtfull and mischieuous as it is otherwise, yet many there be who affirm it to be in many diseases medicinable, and namely, for the gout, if the place be annointed therewith; as also if women while their monethly sicknesse is vpon them, doe handle the wens named the Kings euil, the swelling kernels behind the eares, the broad tumors or biles called Pani, shingles, S. *Anthons* fire, felons, or violent flux of humors to the eies or other parts, there wil insue much ease therupon. *Lais* and *Salpe*, two notable strumpets, haue left in writing, That if the foresaid menstruous blood bestowed within a little Locke of wooll that came from a blacke Ram, be worne E inclosed within a siluer bracelet, it is a soueraigne remedy against the biting of mad dogs, and for Tertian and Quartan agues. *Diotimus* of Thebes reporteth, That any little peece or rag of cloth, yea, though it were but a thred stained therein, and so set hand somly into a bracelet, is sufficient to do as much. *Sotira* the renowned midwife affirmed, That there was not in the world so good a thing against the Tertian & Quartan, as to rub & anoint therewith the soles of the patients feet: but much more effectually would it do the deed, in case the woman her self had the doing of it with her own hand, so as the sick party know not thereof in any hand. And this (quoth she) is a soueraigne medicine to raise them out of a fit of the Epilepsie, who are surprisid and fallen therewith. *Ictidas* a worthy Physitian among the Greeks, assureth vs vpon his word, That Quartane agues will make an end and go away by the act of generation, at what time onely as a woman beginneth to enter into her fleurs. But this is agreed vpon by all authors professed and seen in this theam, that if one be bitten with a mad dog, and so far gone, that he is afraid of wa- F ter, so as he dare not see it or drink at all, do but put a clout or shred of cloth dipped in the said menstrual blood vnder the cup whereout hee is to drinke, hee shall immediatly be deliuered from that feare: And this commeth by that powerfull and predominant Sympathie, whereof the

the Greeks write so much, between mad dogs and the said blood, considering, as I haue before-
said, that they begin first to run mad by tasting therof. This is known for certain, that the ashes
of a burnt cloth infected therewith, or of the blood it self calcined, is a singular powder to heale
the tarcins or sores of horses and all such laboring beasts, so it be mixed with the foot of chim-
ney or furnace, and al incorporat together with wax. Now say there be any garment or cloth pol-
luted therewith, there is not any thing will take out the staine, but the urine onely of the same
woman. The ashes before said tempered alone with oile of Roses into a liniment, and so applied
in maner of a frontal to the forehead, allaieth the headach of women specially. This also would
be noted, That for the first yeare after a woman hath known a man, and so parted from her vir-
ginity, her fleurs are most sharp, mordant, and fretting. Furthermore, this also is resolued clearly
among all writers, That there is no charme or enchantment whatsoeuer, of any validity to doe
harm to that house where the side posts or dore cheeks are striked lightly ouer with menstruous
blood: an argument I assure you, that convinceth notably the folly of these Magitians, the vai-
nest people vnder heauen, and ouerthroweth all their art: and a point that pleaseth me very wel,
& which for mine own part I am right willing to beleue: and since I am light thus vpon them,
I care not much, if to detest their vanities, I set downe one of the most modest receipts that they
haue giuen their word for, and which may seem to carry some shew of truth or probability. For
thus they prescribe with great warrantize, To rake al the nail-parings of toes and fingers of man
or woman lying sick of an intermitten feuer, and to mix or incorporat them with wax, so as the
party in the doing herof do say these words, *I am about a remedy for the Tertian, Quotidian, or Quar-*
tan ague (according as the patient is troubled with the one or other of these feuers) which done
and said, to stick vp the said wax vpon the dore of another man or womans house that is not sick
at all, and that before the Sun be risen, which no doubt (as they say) wil cure the sick person, and
set the ague vpon another that was well before. Now would I gladly know what greater vanitie
and folly there can be, if this medicine misse and do not the feat; or what more villany and mis-
chiefe, than thus to transfer and remoue diseases from those that be sick already, vnto such as be
found and think no harme? To conclude, some of these Magitians are so far gone, that after all
the foresaid nailes of fingers and toes be pared, they ordaine them to be thrown into Ant-holes,
and to obserue that Emmet that first begins to draw one of them into her nest, to catch her vp
quickly, and hang her about the necke of any one that is sick of an ague, and so the patient *pro-*
cure, shall shake off the disease and be quite rid of it.

CHAP. VIII.

¶ The medicines that are found in diuers strange and forraign beasts, as namely, the Ele-
phant, Lion, Cammell, Hyæna, Crocodile, Chamæleon, Skinke, Water-
horses, and Onnces.

These be the remedies which the bodies of men and women do afford: as many I meane as
I may with some honesty relate: and yet ywis many of them be such as are not to be read
out and vttered, but with leaue and patience first craued, for the reuerence that we owe to
chastitees. I know ful wel there is a great deale more behind that I haue not touched, but such
stuffe I assure you as is detestable and not fit to bee spoken or committed to writing, which
makes me rather to make hast and leaue the discourse of Man and Woman, and so to proceed
to the singular vertues and operations of bruit beasts.

And to begin with the Elephant, The blood of that beast, especially the male, staieth all flux-
es of humors, which the Greeks cal Rheumatismes. The shauings of yvory (which is the Ele-
phants tooth) incorporat with Attick hony, scatter (as folk say) the dusky spots that appeare
in the visage: like as the dust thereof, which the file or saw doth make, cureth the whitflawes or
impotumations breeding at the naile roots. The trunk or muffle of an elephant if it be but tou-
ched only, allaieth the head-ach; & the more effectually it is, in case sneezing come withall. It is
said moreover, if one take a piece of the right side of the same trunk, & carry it fast about him
with the red ocre of Lemnos (called Terra Sigillata) it will incite him mightily to carnal lust.
The blood of an elephant is singular good for those that be in a consumption & wast away: like
as the liuer helpeth such as be giuen to the falling sicknesse.

The greafe or fat of a Lion tempered with oile of Roses into an vnguent, preserueth the skin
of

A of the face from all ill fauord spots, and keepes it white and smooth. The same ointment healeth
th skin that is scorched and pilled with cold, by traueilling ouer mountains charged with snow;
yea, and abateth the tumors & nodosities vpon the ioints. Now, if we list to beleue the foole-
ries of Magitians, they would bear vs in hand, that whoeuer be anointed all ouer with the said
greafe, shall be gracious with princes and kings, yea, and win much fauor among the people, and
any state or nation where they shall conuerse; but principally it must be the rat in the forehead
between the cie-brows (where indeed it is vnpossible to find any at all.) The like effects they do
promise of the Lions teeth, and those especially of the right side; like as of the shag haire (for-
sooth) that should hang vnder their nether jaw. Indeed, the gal of a Lion mixed with water, cla-
rifieth the eyesight, in case the eyes be bathed therewith: the same tempered with the own greafe,
B dispatcheth as they say the falling sicknes, in case the patient tast neuer so litle of it, & so soon
as he hath taken it, run a while for to digest the same. A Lions heart cureth a Quartane ague, if
the sick person do eat thereof, and their fat is a foueraigne remedy for the feuer Quotidian, if it
be vfed with oile of rose. There is not a beast so fel and sauage, but it wil run away from them: that
be anointed with Lions greafe; and it is thought to be a singular preseruatiue for to prevent any
secret ambushes or practises intended against one.

As touching the Cammell, his braine (by report) is excellent good against the epilepsie or
falling sic knesse, if it be dried and drunk with vineger; so doth the gall likewise taken in drinke
with hony: which also is a good medicine for the Squinancy. It is said that a Cammels tail dri-
ed causeth loosnesse of the belly: like as the dung reduced into ashes and incorporate with oile,
C doth curl and frizzle the haire of the head. The said ashes made into a liniment and so applied,
yea, and taken in drinke as much as a man may comprehend with three fingers, cureth the dysen-
tery: so doth it also the falling sicknesse. Cammels pisse (they say) is passing good for Fullers
to scour their cloth withal: and the same healeth any running sores which be bathed therein. It
is well known that the barbarous nations keep this stale of theirs vntil it be 5 yeres old, and then
a draught thereof to the quantiry of one hemine, is a good laxatiue potion: likewise that the
haire of their tails, twisted into a wreath or cord, and so worn about the left arme in manner of a
bracelet, cureth the Quartane ague.

As for the Hyæna, there is not a wild beast of the field that the Magitians haue so much in
admiration as it: for they hold that in the Hyæna it selfe there is a certaine magicall vertue, at-
tributing a wonderfull power thereto, in transporting the mind of man or woman, and rauishing
their senses so, as that it will allure them vnto her very strangely. Concerning the rare property
of these beasts to chaunge the sex each other yeare (i.) to be male this yeare, and female next;
as also touching other monstrous qualities obserued in their nature; because I haue discoursed
already of them, it remaineth now that I proceed to shew the medicinable vertues that are re-
ported to be found in them: wherof this may be counted for one of the chiefe, that considering
they be so terrible * to Panthers, that they dare not quetch nor make head against them: who-
foeuer hath about him but a piece of the Hyænes skin may be sure that a Panther will not set
vpon him, nor once come neere. And that which is a wonderfull thing to be spoken, in case the
D hides of them both be hung vp one against another, the haire of the Panther will fall off. When
E the Hyænaes flie before the hunter and would not be taken, they wind with a cariere out of the
way toward the right hand, and wheele about vntil the man be gotten before them; & this they
do, because they would meet with his trafts and footing, which if they happen vpon, and get be-
hind him, you shall see the hunter incontinently to be so intoxicat in his brain, that he is not a-
ble to beare his head nor sit his horse, but to fall from his back. But in case that they turn on the
left hand, it is an euident signe that they be ready to faint, and then will they quickly be taken.
The sooner also and with more ease be they caught (if we may beleue art Magick) if the hun-
ter tie his girdle about his middle with 7 knots, and the cord of his whip likewise wherwith he
ruleth and jerketh his horse, with as many. But see how subtil and cunning these Magitians bee
to cloke and colour their vanities and deceits, with superstitious circumstances! This chase for-
sooth after the Hyæne, must be iust at the very point when the moon is passing through the sign
F Gemini: and then if they be taken, the huntman must be sure to saue euery haire of their skins,
and misse not one, so medicinable they are. By their saying also the skin that grows to the head
of the Hyæne, if it be applied in manner of a frontall, is singular good for the headach: the gall
of the Hyæne cureth bleared eyes, if the forehead be anointed therewith: but if the same bee fod-
den

den with three cyaths of Attick hony and one ounce of Saffron, to a liniment, it is an excellent preferuative to keep one from euer being blear-eyed, if so be the eies be annointed with it. The said composition likewise is singular for to rid away the cloudy films and catarracts that breed in the eie. But for to clear the sight & quicken it, the older this medicine is, the better they hold it to be. And kept it must be in a brasen or copper box, which eie-salue they say, serues also for the mailles or spots, for the asperities, excrescences, cicatrices, dents, & excauations remaining in the eies. The graue or dripping likewise of the Hyænes liuer, newly taken out of the body and rosted, being incorporat with clarified hony into an vnquent, riddeth away the red film that ouercasteth the apple of the eie and darkneth the sight thereof. They will make vs beleue, that the Hyænes teeth are good for the tooth-ach, if the pained teeth be but touched therewith, or if the said teeth be arranged in order, and so applied fast vnto the patients teeth, as they may fit e-
 uery tooth in his head. The shoulders also of the Hyæne are proper to ease the paines that lie in our shoulders and arms both, so they be set likewise orderly and hanged close to the grieved parts. The teeth of the said Hyæne plucked out of the left side of the chaw, and bound vp sure within a piece of a sheep or goats skin, is right soueraigne to be worn in manner of a scutcheon or stomacher for to ease the intollerable paines of the stomack. A dish of meat made of their lungs and eaten, is soueraigne for the flux proceeding from a feeble stomack. But if the saue be burnt and reduced into ashes, and so brought into the form of a liniment with oile, and applied accordingly, it comforteth the stomack mightily. The pith or marrow taken out of the backbone along, and incorporat with old oile and * gall, is passing good for the nerues. The liuer of the Hyæne driueth away Quartan agues, in case the patient take three bits thereof one after another before the accesse. Take the ashes of the Hyænes ridge bone, the tengue and right foot of a Seale, put thereto a Bulls gall, seeth them all together and make a cataplatme thereof, spreading the same vpon a piece of a Hyænes skin, and apply it accordingly, you shall see how it will ease the pain of the gout. The very gal likewise of this beast mixed with the powder of the stone Asius, is commended by them for to cure the said malady. They that are subiect to trembling and to the cramp, such also as be giuen to leap out of their beds, or are troubled with the beating and panting of the heart, ought to take and boile the heart of the Hyæne, and eat one part thereof, and with the other being burnt to ashes and with the brains of the said Hyæne together reduced into a liniment, to annoint the grieved part. This composition likewise serueth to take away the hairs of any place, if it be annointed either with it alone, or els with the gall, & in case one would not haue them euer to come vp againe, they ought to be plucked vp before, and then the place to be annointed. Thus they vse to rid away the haire of the eie-lids that be troublesome. In like manner for the paines of the loins, the flesh about the Hyænes loines is prescribed to be eaten, and therewith oile together, and the place also is to be rubbed well and besmeared. They say moreover, that if a woman which is barren, eat the eie of a Hyæne with Liquorice and Dill, she shall proue fruitful: and so neare they go, as to promise she shall conceiue within three daies after. And (by their report) whoeuer are haunted with sprites in the night season, and be affrighted with such bugbears, let them but take one of the master teeth of the Hyæne, & weare it about them tied by a linnen thred, they shall be freed from all such fantastical illusions: these Magitians also giue direction to those that be out of their wits and gon besides themselves, to haue a perfume made with the smoke of those teeth, and to weare one of them hanging before the brest, with the fat growing about the kidnies, or els with the liuer or the skin. If a woman be with child, and would gladly go out her full time, let her take a peece of the white flesh of this beast, and 7 haire, neither more nor lesse, together with a stags pizzle, bind them all fast within the skin of a Buck or Doe, and so weare them hanging about her necke just against her brest, she shall not slip an vntimely fruit. Furthermore they promise in the behalfe of this beast, that if a man or woman do eat the genital member of a Hyæne, according to their sex, they shall be prouoked to fleshly lust, how cold soeuer the man were before, and could not abide to imbrace a woman.ouer and besides, if the said pizzle and shap of this beast be kept in any house, together with a joint of the ridge bone, skin & al as it groweth too, the whole family shall agree together well, and liue peaceably; now this ioint or knot aboue said they call Atlantion, and it is the very first spondyle of them all. The same also they make no small reckoning of, but hold it for a speciall remedy for the falling sicknesse. Fry the greafe or fat of an Hyæne, the fume thereof (by report) wil chase away serpents: a piece of the chawbone beaten smal to powder & eaten together with

* Helle: some read melle, i. Honey.

A with anise seed, doth mitigat the quivering & quaking in a cold ague fit. A suffumigation made therewith, draweth down womens sicknesse, if we may beleue magitians, who are grown to this passe in their vanity, that they auouch for certain, that if an archer do bind vnto his arm a tooth of an Hyæne, growing on the right side of the vpper chaw, hee shall shoot point blanke and neuer misse his mark. Take the palat or rouse of the mouth of this beast dried and made hot together with Egyptian Alumne, put the same into the mouth and change it three times for new fil, they promise it shall correct a stinking breath, and heale any vlcers or cankers in the mouth. And as for those that weare vnder the soles of their feet within the shoe, a Hyænes tongue, there is not a dog will be so hardy as to bay or bark at them. The brain of the Hyæne lying in the left side of the head, easeth any deadly diseases of man or beast, if the nothrills be annointed therewith. The skin of the forehead serueth as a countercharm against all witch-craft and inchaunments. The flesh growing to the nape of the necke, being dry and made into powder, appeaseth the pain in the loins of the backe, either eaten or drunk, it skils not whether. For the griefe of sinews, they giue order to make a suffumigation with the nerues of Hyæna, which run along the shoulders and back. And the hairs growing about the muzzle of this beast, haue an amatorious vertue with them, to make a woman loue a man, in case her lips be but touched therewith. The liuer of the Hyæna giuen in drink, cureth the cholique and stone. As for the heart, be it taken in meat or drink, it easeth all the paines of the body: the milt cureth the spleen: the kelle with the fat about it, helpeth any inflammation of vlcers if it be applied with oile: the marrow within the bones, appeaseth the griefe of the backbone and sinews, and finally, doth recouer and refresh the wearinesse of the reins and kidnies. The sinews of this beast drunk in wine with frankincense, restore women to the fruitfulness of the wombe, especially when by indirect means of forcery they are become barren and vnapt for conception. The matrice of the female Hyæne giuen in drink with the rind of a sweet pomegranat, is a very comfortable medicin for that part in a woman. A suffumigation made with the fat taken from the hetchill piece or loines, is singular for those women that be in hard trauell of child, and procureth them speedy deliuerance: the marrow or pith out of the ridge bone whoeuer carrieth about them, shall find help against vain illusions and fantastical imaginations. The pizzle of the male Hyæna, if it be burnt, casteth a fume which is good for them that haue any sinews plucked with the cramp. Saue the feet of this
 D beast, and the very touching of them is soueraigne for blear-eyed eies, for ruptures, & inflammations: but this regard must be had, that the left foot be applied to those griefes in the left side, and the right to the contrary. But wot ye what? if the right foot of the Hyæna chance to be carried over a woman whiles she is in labour of childbirth, she shall surely die of it; but contrariwise, let it be the right foot, she shall haue a quick dispatch and be deliuered with ease. The skin or purse that holdeth the gall, beeing either drunke in wine or taken with meat, helpeth those that for weaknesse of stomack be apt to faint and fall into cold sweats: and the bladder taken with wine, cureth those that cannot hold their water. Now look what vrine is found within the bladder of this beast, you must thinke it is an excellent drink if it be mixed with oile, Sesame seed, and hony, for any old griefe whatsoeuer. The first rib and the eighth will make a perfume, which
 E is passing good for those who are bursten: the spondyles or ioints of the ridge-bone, are as conuenient for women in trauell of child-birth: and the Hyænes blood taken inwardly with fried barley meale, doth mitigat the wrings and gripes of the belly. If the side posts or dore cheeks of any house be striked with the said blood, where soeuer Magitians are busie with their feats and juggling casts, they shall take no effect, whether they be charms, exorcismes, or inuocations: in so much as they shall not be able to raise vp spirits, nor haue any conference with familiars by any means of conjuration, whether it be by torch-lights, by bason, by water, by globe, or otherwise. The flesh of this beast eaten, is very effectual against the biting of a mad dog, and yet the liuer is of greater efficacy in this case. If there chance either flesh or bone of man or woman whom this beast hath killed and deuoured, to be found in the maw, surely the perfume thereof is a present remedy for the gout, as these Magitians would seeme to persuade vs. But how if there be found the nails of man or woman there: then wo be to all those that were at the hunting and taking of this beast, for it presageth that one of them is sure to die for it. Beside all this, they do affirme, That either the excrements or bones which the Hyæna dischargeth out of the belly at the time that she is killed, serue for countercharms or preferuatiues against forceries and practices of Magitians. As for the ordure or dung which is found within her guts, being dried and taken

ken in drinke, is auailable against the dysentery: and the same reduced into a liniment with Goose grease and so applied, helpeth those that by some poison are infected all the body over. The greafe likewise of this beast vsed as an ointment, hath a singular property to cure the biting of a dog, so that the patient be couched vpon the skin of the said Hyæna, as say our Magicians: who affirm moreouer, that a decoction made with the ashes of the pastern bone of the left leg, boiled together with the bloud of a weazil, causeth as many as be anointed all ouer therewith, to be odious in the eyes of all men. The same effect do they attribute to the decoction of the eie. But of all the fooleries that they haue broched as touching the Hyæna, this passeth and may go for the chiefe, That the hindmost end of the gut in this beast is of vertue, that no captain, prince, or potentat, shall be able to wrong or oppresse those who haue but the same about them: but contrariwise assureth them of good speed in all their petitions, and of happy issue in all suits of law and trials of iudgements. The concavity or wrinkle thereof, if a man do weare fast tied about his left arme, is so forcible to charme a woman, that if he do but set his eie vpon her, she will leaue all and follow him presently. The ashes of the haire growing therabout made into a liniment with oile, and applied accordingly, causeth those men who before were giuen to lewd wantonnesse and liued in bad name, not onely to become chaste and continent, but also to put on grauity and grow staide in their behauiour. Thus much of Hyæna.

For fabulous tales, the Crocodile may challenge the next place: a beast this is which naturally doth liue as well on land as in water: for two kinds there be of them; whereof the former (keeping thus in both elements) hath this especiall vertue, if we may beleue these Magicians, To prouoke vnto carnal lust, if the teeth which grew in the right side of the chaw, be hanged fast likewise to the right arme of man or woman. The eie-teeth of the said Crocodile, filled vp with frankincense (for hollow they be) and tied to any part of the body, put by those periodicall feuers which vse to return at sett and certaine hours; but then the patient must not for fiewe dayes together, see the party who fastened the same about him. And they report likewise, that the little grauel stones taken out of their belly, be of the same vertue to driue away the shaking fits of agues when they are comming, which is the cause that the Egyptians vse ordinarily to anoint their sick folke with the fat of this beast. The other Crocodile resembleth this in forme; but far lesse he is, and keepeth only vpon the land, liuing vpon most sweet and redolent flours. In which regard, much seeking there is after his guts, for the pleasant senteurs and odors wherewith they be stuffed full; this dung they call Crocodilea, a singular remedy for all the diseases of the eyes, and namely against cataracts, suffusions, and mistie films, if they be anointed with an eie-salue, made of it and the iuice of Porret mixed together. The same brought into a liniment with the oile Cyprinum, serueth to take away all pimples that rise in the face, and clenseth the skin from those spots that blemish the visage. But if it be incorporat with water, it scoureth whatsoever accidents be apt to run ouer the face, and reduceth the skin vnto the natieue color; for it riddeth freckles, moles, and generally any spots or flecks that marre the beautie or fauour. The same is good to be drunke in oxymell to the weight of two oboli for the falling sicknesse: and applied in forme of a pessarie, it prouoketh womens fleurs. Now if you would chuse the best Crocodilea, take that which is whitest, brittle, or easie to crumble, least weighty in hand, and withall swelling in manner of a leuaine, if it be rubbed between the fingers. The manner is to wash it, as they do white lead called Cerusse. Sophisticated it is with amyll, or the scouring Fullers clay & Tuckers earth called Cimolia; but principally with the dung that sterlings meut, which are of purpose caught and fed only with rice. Now there is not a better thing in the world (say these Magicians) for the cataract, than to anoint the eyes with it and honey together. And if a man may beleue their words, there is a soueraigne perfume made of the guts and the whole body besides, for women who are sicke of the mother, or otherwise diseased in the matrice, if they sit ouer it whiles it smoketh. In like manner, it doth them good to be lapped round about with wooll that hath bin so perfumed. The ashes of the Crocodiles skin, as well the bigger as the lesse, brought into a liniment with vineger, and applied vnto those parts of the body which had need to be cut away or dismembred, causeth the patient to haue no sence or feeling at all either of saw or launcer. The very swoke also of the said skin burning, doth the semblable. The bloud of both Crocodiles mundifieth the eyes, and causeth them to see cleare which are anointed therewith, removing the filmes and dispatching the spots that impeach the same. The very body or flesh it selfe of the Crocodile, all saue head and feet, is good meat foddren, for those

A those who bee troubled with the Sciatica: the same cureth an old cough, especially the chini cough in children; and assuageth the paine of the loins. The Crocodiles haue a certaine fat in them that is depilatorie; for no sooner is the hare rubbed therewith, but presently it sheddeth. The said fat or greafe preferueth those who be anointed therewith, from the danger of the Crocodiles, and is excellent good to be melted and dropped into the wounds made by their bite. The Crocodiles heart wrapped within a lock of wooll which grew vpon a black sheep, & hath no other color medled therewith, so that the said sheep were the first lambe that the dam yeared, is said to driue away quartane agues.

To this discourse of Crocodiles, wee shall not doe amisse if we annex other beasts in some sort resembling them, and which be likewise straungers as well as they. And to begin with the Chamæleon, *Democritus* verily made so great reckoning of this beast, that hee compiled one entire booke expressly of it, and hath anatomized euery seuerall member thereof: and certes, I cannot chuse but take great pleasure therein, knowing as I do by that meanes how to decipher and deliuer abroad the loud lies of vaine Greekes. This Chamæleon for shape & bignesse, is much answerable to the Crocodile last named, differing onely in the curbing or crookednesse of the ridge-bone, and largenesse of the taile. There is not a creature in the world thought more fearefull than it; which is the reason of that mutability whereby it turneth into such varietie of colours: howbeit of exceeding great power against all the sorts of hawkes or birds of prey; for by report, let them fly and soare neuer so high ouer the Chamæleon, there is an attractive vertue that will fetch them downe, so as they shall fall vpon the Chamæleon and yeeld themselves willingly as a prey to be torne, mangled, and deuoured, by other beasts. *Democritus* tellethvs a tale, That if one burn the head and throat of the Chamæleon in a fire made of oken wood, there will immediately arise tempests of rainy stormes and thunder together: and the liuer will do as much (saith he) if it burne vpon the tiles of an house. As for all the other vertues which the said author ascribeth to the Chamæleon, because they smell of witch-craft, and I hold them meere lies, I will ouerpasse them all, vnlesse they be some few, for which he deserueth well to be laughed at, and would indeed be reproved by no other means better: namely, That the right eie of this beast if it be pulled out of the head whiles it is aliue, taketh away the pearl, pin and web in man or womans eyes, so it be applied therto with goats milk. The tongue likewise plucked forth quicke, secureth a woman from the danger of childbirth, if shee haue it bound to her body whiles shee is in trauell. If there be found by chance a Chamæleon in the house where a woman is in labor, she shall soon be deliuered in safety: but if such an one bee brought thither of purpose, the woman is sure to die. Also, the Chamæleons tongue pulled out of the head whiles the Chamæleon is quicke, promisseth good successe in iudiciall trials. The heart bound within black wooll of the first shearing, is a most soueraigne remedy against quartan agues. The right forefoot hanged fast to the left arm within the skin of a Hyæna, is singular against the perills and dangers by theeues and robbers; as also to skar away hobgoblins and night spirits. In like manner, whoeuer carry about them the right pap of this beast, may bee assured against al fright and feare. But the left foot they vse to torrisie in an ouen with the herb called also Chamæleon, and with some conuenient ointment or liquor to make in certaine troches, whereof if a man do carry any in a box of wood about him, hee shal go inuisible, as sayth *Democritus*, if we were so wise as to beleue him: who affirmeth moreouer, That whoeuer hath about him the right shoulder of the Chamæleon, shall bee able to ouerthrow his aduersarie at the barre, and to vanquish his enemy in the field: but first, hee must be sure to cast away and make riddance of the strings and sinewes belonging thereto, and to tread them vnder-foot. As for the left shoulder, I am ashamed to relate, vnto what monstrous spirits hee doth consecrate it; and namely how by the vertue thereof, a man may cause what dreames and fantasticall illusions hee listeth, yea, and make those whome hee will himselfe, to imagine the same apparitions. As also, how the right foot of the said beast driueth away all such strange visions; euen as the lethargie will goe away by the meanes of the left side of this beast, which lethargie was occasioned by the right. Touching head-ache, hee sayth plainly, that the next way to cure it, is to besprinkle and wet the same with wine, wherein either of the two sides were soaked. Take the ashes (quoth hee) of the left thigh or foot, chuse you whether, incorporate the same with the milke of a Sow, and therewith annoint the feet, it wil be an occasion, speedily to bring the gout vpon them. But of the Chamæleons gall, for the most part, folk are in manner verily persuaded,

that it will rid the pin and web, the cataract also of the eyes, with three daies anointing; chase away serpents if it be dropped into the fire; gather all wezils in a country together, only by throwing it into the water, and fetch off haire if the body be anointed therewith. It is a common saying also, That the liuer of this beast is of the same effect, in case it be brought into a liniment with the lights of a hedge land. tode: like as, that all amatorious drinks & loue-charms become void and of none effect by the said liuer. As for those who be troubled in mind & giuen to melancholy, they find remedy, if out of this beasts skin they drink the juice of the herb Chamæle. Furthermore, the guts, and the dung therein contained (and that is worthy to be noted, considering this beast liueth vpon no meat at all) being striked vpon the dore of an enemies house, together with the vrine of apes, cause him to be hated of all the world. The like wonders they report of the Chamæleons taile, namely, how it wil stay any violent streame of riuer; stop the course and inundations of waters; and withall, bring asleepe and mortifie serpents. The same being aromatized or spiced with Cedar and myrrh, and tied fast to a branch of the Date tree growing double or forked, wil diuide the waters that be smitten therewith, so as a man may see what- ing branch, to haue made him hold in so many lies as he hath told, considering hee hath reported this quality of it among other, namely, to repress intemperat speech and inordinat walking of the tongue. But euident it is, that the only reason why *Democritus* faulted that way (being otherwise a man of a singular wit and wholly addicted to the good of mankind) was an excessive and extraordinary zeale that he had to profit and benefit the whole world.

Much like to this kind is the Skink (whom some haue named the land Crocodile) saue that the skin is whiter & more fine. But the principal difference is this, for that the bristles or scales are couched so, as they tend from the taile vward to the head; whereas in a crocodile the same are set contrary. The biggest of this sort, be thole of India: the next be they which are brought out of Arabia; & transported they be to vs salted. The muffle & the feet giuen to drink in white wine, do inflame the heat of lust; but especially when they be mixt with Satyrion and Rocket seed, of each one dram, mingled with two of pepper; and when they be wrought into trofches weighing euery one a dram, one of them must be taken at once. But the very flesh of the Skinks sides, drunk to the quantity of 2 oboli, with myrrh and pepper in like proportion, are supposed to be more effectuell for this purpose. The same (as *Apelles* reporteth) taken both before & also after meat, is a singular preferuatiue against inuenedomed arrows. Besides, it is one of the ingredients which go to the noble compositions that be called Antidors. Howbeit, *Sextus* is of opinion and doth write, that if a man drink aboue one dram weight of it in a hemin of wine, it is enough to indanger his life. Moreover, the iuice or broth of the Skinks flesh boiled and taken with honny, is thought to keepe downe the flesh and to coole lust.

As touching the riuer-horse called Hippopotamus, there is a great affinity or kindred rather between him and the crocodile, in regard that they both do haunt the same riuer, and participate both of land & water. This beast (as I haue shewed hertofore) deuised first the practise of phlebotomy or blood-letting. Great store there be of them beyond the Signory Saitica in Egypt. Take the ashes of this beasts hide, and reduce them with water into a liniment, it is singular to cure the broad biles or apostemations called Pani. The grease, and likewise the dung, is good against the cold fits of agues, if the patient receiue the perfume thereof. The teeth which grow on the left side of the mouth, do ease the tooth-ach, if so be the gums be scarified therewith: the skin taken from the left side of the forehead, laid vnto the share and kept fast thereto, staeth the prouocations to venery. The ashes of the same doth cause the hair to grow again thick in those places, where by disease it is shed. Take of the generois of this water-horse, the poise of one dram, and drink it in water, it is a good counterpoison against the venome of serpents. As touching their blood, it serueth painters in good stead.

The Onces be likewise taken for strange and forrein, and of all foure-footed beasts they haue the quickest eie and see best: by the testimony of all writers, there is in the Island Carpathos, a singular kind of ashes made of their houses, burnt together with their hide: and they hold, that if men drink therof, they will become chaste, were they neuer so licentious and libidinous before: again, let women cast the same vpon their nature or priuie parts, it will coole their appetite of mans companie; yea and kill the itch in any part of the body, if it be rubbed therewith. And the vrine of this beast helpeth the Strangurie, to wit, the infirmitie of the bladder when the water passeth

A passeth by drop-meale: which propertie they being by a naturall instinct aware of, so soone as euer they haue pissed, do hide and couer the vrine with mould, which with their feet they raise just ouer it, as it is commonly reported. The same vrine is prescribed for a good remedy in the pain or griefe of the throat. Thus much may suffice as touching forrein beasts: returne therefore now I will to those in this part of our world; and first declare the vertues and properties medicinal which are found common in all liuing creatures, yet making choise of those that be singular about the rest.

CHAP. IX.

B ¶ The common and ordinary medicines drawne as well from wild beasts as those which be tame of the same kind. The use of milk in Physicke, with the obseruations belonging thereto. Also of Cheese, Butyr, the grease also and tallow of beasts.

And to begin with Milk: these points following are to be obserued: *Imprimis*. Each liuing creature liketh best and findeth most good by the own mothers milk. *Item*. For nourses to conceive with child whiles they giue suck, is a most hurtful thing to their babes: for after such a time, their milk will thicken and cruddle in manner of a cheese (a dangerous matter for sucking infants) who thereupon be called Colostrati. Now the beestings, called in Latine Colostra, be that thick and spongy milk which is drawne first from the teat after the birth of the yong, be it in woman or beast. Also, there is no milk so nutritiue as that of a woman, whatfoeuer it be: next vnto which, goats milk is thought to nourish most; whereupon haply arose the fable that Poets fained, who deuised, that *Iupiter* was suckled therewith. Howbeit, setting womans milke aside, the sweetest of all other is that which the Camels giue: but asses milk is supposed to haue most vertue and efficacie in it. Moreover, this is to be noted, that the bigger bodied beasts be more glad milch, and their milk sooner passeth away through the belly and is easier digested than that of the smaller kind. Goats milk agreeth best with the stomach; the reason is this, because they brouse rather than graze: but cow milk is held to be more aromaticall and medicinal; howbeit ewes milk is the pleasanter, & yeeldeth more nourishment; notwithstanding it be not so wholesome, for that it is more fatty and grosse than any other. And generally,

D the milke which any beast giueth in the Spring, is more waterish & fuller of whey than in summer time: like as the milke of any young thing is thinner than other. But simply the best milk is that held to be, which sticketh to ones naile and wil not run off. Milk is least offensive and hurtfull when it is foddren, especially with little grauell stones among. Cow milk of all other is thought meetest for to make the body soluble. But what milk soeuer it be, lesse ventosities it ingendreth boiled than raw. In sum, this property hath milk in generall, To heal all inward vlcérations, but chiefly of the kidneys, bladder, guts, throat, & lungs: applied outwardly, after a spare diet or abstinence from meat, it cureth the itch of the skin; & any wheals & breakings forth occasioned by phlegmatic humors. As for the diet drink made of cow milk (which they vse in Arcadia for the phthyick or consumption of the lungs, for those that be giuen to colliquations and to weare away, as also in case of misliking when the habit of the body receiue no benefit by food) I haue written already in my treatise of herbs. We shall find vpon record in the Chronicles, diuers who by drinking asses milk, haue bin deliuered from the gout, as wel of hands as feet. The Greek Physitians, besides the generall kinds of milk, haue made mention of one more, which is artificiall, and they name it Schiston: the maner of making it is thus: Take what quantity you will of any milke, but let it be of a goat especially, if you can come by it, seeth the same in a new earthen pan neuer occupied before, with certaine branches of fig-tree, such as be fresh and new gathered; but you must put to euery hemine of milke, one cyath of mead or honied wine: while it doth seeth, keepe it from running ouer the vessell, by plunging into it a siluer goblet or boll full of cold water, and take heed that none thereof doe run out: after it is thoroughly foddren take it from the fire; for when it is cooled, you shall see how the parts therof wil diuide, and the whey depart from the milky substance. Some there be, who take the very whey againe, being now very strong of the mead or Must aboue sayd, and boile the same vntill a third part thereof be consumed, and then set it a cooling abroad in the open ayre: The vse heereof is very effectuell and commodious, if for fise daies space together, the Patient

tient take at times, with some rest between, one hemine thereof in a day; but after the drinking of this whey, if some exercise by gestation be presently vsed, it will haue the better operation. This drinke is vsually giuen to those that be subiect vnto the falling sicknes, the passions of melancholy, and the palse; also for the leprosie, elephanse, and all gouts or diseases of the ioynts. But to returne againe vnto milke: a clystire made therewith, is excellent good against any inward gnawings and frettings occasioned by the taking of some strong purgatiue medicines. Also in case of the dysentery, or hot exulceration of the bowels, the decoction of milk sodden together with the grauell stones about the sea-side, or with barley ptisan, is passing good to be clysterized; but for the corrosian of the guts, the milke of kine or ewes is better than any other. Also for the dysentery or bloody flux, the milk that is injected by way of clystire, would be fresh and newly drawne from the vdder: for the cholique, it ought to be ministred raw without any boiling: in like maner is it to be vsed raw, for the diseases of the matrice, the sting of serpents, the phthisick particular, cow milke is singular for them who be poisoned with drinking Colchicon, hemlock, Dorycnium, or the venome of the Sea-hare. As for asse-milke, it is soueraign good for those who haue taken inwardly, any plaster ceruse, *brimstone, or quick siluer: also to loosen the belly that is costie in a feuer: moreover, if the throat be exulcerat within, it is an excellent thing to gargarize therewith. The same is a very good restorative for them to drink, who after great weaknes are vpon their recouerie and would gather strength againe: such also as the Greekes call Atrophos, who haue no feeling nor benefit of their meat: also it may be allowed in an ague, so that the patient haue no head-ach. It was held in old time for a notable secret in Physick, to giue vnto children before meat one hemine of asses milke; or at the end of a meale, if they felt any fretting or gnawing occasioned by their meat: but for default hereof, they vsed goats milke in stead of the other. The whey of cow-milke is about all, soueraigne for those that be troubled with the straitnesse of breath, so as they cannot fetch their wind but sitting vpright, if there be put to it a little cresses: also it is good therewith to anoint beared eies, adding to euery hemine of milk foure drams of Sefame beaten to powder. Goats milke cureth the hardnesse and swelling of the spleen, especially if the goats being kept from meat two daies, and forbear all other food: and yet of which milke the patient must drink three daies together, and forbear all other food: and yet milke otherwhiles is contrary to those who be giuen to head-ach, subiect to the debility of the liuer, and the opilation of the spleen; to such as haue the ague, occasioned by some infirmite of the sinews; or be troubled with dizinesse, with the murre, poise, and stuffing in the head; with the cough also, and beared eies, vnlesse it be giuen as a purgation. Sows milke is of al other most excellent for the inordinat desire to the stoole, and straining thereupon without doing any thing; for the bloody flux also, and the phthisicke or consumption of the lungs. And some Authors there be, who affirme, that it is most wholesome for a woman to drink in any of the afore-named infirmities.

Of Cheefe, and the sundry kinds thereof, I haue spoken sufficiently in that discourse wherein I treated of Vdders, and the seuerall parts or members of liuing creatures. And verily *Sesius* attributeth the same effects to the cheefe made of mares milke, as he doth to that which is gathered of cow-milk: that kind of cheefe he calleth Hippace. Generally, all cheefe vn salted (i) fresh and Greene, is good for the stomack. Old cheefe stoppeth a laske, abateth flesh and maketh the body lean, yea, & is *hurtfull to the stomack. In sum, all salt meats take down those that be corpulent, whereas soft and tender viands do feed and nourish the body. Fresh cheefe applied with hony, reduceth the skin which is black and blew by reason of stripes, to the fresh and naturall color againe. * Old cheefe maketh the body costie, and assuageth the torments of the belly, if it be made into trofches, and those sodden in some stypticke or austere wine, and afterwards fried in a pan again with hony, and so applied. There is a kind of rotten & putrified cheefe, which the Greeks call Sapon: the same being punned with salt and drie Seruoises, and so giuen in wine to drinke, cureth the flux of the belly caused by the infirmite of the stomack. The cheefe made of goats milke, stamped into a cataplasme and so applied, healeth the carbuncles engendered about the priuy parts; so doth the soure cheefe also with oxymell. The same reduced into a liniment with oile, taketh away all spots in the skin, if the body be therewith annointed in a stoupe or hot house.

As touching Butyr, it is made likewise of milk, and among barbarous nations is held for the daintiest

A daintiest meat, and which doth distinguish the * rich and better sort from the poore commons. The milk of kine yeeldeth most butyr, whereupon it tooke that name: but the farrest Butyr is made of Ewes milke. Also there is a kind of Butyr gathered of Ewes milke: but in Winter the milke ought to be heated: whereas in summer time there needs no more to do but to presse it forth from the milk after much shaking & often agitation in certain long vessels (called cherns) hauing in the very mouth, a little narrow hole to receiue aire and giue vent to that within, or els otherwise stopped close, and bound vp with some cloth. Now in the churning, they vse to put thereto a little water, to the end that the milke may soure the sooner. After this beating and working of the milk, the thickest part [which is Butyr] floteth aloft, & is naturally of an oily substance. The rest they vse to boile in certain pans, & that which swims above, they take from B the other, & putting salt to it, they call it Oxygala. * Butyr the stronger sent or smacked that it hath, the better it is esteemed to be: & in very truth, stale butyr that hath bin long kept, is mingled in many compositions: for by nature it is *astringent, emolliuie, incarnatiue, & mundificatiue. Moreover, there is another way to make Oxygala; namely, to put four milke into the fresh milk, which you would haue to be soure, and this kind of chern milk, (sour-milke, or butter-milk, call it what you will, is thought to be most wholesom for the stomacke. But the properties and effects thereof I will set down in another place.

Among the medicinable parts which be common to all liuing creatures, their fat deserueth greatest commendation: but especially swines greafe, which in old time they vsed with great ceremony and religion. Certes, euen at this day there is a solemne ceremony, that the bride newly wedded, as she entred into her husbands house, should strike the side posts therewith for good luck sake. Hogs lard or greafe may be kept two maner of waies, either with salt, or as it is of itself vn salted: and indeed, the older, the better. The * Greeks in their books called it Axungia. But that there should be such strength in swines greafe, it is no maruell: for the reason is plain, because it is a beast that feedeth much of herb roots. Which is the cause also that their dung is much vsed for a number of purposes. And therefore take my words thus, that I meane no other swine but such as * feed and root in the field: among which, the female, especially a guelt that neuer farrowed, is more effectually than a [tame] bore, barrow hogge, or a breeding sow. But the greafe and dung both, of the wild bore, is preferred before al. Swines greafe then is imploied to mollifie, to heat, to discusse and mundifie. And some Physitians there be who prescribe for the gout an ointment made of it, with goose greafe, buls tallow, and the greasie sweat of wooll called Oesypus. But in case the pain continue still, they giue direction to vse it with wax, myrtle, rosin, and pitch. Hogs greafe alone vn salted and simply as it is, healeth burns and scaldings, yea, though one were scorched and sendged with snow. It cureth also kibed heels, if it be tempered with the ashes of burnt barley and gall nuts pulverized, of each a like quantity, and so reduced into a salve. Also it is good to anoint merigals therewith, namely, when one part of the body is fretted & chafed against another: likewise it refresheth those that be weary & tired with much trauell: for an old cough, seeth of fresh hogs greafe, that is sweet, the quantity of three ounces in as many cyaths of wine, putting hony thereto, and let the patient drinke it. Old seame also that is tried and kept vn salted, made into pills and taken inwardly, cureth the phthisick & consumption of the lungs. For surely if it haue taken salt once, there is no vse therof, vnlesse it be to mundifie and cleanse, or els before the part is exulcerat. Some there be who ordaine to seeth hogges lard & hony, of each three ounces, in three cyaths of wine, for a medicine to cure the consumption of the lungs: with this charge, that the first day after the patient take a quantity of tarre in a rare egge, hauing his side, breast, and shoulders well swadled before and emplaistered with the said composition: for so forcible it is, that if a plaster therof be but bound to the knees, the very sent thereof will come vp to the mouth, and cause a kind of saliuation, whereby the patient shal seeme to spit it vp againe. The greafe of a young guelt which neuer had pigs, is a very proper medicine for women, to make their skin supple and euen without wrinkles. But any hoggs seam tempered with beatts tallow or suet, to the quantity of a third part, & some pitch, all melted together, & made somewhat hot, is soueraigne for scabs. Swines greafe that is pure and vn salted, if it be put vp beneath in manner of a collyrie or pessary, giueth comfort to the infant within the mothers wombe, which otherwise would haue bin ready to slip forth before time, and proue an abortiue fruit. The same being tempered with cerusse or lycharge of siluer, into a salve, and so applied, reduceth any skars to the naturall colour of the other skin about them. But with

* Either for that the rich only are allowed to feed vpon butyr, because they haue plenty thereof, and raise a yearly revenue for that commodity, whereas the rest can spare none from their own bellies. * Quo magis virus respicit. Some would amend this place, and for [magis] put in [minus] in a contrary sense: but I suppose he writ: in regard of barbarous people who make more account of such ranke butyr: like as the viciuall Irish in these daies. * Natura eius adstringere, some reade digere, it is digessive. * And yet it is a Latine name of this Xungia because they vse to greafe axeltrees therewith. * Not those that be franked or kept in sties.

* Insultiores: ex Disco. 23. 45. 50. 70.

* Vetus.

brimstone it cureth the raggednesse of the nails: it staieih likewise the haire of the head which G is giuen to shed: also if it be mixed with a fourth part of gall-nuts, it healeth the vlcers in a wo- mans head: but if it be well smoked, it helpeth to preferue the haire of the eie-lids. An ounce weight thereof boiled in one hemine of old wine, vntill there be three ounces and no more of the whole remaining, is giuen (an ounce at once) to those who are in a phthisick. Some appoint a little hony to be put thereto. The same together with Quick-lime reduced into a liniment, is singular for the biles and impostumes called Pani, as also for felons and the hard tumors of wo- mens paps: it serueth besides to cure inward ruptures and convulsions, spasmes, crampes, and di- H flocations. Being applie d with white Ellebore, it healeth corns, agnells, fissures, chaps and callo- sities. But incorporat with the pouder of a saltars pot-shard, it heales the swelling impostumes behind the ears, as also the wens called the Kings euil, being ordered in like manner. If the bod- dy be well rubbed and annointed therewith in the baine or hot-houfe, it taketh away all itch, red pimples & wheals rising in the skin. Moreouer, prepared after another sort, to wit, with old oile together with the stone called by the Greekes Sarcophagus, beaten to pouder, adding thereto the herb Cinquefoile stamped in wine either with Quicklime or with ashes, and so reduced in- to a liniment, it is very good for those that be troubled with the gout. Thereof also is made a singular plaster against inflammations, in this wise, Take of the said greafe the weight of four- score and five pound, of white litharge of siluer one hundred pound weight, mix them both to- gether. As for Bores greafe, if there be a liniment made of it and rosin, it is thought to be excel- lent good for to anoint therewith vlcers that be corrosiue and giuen to spread farther. [In old time men vsed it most about the axletrees of their carts and wagons, anointing them therewith, I that the wheels might turn about more easily: whereupon it took the name Axungia.] And be- ing employed in this maner, it serueth for a medicin to cure the vlcers of the feet & priuy mem- bers seruing to generation, by reason that it is mixed and coloured with the rust of the yron in- corporat into it. The ancient Phyticians made most account alwaies of the said hogs greafe, by it selfe, which was plucked from the kidnies, for after it was clenfed from the strings, veins, and skins, they washed it often and rubbed it well in rain water, which done, they sod it in new ear- then pots, shifting it out of one into another many times; and beeing thus tried and clarified, they kept it for their vse. Howbeit, all are agreed, that when it hath taken salt, it is a greater e- mollitiue, it heateth also, discusseih and resolueth more: yea, & being washed in wine, it is much better than otherwise.

As touching the fat or greafe of a Wolfe, *Massurius* writeth, that in old time it was esteemed before any other, & had the price aboue all. And he saith, that new wedded wiues were wont vpon their marriage day to anoint the side posts of their husbands houses therewith at their first en- trance, to the end that no charms, witchcrafts and forceries might haue power to enter in: thus much of greafe. Look what vertue greafe hath, the same, be sure, is the suet and tallow endued with which commeth from those beasts that chew cud: and although it may be handled & dres- sed otherwise, yet in force it is nothing inferior. But what talow soeuer it be, the best way of pre- paring it, is after the skins or veins be rid away, to wash it first either in sea water or salt brine, and then within a while to stamp it in a mortar, eftsoons sprinkling it with sea-water: after which it ought to be sodden in many waters, vntill it haue lost all the sauer & rank tast that it had: and then at last by setting it in the Sun continually, it wil be reduced to a perfect whiteneffe: more- over, this is to be noted, that the best suet is that which groweth about the kidnies. But say that old tallow is called for, and to be vsed in any cure, it ought first to be melted, and then anon to be well and often washed in fresh cold waters; which done, it must be liquified a second time, casting and pouring thereupon eftsoons the best odoriferous wine that may be gotten: after which maner they vse to seeth it again and again, and neuer giue ouer, vntill the rank smell and sent thereof be clean gone: and verily many are of opinion, that particularly the fat of Buls, Li- ons, Panthers, and Cammels ought thus to be ordered and prepared. As for the vses & proper- ties of these Pomonades, I will treat thereof in conuenient place.

Concerning marrow, it is a thing common to all creatures, like as the fat abouesaid. All the kinds thereof are emollitiue and incarnatiue: they dry also & heat the body. The best marrow simply is that of Deere, as well red as fallow: next to it in goodness is calues marrow: and then in a third rank follow kids and goats marrow. Prepared they ought to be and dressed, before Au- tumne, when they be new and fresh washed, and dried in the shadow. But afterwards they must be

* If they come from beasts of hot nature: for otherwise they be temperat.

A be melted again and run through a finer sercer or pressed through liinnen strainers, which done, they should be put vp in earthen pots, and set in a cold place.

But of all those things which are generally to be found in euery liuing creature, the gall is that which is of greatest efficacy in operation: for power it hath naturally to heat, bite, cut, draw, discusse and resolu. The gall of smaller beasts is taken to be more subtil and penetratiue than that of the greater, and therefore supposed to be the better for to go into eie-falues. Buls gall is thought to haue a speciall faculty aboue all others, principally in setting a golden colour vpon skins, & brasse. What gall soeuer it be, in the preparation therof for any vse, regard must be had, that it be taken fresh and new, and then the orifice of the burse or bag wherein it is contained, ought to be tied fast with a good round packthread; thus being bound vp close, it must be cast in- to boiling water, and there remain halfe an hour, within a while after, so soon as it is dried (out of the Sun) it ought to be preferred and kept in hony. The gal of horses only is vtterly condem- ned, & reputed as a very poison: which is the cause that the arch-Flamin or principall sacrificer is forbidden by law expressely to touch an horse, notwithstanding that in Rome it is an ordinar- y thing to sacrifice euen horses publicly: and not their gall alone but also their blood, is cor- rosive by nature, and putrefactiue. The blood of Mares milke likewise, vnlesse they be such as were neuer couered nor bare soles, doth corrode: in which respect it is good to eat away scurfe about the brims of sores and vlcers: and verily * Buls blood fresh running out of the body, is reckoned no better than venom: and yet I must except *Agira*, a city in Achaia, where the priest- resse of the goddesse * *Ops*, at what time as she is to prophesie and foretel things to come, vseth C by drinking buls blood to prepare her self before she goeth down into the vault or shrouds out of which she deliuereth her prophesies: so forcible is that sympathy, wherof we speak so much, that otherwise it is occasioned either by a religious opinion & deuotion in mens mindes, or els by the nature of some place. *Drusus* sometimes a Tribune of the commons in Rome, drank (as it is reported) Goats blood, to make himselfe look pale & * wan in the face, at what time as he meant to charge *Q. Capius* his enemy with giuing him poison. And verily, the blood of a buck goat is so strong, that there is not any thing in the world wil either sharpen the edge of any yron tools sooner, or harden the same when it is keen, than it. And as for the ruggednes of any blade, it wil take it away more effectually and polish it better than the very file. Considering then this diuersity which is seen in the blood of beasts, I cannot write thereof in such generall termes as of a thing indifferently common to euery one of them, but I must be forced to speak particular- ly of their severall effects. In which regard I will treat respectiue of beasts, according as they do yeeld remedies against this or that malady: and first as touching those which are aduersen- to Serpents.

To begin then with Stags and Hinds: no man there is so ignorant but he knoweth, that they plague serpents to the very death, for they pluck them forth of their holes, and eat them when they haue don. And not only whiles they be aliue do they war against serpents with the breath of their nostrills, but also when they be dead, euery member and peece of their body is contrary vnto them. Burn a peece of an Harts horne, you shall see how the smoke and smell thereof will chase away serpents, as I haue obserued hertofore: & yet they say that the perfume of the bones which are about the throat of a Stag, hath a contrary property, to gather them together. Let a man lay vnder him Stags skins in stead of a matrace, he shall sleep securely, without any feare that serpents will approach to do him harm. The rennet in their maw, or the rede it selfe, if it bee drunk with vinegar, is a soueraigne antidot against their venomous sting: and look what day one do but handle it, he shall be sure and safe from any danger by them. The genetoirs of a Stagge kept vntill they be dry, like as the pizzle also made into pouder and taken in wine, is a singular counterpoison, resisting the venome of Serpents. Euen as the rim of the paunch, which is called in Latine Centipellio. Who soeuer haue about them so much as the tooth of an Hart, or be an- nointed with the marrow or suet of a Stag, Buck, or Hind-calf, need not to feare any serpents, for they will flie from them. But aboue all remedies, there is none like to the rennet of a Fawne or Hind-calf, such a one especially as was ripped out of the dams belly, as I haue shewed hereto- fore. If together with Deeres blood there be burned the herbe Dragon, bastard Mariaram, and Orchanet, in a fire made with Lentisk wood, Serpents (by report) will gather round together in- to an heap: take away the same blood and put into the fire the root of * *Pyrethrum*, they will scatter a funder againe.

* *Themistocles* therewith poi- soned himself. * *i. Tellus*, or Terra the earth.

Iravidia, for *Liurus*.

* *i. Pelitary* of Spaine.

I reade

I read in Greek writers of a certain beast lesse than a Stag, but like in haire, called Ophion, G which folk say is wont to be found only in the Isle Sardinia: but I suppose that the race of them is utterly extinct and gone. Wherefore I will forbear to write of the medicinable properties reported by that beast.

CHAP. X.

¶ *The medicines (against Serpents) found in the wild Bore, in Goats, and wild hares. Also of other remedies which diners beasts do yield against all diseases.*

The brains of a wild Bore is highly commended against the sting and venome of serpents. R So is the blood likewise. Semblably, is the liuer kept and preserved long with Rue, if the same be drunk in wine. In like maner the fat of the wild bore incorporat with hony & rosin. Also the liuer of a tame bore being clenfed from the filaments and strings therein, taken to the weight of foure oboli, or the very brains drunke in wine.

If a man burn the horn or haire of goats, the fume thereof driueth away serpents, as it is commonly said: and the ashes that come thereof either drunke inwardly or applied in a liniment without, are of great force against their stings. Moreover, a draught of Goats milke taken with the grape of the vine Taminia, or of their vrine drunk with squillitike vinegar. Furthermore, it is said, that cheefe made of Goats milke together with Origan used in a cataplasme, or their tallow incorporat with wax, worketh the like effect. A thousand medicines besides are reported to be drawn from this beast, as shall hereafter appeare: whereat for mine own part I much marvel, considering, it is commonly said that he is neuer out of a fever. The wilde of this kinde doe afford medicines more effectuall than the tame, and those as I haue said multiplie exceedingly. As for the Bucks or male Goats, they haue medicinable properties apart by themselves. And Democritus saith, That the Buck which the dam bare alone, is of greater efficacy than any other: who affirmeth moreover, that it is very good to anoint the place stung with serpents, with Goats dung sodden in vinegar: also with the ashes of the said dung fresh made, and tempered with wine into a liniment. In sum, as many as hardly are cured of serpents stings, recouer thereof passing wel, if they ordinarily haunt Goat-pens and stals where they be kept. But such as would haue a more speedy & assured cure, take the panch cut out of a Goat newly killed, together with the dung found therein, & presently bind the same fast to the place affected, so soone as they be stung. Others perfume the flesh newly hurt, with kids hair burnt: & with the same smoke chase away serpents: they vse also to apply their skin newly flaid, to the wound: like as the flesh and dung of a horse that lieth out and feedeth abroad in the field: the rennet likewise of an Hare in vinegar against the prick of a scorpion and the venomous tooth of an hardishrew. Moreover, it is said, that as many as rub and anoint their bodies with hares rennet, need not feare their stinging. If any be hurt by a scorpion, Goats dung helpeth them; but the better, if it be boiled in vinegar: and in case one be poisoned with swallowing down those venomous flies called Buprestes, he shall find great help by eating lard and drinking the broth or decoction thereof. Furthermore, if a man round an asse in the eare, and say closely, That he is wounded by a scorpion, the pain and grievance thereof will immediatly passe away: yea and any venomous thing whatsoever, will flie from the fume of his lungs as it burneth: also it is good for those who are stung by scorpions, to be perfumed with the smoke of calves dung. If a man be wounded by the biting of a mad dog, some there be who cut round about the place to the very quick, laying therto the raw flesh of a calfe, and then giue the patient to drink the broth of the said flesh boiled, or els hogs greafe stamped with quick-lime. Others highly praise the liuer of a buck Goat, affirming that if it be once applied, he shall not fall into that symptome of hydrophobie or fearing water, incident to those that be bitten with a mad dog. They commend also a liniment made of goats dung and wine or hony tempered together: like as the decoction of a grey or badger, of a cuckow and a swallow, taken in drink. For the biting of other beasts, it is an ordinary practise to lay vnto the sore, dry cheefe made of goats milke, together with origan, but they giue direction to drink the same in some conuenient liquor: in case one be bitten by a mans tooth, they prescribe boeuse sodden and applied, howbeit the flesh of a calf is more effectuall; with this charge, that this cataplasme be not removed before the fift day. It is a common saying, that the muffle or snout

A snout of a Wolfe kept long dried, is a countercharm against all witchcraft and sorcery; which is the reason that they vsually set it vpon gates of countrey fermes. The same force the very skin is thought to haue which is flaid whole of it self, without any flesh, from the nape of the neck. And in truth, ouer and aboue the properties which I haue reported already of this beast, of such power and vertue it is, that if horses chance to tread in the tracks of a Wolfe, their feet will be immediatly benumbed and astonied. Also their lard is a remedy for those who are empoisoned by drinking quick-silver. Asses milke if it be drunke, doth dull and mortifie the force of any poison: but more particularly, if any haue taken Henbane, the viscous gum of the herb Chamæleon, Hemlock, the sea-Hare, the iuice of Carpathum, the poison Pharicum, or Dorycnium: also in case that cruddled milke haue done harm to any; for surely it is no better than poison, especially the first beestings, if it quaille and cruddle in the stomacke. To conclude, Asses milke hath many other medicinable properties which we will speake of hereafter. But remember alwaies to vse this milke whiles it is fresh and new drawne out of the vdder, or els not long after, & then it must be warmed: for there is not any milke that sooner loseth the vertue. Moreover, the bones of an Asse well broken, bruised, and sodden, are giuen for a counterpoison against the venome of the sea-Hare. And for all these purposes before said, the milke and bones of the wild Asses be thought more effectuall.

As touching wild horses, the Greeks haue written nothing, because throughout all Greece there are none of them to be seene. Howbeit, whatsoever medicinable vertues be attributed to horses, the same we must think more forcible in the wild than in others. Neither had the Greeks any experience of those Neat or Buffles called Vri and Bifontes: & yet the forest of India be full of wild buls & kine. Now by good reason and proportion, we are to think, that whatsoever cometh from them, is more auailable in Physicke, than from the tame of that kind. And verily, Cow milke is said to be a generall counterpoison, able to kill any of those venoms abouenamed. Ouer and besides, if the dangerous Lilly called Ephemerum Colchicum, be taken inwardly and setled in the stomack, or if the Greene flies Cantharides haue bin giuen in drink, the said milke will send vp all againe by vomit. And as for the Cantharides, the broth of Goats flesh will doe the like. Against those corrosiue poisons which kill by exulceration, the tallow of a calfe or any Boeuse, is a soueraigne medicine. As for the danger that cometh by drinking Horse-leaches, Butyr made of Cows milke, is a singular remedy, if it be taken with vinegar, heat with a gad of Steele. The same alone without any other thing is a good counterpoison, for if oile be wanting, butter may serue the turn as well. Being ioined with hony, it healeth the sores occasioned by the biting of the Porcelers called Multipeda. The broth made of their tripes, if it be drunke, is thought to kill any poison abouenamed: and besides, the Aconite and Hemlock: so doth the suet of a Calfe. Greene cheefe made of Goats milke, is good for them that haue drunk the venomous viscositie issuing out of the herb Chamæleon, called Ixias: but their milke is a remedy against the flies Cantharides and the venomous hearbe Ephemerum, if it be drunke with the grape Taminia. Goats blood sodden together with the marrow, is taken against the poisons called Toxica; and kids blood against the rest. The rennet found in the maw of a kid, hath a peculiar vertue to mortifie the venom of the foresaid viscous gum Ixia, as also of the herb it self, Chamæleon the white, yea, and Bulls blood: for which the rennet of an Hare with vinegar, is a singular defensatiue. Against the venomous Raie or Puffen called Pastinaca Marina: the prickle or sting also of any sea-fish, the said rendles of an Hare, Kid, or Lamb, is a singular antidote, taken to the weight of one dram in wine. As for the rennet of an Hare, it is one of the ordinary ingredients that go to the composition of all preseruatiues and counterpoisons.

There is a kind of Butterflie that vseth to fly about candles as they are burning, which is reckoned among poisons. The aduersatiue remedy against it, is a Goats liuer: like as their gal is soueraigne against any venomous drinks made of the rusticke weazill.

CHAP. XI.

¶ *Receipts and remedies for many kinds of maladies, taken from sundry beasts.*

But now will I returne to the remedies appropriate to diseases respectiue to the particular members of the body: and first to begin at the head: Bears greafe mixed with Ladanum, and that kind of Maidenhaire which is called Adiantum, retaineth the haire of the head which is

ears, but they ought to be well chaused and set into an heat before. Now are these medicines to be inclosed within wooll, and so applied. Moreover, calues tallow, with Goose grease and the juice of Basil, is good for the hearing: also calues marrow incorporat together with the powder of cumin, and so powred into the ears. The slimy sperme of a bore which passeth from the shap of a sow after she is brimmed, if it may be gotten before it touch the ground, is singular for the pain of the ears. If the ears be crackt and hang flagging down, there is nothing better than glue made of calues pizzles, if the same be dissolued in water. For other impediments of the ears, the fat of foxes is very good. In like manner, Goats gall, with oile of Roles warme, or the juice of leeks: or if there be any rupture within the ears, the said gall must be applied with breest-milke. For those who be hard of hearing, or haue their eares running and suppurate within, it is not amisse to drop into them a beasts gall, with the vrine of a shee-goat or of the male, it makes no matter. But these medicines howsoever they are to be vsed, are thought to be more effectual by far, in case they were put into a goats horne, and so hung in the smoke for the space of 20 dayes together. Also there is great commendation of the rennet of an hare, if there be one third part of a Roman denarius thereof, and halfe a denare weight of gum Sagapene, conporat in Aminean wine. As for the swelling impostumes behind the ears, bears grease represseth and keepeth them downe, if there be a cerot made thereof, together with the equall weight of wax and bulls tallow: some there be who put Hypoquist thereto: and butter alone is good to annoint them with, so that they were fomented before with the decoction of Fenigreeke. Howbeit, of much better operation it would be, in case Nightshade were added thereto. The stones of a fox, bulls bloud also dried and reduced to powder, be commended in this case. Moreover, the vrin of a shee-goat made warme, and so dropped into the ears: the dung likewise brought into a liniment with hogs grease is very good.

hogs greafe is very good.

To come now to the infirmities of the teeth: if they be loofe and shake in their sockets, the afhes of harts horn will fettle them firme and faft again: if they ake, the fame afhes are verie good to eafe the paine, whether the teeth be rubbed or wafhed therewith. But fome are of opinion, that the powder of the faid horne not burnt at all, is far better than the afhes in thefe cafes: howbeit, there be dentifrices made both of the powder and alfo of the afhes. Moreover, the afhes of a wolues head is thought to be a foueraigne remedy for the pains incident to the teeth. Now it is well knowne, that among the excrements of a wolfe, there be many times bones found, which if they be hanged about the necke, arme, or other parts of the body, haue the fame effect. Likewise the crudled rendles of an hare infused into the eare, are fingular for the tooth-ache: the afhes alfo which come of the head burnt, is a pretty dentifrice for to rub the teeth withall: but if you put Nard thereto, it doth correct and palliat a ftinging breath. But fome there be, who chufe rather to mingle therewith, the afhes of mice and rats heads. There is found in the fide of a hares head a certaine* sharpe bone like vnto a needle, herewith, Phyficians giue counfel to fcarriffe the teeth and let the gums bloud, for the tooth-ache. Take the bone of a beaft, fet it on fire, and when it is red hot, hold it clofe to the teeth that be loofe and ake withall, it will fet them faft againe: the fame being reduced into afhes, and tempered with myrrhe, is a proper dentifrice to blaunch the teeth. The bonie fubftance likewife of hogs cleyes burnt and calcined, is of the fame force and operation: alfo the hollow hetchill or whirlebones of their hips, about which their hucklebones turne, worke the like effect if they be brought into afhes. Well knowne it is, that if the fame be conueighed downe by a horne into the throat of horkes and fuch like beafts, they will cure the wringing torments of the botts that fret and gnaw them in the bellies: and beeing burnt, they are fingular good to confirme and faften the teeth that bee loofe and doe shake. Alfo if the teeth be payned by occafion of fome blow given vnto them, Affes milke helpeth them: fo do the teeth of the faid beaft, if they be calcined and reduced into afhes: this infirmitie is helped alfo with the rough wert or corne of an horfe if it be infused into the eares with oile: this bunch is called by the Greekes Lichen: and it is not that which is named Hippomanes, whereof I haue no purpofe to fpeak (confidering it is a hurtful and venomous thing) but a certaine excrefcence growing about Horfe knees, and about their houfes. Moreover, in the heart of an Horfe there is found a bone, like for all the world to the eye-teeth of a dogge: this they hold to be a very foueraigne thing for to fcarriffe the teeth when they ake. Alfo if one take a tooth out of one of the chawles of a dead horfe, it will eafe his owne that aketh. fo it be correspondent in place and number to that which is in paine. The fperme that paffeth from

A from the mature of a mare after she hath been covered by a stallion, if the wicke of a candle or lamp be therewith besmeared and set a burning, doth represent a most strange and monstrous sight of horse heads, as *Anaxilans* hath reported: euen so will that of the shee Assie, make a shew and apparition of Assie-heads. As for Hippomanes before named, it is so strong and forcible a venome, especially to incite and stirre vnto lust, that being vpon a time poured into the brasen mettall that was cast into the forme and similitude of a mare at Olympia, the stone-horses which came nere vnto the said image, were set into such a heat and so farre enraged, that they could nor by any means be held back but they would needs couer the said brasen mare. Moreover, the glew that Carpenters and Ioyners vse, cureth the tooth-ache, if the same be boyled in water, and the teeth annointed therewith, but the same within a little while after must be removed, and the mouth presently washed with wine, wherein were sodden the pill of sweet pomegranats. Furthermore, if the teeth be ill affected, a collum made with goats milke, or buls gale, is thought to be a remedy of great efficacy. Finally, the ashes of the ankle bones of a female Goat whiles they be fresh and new, are counted an excellent dentifrice to whiten the teeth: so are the said bones of all other four-footed beasts, reared or nourished about a ferm house, if they be in like manner calcined: which I note but once for all, because I would not repeat one thing so often.

СНАР. XII.

¶ Remedies obserued out of the bodies of beasts, for the accidents that befall to the visage, necke, and breast.

IT is thought generally, that the skin of the face may be made smooth and without wrinkles: tender and delicate, yea and be kept faire and white, with asses milke: for well knowne it is, that some dainty dames (forsooth) there be, that keep and maintain daily in ordinary to the number just of 500 the Asses for this purpose: according to the first example of the Empresse *Poppea*, wife to *Nero* the Emperor; for she vsed commonly to bath in Asses milke, and deuised whole baines to swim therewith: and euer as shee rode in progresse, or remooued from place to place, she had her curie of the Asses in her traine attending vpon her for no other intent, but onely to wash and bath her body in their milke. As for the pimples and wheales that breake out in the face, if they be annointed with butter, they will weare away and be gone; and the sooner, if *Cerule* or Spanish white be tempered therewith: but pure butter alone without any thing else mingled with it, killeth any fretting humors in the face that be corrosiue, if so be that presently after the inunction, barly meale be cast vpon the place. The gleane of a Cow hauing newly calued, taken whiles it is moist and so applied, is good for any vlcers of the visage. There is another receipt made for this purpose, which may seeme but a fantastical and foolish thing, howbeit, for to satisfie and please in some sort, our fine dames that are desirous of such deuises, I am content to set downe: They say (forsooth) that the pasterne bones of a young white bulkin or steere, sodden for the space of 40 daies and nights together, vtill such time as they be resolved into the liquor, if the face be wet with a fine linnen cloth dipped in the said decoction, it causeth the skin to looke cleare and white, and without any riuels or wrinkles; but the said liniment must be kept all night to the face in manner of a maske. Moreover, they say, that bulls sherne is a excellent complexion forsooth, to set a fresh rosat or vermilion colour in the ball of the cheeke: and the liniment *Crocodilea*, made of Crocodiles ordure, doth it no better: but then they giue order, that the face be washed with cold water both before and after this dressing. The dung of a calfe tempered and wrought in ones hand with oile & gum, is singular good to take away sun-burning, or any thing whatsoeuer whereby the colour is decayed and lost. As touching the vlcers and chaps appearing in the lips or face, the suet of a Calfe, or beasts tallow, incorporat with Goose greafe and the iuice of Basill, maketh a singular pomado to amend and **F**ix and rectifie those defects and imperfections. There is another composition also for this purpose, to wit, calues suet and deeres marrow mixed together, with the leaues of the white Saint *Mary* thistle, punned all together and reduced into a liniment. The same operation hath any marrow, though it be of a cow, and the broth of cow boeufe. The tectars and wild-fires breaking forth about the mouth and nose, there is nor the like medicine againe to be found, to kill and

extinguish, than a glew made of a calues genetoirs, dissolved in vinegar with quicke brimstone, G
and mingled together with a fig-tree branch; with this charge, that when it is fresh made, the
place affected be anointed twice a day therewith. This glew boiled in hony and vinegar, is sin-
gular for the leprosie: which disease, the liuer also of a calfe applied hot, doth cure: like as goats
gal healeth the foule white lepry called Elephantiasis: but an oxe gall and sal-nitre mixed ther-
with taketh away the lepry and the filthy dandruffe appearing in the skin. The vrine of an asse
taken about the rising of the Dog-star, clenseth the face from all spots: so doth the gall as well
of an asse as a bull, vied alone by it selfe, after it hath bin well broken and tempered in water, and
the old skin of the face taken off; but then the patient must forbear to goe abroad either into
the Sun or wind. The like effect hath buls tallow or calues gall, incorporat with the seed of Sa-
norie and the ashes of an Harts horne, if the same be burnt at the beginning of the Dog-daies. H
Asses greafe is a soueraigne thing to reduce vnto a fresh and natue colour, any skars or places
of the skin blemished with the tooles remaining of ringworme, tettar, and leprosie. The gal of
a buck-goat incorporat with cheefe, sulphur vit, and the ashes of a sponge, and brought to the
consistence and thicknesse of honey, taketh away moles and pimples. Some make choise rather
of old galls which hath been long kept to vse in this case, mingling therewith hot brans to the
weight of one obolus, and four times as much of hony; but first the said spots and specks ought
to be plied well with chaufing and rubbing. The suet of the same Goat, tempered with Gith
or Nigella seed, Brimstone, and Floure-de-lys root, is verie effectuall for this purpose. Sem-
blably, it is good for the chaps in the lips, if it be incorporate with Goose greafe, Deeres mar-
row, rosin, and vnquencht lime. I finde it recorded in some Authors, that they who are giuen to
haue red pimples appearing in their face, are disabled for exercising any sacrifices belonging to
Art Magicke.

Art Magicke.
If the tonsils, throat, and windpipe, be either inflamed or exulcerat, they finde much ease by cow milke, or goats milke, fo the patient gargarize therewith warme as it commeth new from the beaſt, or otherwiſe made warme againe afterwards: but goats milke is the better of the twain, if mallows be ſodden therein, and a little ſalt. For bliſters in the tongue and throat, the broth made of tripes is very good to be gargarized: and more particularly, for the inflammations and ſores incident to the tonsils or almonds of the throat, the kidnies of a fox dried are ſingular, if they be beaten into powder and reduced into a liniment with honey. The gall of a bull or goat mixed with hony, ferueth right well for the ſquincany. The liuer of a grey or badger tempered with water and made in manner of a collution, reſiſteth a ſtrong and ſtinking breath: the cankers alſo and ſores in the mouth, are healed with butyr. If a thorne, fiſh-bone, or any other ſuch thing ſticke in the throat, take the dung of a cat, rub & annoint the place wel without-forth, the ſame (by report) will thereupon come vp againe, or paſſe downward. As for the ſwelling wens called the kings euill, either the gall of a bore doth ſcatter and diſpatch; or elſe of a boeufe, if the place affected be annointed therewith warme: for hares rendles tempered with wine and put into a linnen cloth, is good to be applied vnto the ſame onely when they be ſore and run. The aſhes alſo of the houſe both of horſe and aſſe, incorporate with oile, water, and hot vrine, into a liniment, & fo applied, doth reſolue them before they be broken. Of the ſame effect is the aſhes of an Oxe or Cowes clee, applied vnto the place with water: as alſo their dung laid too very hot with vineger. In like manner Goats ſewet with quicke-lime, or their dung ſodden in vineger and the genetoirs of a fox. For this purpoſe, there is much good done with ſope: an inuention deuſed by the French for to colour the haire of the head yellow: made it is of tallow and aſhes: the beſt of all other is that which they make of Beech-wood aſhes and Goats ſuet; and the ſame after two manner of waies; either thicke and hard, or elſe liquid and ſoft: but the one as well as the other is verie much vſed in Germanie, and a great deale more indeed by men than women.

The crickes and pains in the neck, are much assuaged by rubbing the nape of the necke with butter or beares greafe: if the same be stark and stiffe, there is nothing in the world better than beafts tallow, the which, together with oile, is very good for the kings euill beforefaid. The painfull *cramp that draweth a man back, so as he cannot bow his head forward (which convolution the Greeks name Opisthotonos) is much eased by infusing into the eares thevrine of a shee goat, or with a liniment made with their dung and bulbe roots.

If the nailles be bruised, it is passing good to tie about them the gal of any beast whatsoeuer. As

A As for the risings and fore excrescences about their roots, bulls gall dissolved in hot water, and so applied, easeeth that grievance: some there be who put thereto brimstone and alumne, of each a like weight.

Moreover, it is said, that a wolues liuer taken in a draught of wine warme, cureth the cough : also a bears gall mingled with hony: or the ashes made of the vppermost tips of a beasts horne : likewise the froth or slauer of an horse mouth: and some say, that be the cough neuer so bad, it will make an end thereof in three daies drinking. Semblably, the lights of a stag, together with the throat dried in the smoke, and afterwards puluerized and brought into a loch or liquid electuary, is good for the cough, and to be taken ordinarily euery day : and for this purpose, the lungs of the spitter in this kind of red deere, is thought to be more effectual. In case a man spit blood,

B the ashes of Harts is much commended: and the rendles of an hares maw taken in drinke to the weight of a third part of a denier, with Terra Samia and Myrtle wine, cureth it perfectly. The ashes likewise of Hares dung drunk in wine late in an evening, staieeth the cough which is busie in the night season: also a perfume made with the hair of an hare, dischargeth the lungs of those tough and viscous humors which stick vnto them, and are not otherwise easily remooued. The purulent vlcers in brest and lungs, remaining after a pleurisie or peripneumony: the strong and stinking breath also proceeding from the lights, are cured most effectually with an electuarie made of butter, boiled with a like quantity of Attick hony, vntill it look reddish, if the patient taketh thereof euery morning the measure of one ligula or spoonfull: some in stead of hony, chuse rather to put thereto the * rosin of the Larch tree, if one do reach or cast vp blood, it is said, that cowes blood, taken moderatly and with vineger, is of great force and efficacy to stay the same: but to think that this is meant of buls blood, were great folly and rashnesse. Howbeit the strong glew that is made of a buls skin, taken to the weight of three oboli in warm water, is soueraigne for an old infirmity of reaching and fetching blood vpward.

CHAP. XIII.

¶ *Receits for the paine of stomacke and loines : also for the infirmities of the reins.*

D I F there be an vlcce growe in the stomacke, drinke the milke of an Affe or Cow, and it will heale it. Stew a peece of boeufe in wine and vineger among, the broth thereof is singular for the gnawing and fretting in the stomacke: the ashes of an Hartts horne is verie good to drie vprheumes and catarrhes, that haue taken a coure thither. As for those that cast vp blood, the fresh blood of a Kid taken to the quantity of three cyaths, with the like proportion of sharpe vineger, and so drunke as hot as may be: the rehdles also of the said Kid drunke with vineger, so as there be two third parts of the vineger to one of the rundles, is a singular remedy for the said infirmitie.

For the griefe of the liuer, caused by obstructions, the liuer of a wolfe dried and taken in honied wine, is a proper receipt. So is the liuer of an Asse being dried and brought into powder with two parts of stone parsley, and so incorporat with three nut kernels and hony, which composition, the patient must vse to eat. In which case, goats bloud is highly commended, if it be prepared so as it may be taken with meat.

Moreover, it is said, that for them who be short winded, there is nothing so good as to drink the blood of wild horses. In the next place to it, great account is made of Asses milke warme, or foddred together with bulbe roots, so that the patient drinke the whey that commeth thereof, putting to three hemines of the blood one cyath of white garden ereffes, infused first in water, and then tempered with hony. The liuer also or lungs of a fox, taken in some grosse wine like Alegant : or a bears gall in water, doth open the wind-pipes stuffed with fleame, and giueth free liberty for the wind to go and come.

Furthermore, Bears greafe is exceeding good for the paines in the reins of the backe, yea and for any place els that hath need of emollitiues, in case it be wel rubbed therewith. Also in these cases, it is thought meet, to take the ashes either of a bores or fowes dung which hath bin long made, and therewith to spice a cup of wine.

But before I proceed any farther, it is to be noted, that Magicians also haue medled with this part of Physicke, and haue deuised frange medicines, drawne from the parts and members of

beasts. And first of all they would make vs beleue, that be a buck-goat neuer so much intraged, G do but stroke him by the beard, he will come into good order and be quiet againe: cut and lop the same off with a paire of sheers, he will not stray away nor depart to another flock. But to return to the griefe of the reins: the Magitians adde to the foresaid medicine, goats dung, which being put into a linnen cloth, and the same well greased, they giue direction to hold in the hollow ball of the hand, as hot as may be indured; with this regard, that if the paine be in the left side, this medicine be made in the right hand, and so contrariwise. Moreouer, the dung or tredsles which must serue this turn, they giue order, that it be gathered and taken vp with the point of a brassen needle or bodkin. Now the foresaid medicine must be held in the hand so long, vntill the patient perceiue that the vapor thereof do pierce as far as the loines: which done, they appoint afterwards to anoint the head with the iuice of leeks stamped: to rub the loines also with H the said dung tempered with hony: giuing counsell, to eat the stones also of an Hare, for to appease the said pain. As for those that be troubled with the Sciatica, they ordaine a cataplasme of oxe or cow dung, to be laid vpon the grieved place; but it ought first to be lapt within some leaues, and so made hot in the embers. For the pain in the kidnies, they giue order to swallow downe the kidnies of an Hare raw, or at leastwise sodden, yet so, as the patient touch them not with his teeth.ouer and besides, they do say, that whosoever haue about them the ankle bone of an Hare, shall not be grieved with the belly ach. As touching the paine of the spleene, the gall of a swine, be it Bore or Sow, taken in drink, or the ashes of Harts horn in vineger, assuageth the same. But the most effectuall and soueraigne remedy of all other, is the milt of an Asse which hath bin long kept; for within one three daies the benefit thereof will be felt, and the patient I shall find ease. Also, for the disease of the spleen, they vse to giue in oxymell, the ordure of an asses sole, which first came from it after it was soled (and this dung the Syrians call Polca;) furthermore, for this infirmity the tongue of an horse which hath bin kept dry a long time, giuen in wine, is a present remedy: and this is a secret which *Caelius Bion* reporteth that he learned of the Barbarians, whiles he conuersed among them. In like manner, a beasts milt whether it be cow or oxe, hath the same operation, if it be vsed in that manner: but say it be fresh and new taken out of the beast, then it ought to be either roasted or sodden, and so taken as meat. ouer and besides, take 20 heads of garlick, pun them all, and after they be bruised, put them into a beasts bladder with a sextar of vineger; apply the same to the region of the spleene, it assuageth the pain. And if all be true that these Magitians say, the milt of a calfe is singular good for the malady of the spleen; but then it must be bought at the same price that the butcher setteth first upon it, without hucking and beating it lower for to haue any thing abated; because in their opinion (so ceremonious they be) therein lieth a great matter. Now when it is thus bought, it would be slit through the length in two parts, & both pieces attached to the shirt of the patient, with this charge, That when he is about to put on his other cloths and make himselfe ready, he suffer the said pieces to drop down to his feet, and then take them vp again, and so dry them in the shadow: for in thus doing, the diseased spleen of the sick party will likewise fall and settle down, so as the patient shall sensibly perceiue himself to be deliuered of that infirmity. Finally, the lungs of a Fox dried in the ashes and so drunk in water, is good for the spleen: as also the milt of a kid, applied to the grieved part accordingly.

CHAP. XIII.

¶ For to stop a lask and knit the belly: for the flux proceeding from the imbecillitie of the stomacke: for the dysenterie or bloody flux: for the ventosities and inflation of the belly: for tumors: the straining vpon the seige without doing any thing: for the wormes in the guts, and for the cholique.

TO stay the running out and extraordinary loosenesse of the belly, these medicines following be conuenient: *Imprimis*, the blood of a stag: *Item*, the ashes of an harts horne: the liuer of a bore fresh and without any salt at all, taken in wine: likewise the liuer of a sow roasted, or of a male goat sodden in one hemine of water: the cruidd rennet in a hares maw, drunk in wine to the quantity of a cich-peafe, or in water, in case the patient haue an ague. Some there be, who put gall nuts thereto, others content themselves with Hares blood alone sodden with milke. Also the ashes comming of horse dung drunke in water: the ashes of that part of a bulls

A bulls horne which groweth next to the head, strewed into a draught of water. In like manner, Goats blood sodden vpon coles. A Goats skin or fell, haire and all boiled together, yeeldeth a decoction which is good in this case to be drunke.

Contrariwise, to loose the belly: the rennet found in a Colts maw: the blood of a femal goat, or els hermarrow or liuer, are thought conuenient laxatiues. *Item*, a plaster made with a wolues gal, together with the iuice of a wild Cucumber, and applied to the nauil. Also a draught either of Mares or Goats milke, taken with salt and hony. The gall of a she-Goat is good for this purpose, if it be taken with the iuice of Sowbread and a little Allum. But some there be who think it better to put thereto salnitre and water. Buls gall stamped and incorporat with Wormwood, made into a round ball, and so put vp in stead of a suppositorie, will giue a stooile, and make the body soluble.

Butter eaten in any great quantity, is good for those who haue a flux occasioned by the weakness of the stomack, and a dysenterie or bloody flux: so is a Cowes liuer: the ashes of an Harts horn, taken to the quantity of as much as three fingers will comprehend, in a draught of water: likewise the rennet of an Hare wrought in dough for to make bread: or if the patient do voyd blood withall, the same ought to be incorporat in parched Barley meale. The ashes of a Bores, Soves, or hares dung, is good to spice a warme potion of wine in these infirmities. Moreouer, an ordinary Veale broth, as it is commonly giuen, is counted one of the remedies for these kind of fluxes about named, whether they come of feeble stomacke or exulcerat guts. But if the patient drink Asses milk for this purpose, it will be the better, if hony be put thereto. Furthermore, the ashes of an Asse dung taken in wine, is as effectual in operation as the rest, for both diseases. As also the first ordure of the Asse sole, which we termed Polea in the former chapter. The cruds or rennet of an horse sole maw, called by some Hippace, is soueraigne for such lasks, yea, though the patient did shere blood vpon the stooile. The ashes also of horse dung, and the powder of Horse teeth is said to be singular: yea, and Calues milk sodden and so drunke. But if the flux do proue to be a dysenterie, Physicians giue aduise to put thereto a little hony: if gripes come thick, they prescribe the ashes of Harts horn, or buls gall tempered with Cumin seed: and the fleshy substance of a Gourd, to be laid in maner of a cataplasme to the nauil. The tender cheefe curd of Cowes milke clysterized, is passing good both for the stomack flux, and also for the bloudie flux. In like sort the butter made of Cows milk taken to the quantity of foure hemins with two ounces of right Terpentine, either in the decoction of Mallows or oile of Roses. The suet of a Calfe, or beasts tallow, is likewise an ordinary remedy in these cases. But diuers there be who seeth the marrow forth as well of the one as the other, with meale, wax, and a little oile, yet so, as the broth be clear, that it may be supped off. Their marrow also is vsually incorporat in the past whereof bread is made, and so taken with great successe. Goats milke sodden vntill the halfe be consumed, is reputed also a proper medicine. And in case the guts besides be wrung & griped, there would be put thereto a little vnpressed wine of the first running, called Mere-goutte: howbeit, some there be who think it sufficient for to appease the torments of the wombe, to drinke Hares rennet but once in a draught of wine warm: but the wiser sort and those that deale more warily, think it good withall to make a liniment of goats blood, incorporat with Barley meale and rosin, & therewith to anoint the belly. And they also aduise their patients for any violent flux of the belly whatsoeuer, to apply thereto soft cheefe: but if the flux be from the stomack, or dysentericall, they prescribe old cheefe to be grated and giuen to the patient in wine, with this proportion, that in 3 cyaths of wine there be a third part of cheefe. Goats blood boiled with this marrow, is singular good for the dysenterie or bloody flux. The liuer of a female goat roasted, is a soueraigne medicine for the fluxions of the stomack, but it were better if the male Goats liuer were taken in drinke after it hath bin sodden in some green and austere wine, or with oile of Myrtles reduced into a cataplasme, and so laid to the nauil: some seeth the same in water, from six sextars to one hemine, and put Rue thereto. Others roast the milt of a goat, male or female (it skilleth not) and vse it for the same purpose, or else they take the suet of a buck goat with bread that hath bin baked on the harth vnder the embers. But about all they hold, that the suet taken from the kidnies of a she goat, & so drunk alone by it selfe, is a singular remedy for these infirmities: but they inioin the patient presently therupon to drinke a little cold water. Yet there be others who ordain the same suet to be boiled in water with fried barley groats, Cumin, Dill, and vineger mixt all together. And they giue order to such as haue the stomack flux to anoint their bellies

bellies with Goats dung sodden with honey. And for both these fluxions, as well from the stomach as the vicer of the guts, they prescribe the rennet of a Kid to the quantity of a Beane for to be drunk in Myrtle wine: also a pudding made of the blood thereof, which kind of meat we call in Latine * Sanguiculus. Moreover for the dysenteric, they ordaine to inject into the guts by a clystire, Bulls glue resolued in hot water.

For any ventosities, Calues dung is holden to be singular good for to resolue them, if it be sodden in wine and the decoction thereof vsed. But if the guts be diseased any waies, the rennet of red Deere is very effectually, sodden with Lentils and Beets, and so eaten with meat. Likewise the ashes of the haire of an Hare boiled with hony. Also to drink Goats milk sodden with Mal-lowes and a little salt put thereto, is good for the said infirmities: but if the rendles be mixed therewith, the operation will be the better. Of the same vertue is Goats suet, taken in any warm supping; with this charge, that the Patient drinke presently vpon it cold water. Moreover, it is said, that the ashes of a kids hanch hath a wonderfull vertue to soulder the rupture, whereby the guts are false downe. Likewise, Hares dung sodden with hony, and taken euery day to the quantity of a Beane, is a medicine for a rupture, so soueraigne, that it hath bin knowne to cure them who were past all hope of remedy. Much commended also is the decoction of a Goats head sodden, haire and all together.

The disease called Tenefmos, which is a desire to go often to the stoole without doing any thing, is cured by drinking of Asfes and Cowes milke.

All the sort of worms bred in the guts, the powder of Harts horn taken in drink, doth expell. There be, as I said before, certaine bones found among the excrements of a Wolfe, which if they be hanged about the arme, do cure the Collicke; if this regard were had before, that they neuer touched the ground. As for Polca (whereof I made mention before) which is the first ordure of an Asse sole, it is singular good in that case. Likewise the powder of a Sows dung taken in the decoction of Rue sodden in water, with Cumin, is singular for the collicke. Finally, the ashes of a yong Harts horne while it is new come vp and tender, incorporat with the shell fishes of Barbary, stamped shels and all together, and so taken in a draught of wine, is highly commended for the passion of the cholicke.

CHAP. XV.

¶ For the dolorous torments of the bladder: for the stone and grauell. The remedies for the infirmities of the members of generation, of the fundaments and the share.

THe vrine of a Bore helpeth those who be tormented with the paine in the bladder, and the stone: yea, and the very bladder of the Bore eaten as meat, is singular good in that respect.

Howbeit, if the one and the other were permitted to be consumed before in smoake, you should see a greater operation. Now the said bladder ought to be first sodden & then eaten: and if a woman be troubled with the said griefs, she is to chuse the bladder of a wild sow. There be found also in the liuers of Swine certain little stones, or els hard callousities like vnto stones, and white of colour, such as we may see daily in our tame swine: which being beaten into powder and drunk in wine, do expell the stone and grauell within our bodies. And verily the Bore feedeth himselfe so far forth charged with his own vrine, that vnlesse hee be deliuered thereof be-fore, he is not able to flie before the chase, but suffereth himselfe to be taken as if he were inclo- sed and fast bound within net and toile: and they say that his vrine doth burne him within. The kidnies of an Hare kept vntill they be dry, then made into powder and drunk in wine, doe thrust forth the stone. In the pestle and gammond both of a swine, there be certain ioint whirrbones as I haue said before, which if they be sodden, do yeeld a broth that is very good for the easie pas- sage of vrine. Likewise, the reins of an Asse dried, pulverized, & giuen in pure wine of the grape, do cure the diseases of the bladder. The suets or rugged werts in horse legs & the corns about their hoofs called Lichenes, drunk either in simple wine or meath for the space of 40 daies to- gether, do expell the stone and grauell engendred in the body: the ashes also of an horse house, ta- ken in wine or water, is good in that case. In like maner Goats dung drunk in honied wine, is sin- gular for those accidents; but especially that of the wilde Shamois is much more effectually. Moreover, the ashes of Goats haire is thought to auaille much in these diseases.

As

As touching the botches and carbuncles which arise in the priuie members; the brains and blood of a Bore or Sow are thought to be proper remedies for them: and say there be some can-kerous or corroding vlcers in those parts, the liuer of a Bore or swine burned in a fire made prin- cipally of Iuniper wood, together with the Papyr reed and Arsenicke, doth heale the same: so doth the ashes of their dung. Or els take a Cow or Oxe gall and Egyptian Allum, wrought and incorporat together with * Myrrh, to the consistence of honey. Beets also sodden, yea, and their flesh boiled in wine and so applied as a cataplasme. In case they be running sores: the suet and marrow of a calfe boiled in wine, or Goats tallow tempered with hony and the iuice of the bri- er, are reputed to be soueraign. Now if the said sores spread farther still, it is said, that their dung incorporat with hony or vinegar, doth much good: as also butter and nothing els simply applied to the grieved place. If the cuds do swell, the suet of a calfe made into a liniment, with sal-nitre put thereto, keepeth downe the tumour. Of the same operation and effect is the dung also of a Calfe boiled in vinegar.

Such as cannot hold their vrine, but that it passeth from them against their wills, finde great helpe by eating of a Bore's bladder roasted or broiled. And verily the ashes of a Bore's or Sows cleyes, is singular good against the involuntary shedding of vrine, if a cup or drinke be spiced therewith for the patient to take. Likewise, the bladder of a Sow burnt and giuen to drink, ser- ueth well in this infirmity: so doth the bladder of a kid, or the lungs in that manner vsed. Fur- thermore, it is said, That the brains of an Hare taken in wine, is singular to helpe this infirmity. Semblably, the stones of an Hare broiled and eaten, or the rennet in the Hares maw, incorporat with Goose grease in Barley groats. The kidnies besides of an Asse, reduced into powder and drunk in pure wine of the grape. The Magitians haue a deuise by themselves, and they affirme, That for to hold ones vrine, it is passing good to drink the ashes of a Bore's pizzle in sweet wine: but they instruct the patient withall, to make water in a dogs kenel, and in so doing, to say these words, *I do this, because I would not pisse my bed as the dog doth his couch*. Thus much for the inconti- nency of vrine. Now if one be pent and would gladly void vrine, let him take the bladder of a Swine, so that it neuer touched the ground, and apply the same to the share, for it will prouoke the water to passe.

But to come vnto the diseases of the * seat: there is nothing so good for them as Bears gall, incorporat together with their grease. Some put thereto litharge of siluer and Frankincense: in which cases butter is very good, if with Goose grease and oile of Roses it be reduced into a lini- ment: the consistence or thickenesse of which composition, must be such as the grieved place will admit; namely, that it be gentle and smooth, so as there be no paine in the anointing. Also Buls gall is a soueraigne medicine applied thereto vpon soft lint: for it wil quickly skin the chaps and clefts in the fundament. If that part be swelled, the suet of a Calfe is very good to anoint it therewith: but if the tumors appeare about the share, then there would be Rue iointed thereto: as for other infirmities incident to those parts, nothing better than Goats blood, tempered with parched Barly meale. In like manner, for the hard knobs in the seat called Condylomata, Goats gall by it selfe is a speciall remedy: so is the gall of a Wolfe tempered in wine and so applied.

For the biles and impostumes rising in any place therabout, there is not a better medicine to scatter and dissolue them, than Bears blood or Buls blood, dried first and so beaten to powder. But the soueraigne remedy of all others, is the stone which a wilde Asse is said to void with his vrine, at what time as he is killed in chase: which stone as it commeth first forth of his body, seemeth very liquid and thin, but being shed once vpon the ground it groweth thicke and hard of it selfe. This stone tied to the twist or inward part of the thigh, is said to dispatch all collection of humors that might ingender biles and botches; or at leastwise so to resolue them, that they shall neuer impostumat and come to suppuration. This stone is very rare and hard to be found, for it is not in euery wild asse: but surely famous it is and much spoken of by reason of this me- dicinable property that it hath. Moreover, the vrin of an Asse together with Nigella, otherwise called Gith, is singular good in these cases. Likewise a liniment made with the ashes of an horse house incorporat together with oile and water: so is the blood of any horse, but especially of a stallion: the blood also and gal of a Cow or Oxe. Their flesh moreover, which we call boeuf, hath the same effect, if it be laid warme vnto the place. The ashes also of their cleies tempered with water and hony. The vrine of the Goats; the flesh of the male Goats boiled in water. In like man- ner their dung sodden with hony. Bears gall or the gall of a bore: last of all, the vrine of a Sow applied

* Somerred
Maringe, in
pickle or
brine.

* That is to
say, it is blind
hemorrhoids,
chaps, fissures,
and swelling
biggs.

moued before seuen firs be past. Now tell me (I pray you) what was he that could find out this secret first? Gladly would I learne what reason there is in this mixture, and why an owles clay or toe was chosen aboue all other for this purpose? Certes, there be some of them yet more modest than their fellows: and they haue giuen out, That the liuer of a Cat killed in the wane of the Moone, laid vp in powder with salt, is to be giuen in a draught of wine a little before the access or fit of a Quartan. And these magitians haue yet another pretty receipt against such agues: for they take the ashes of a Cow or Oxe mucke, and sprinkle it wel with the vrin of a yong boy; wherewith they annoint the toes of the patient: but to his hands or arms they bind the heart of an Hare, which done, they ordain also to giue him before the fit, the Hares rennet in a draught of drinke. To conclude, they say, that a fresh greene cheefe made of Goats milke, out of which the whey hath bin well pressed, is singular to be giuen in hony.

CHAP. XVII.

¶ Proper remedies against the trouble of the braine by reason of Melancholy; against the lethargie, dropisie, shingles, and S. Anthonies fire. Also for the paine of the sinewes.

THe dung of a Calfe sodden in wine, is an excellent remedy for those who are giuen to melancholy. For to raise and awaken them that are in a lethargie, there is not a better thing than the rough werts growing vpon an Asses leg, if the same be tempered with vineger in to a liniment, and the nostrils anointed therewith: also the perfume of the horne or haire of a Goat: yea, and a bores liuer which is the cause that it is giuen ordinarily to those that haue the drowfie disease, and be alwaies sleepe.

For the phthisicke, the liuer of a wolfe sodden in wine is very good: likewise the lard of a lean running sow feeding only vpon grasse: as also Asses flesh sodden and eaten with the broth: and verily in Achaia this is the principall course they take for the cure of that disease. Moreover, it is said, that to receiue through a pipe or reed the smoke of the dry dung made by Cow or Oxe lying forth and feeding only vpon green grasse, is very wholesome for those that haue the phthisicke or consumption of the lungs. Also there be who calcine the tips of Boeufs horns, & taking the measure of two spoonfulls of the ashes, incorporat the same with hony, make it vp into pills, and so swallow them down for the said malady. Many there are who affirm, That the phthisicke and cough be cured by eating a kind of pottage made with Frumenty corne and goats suet: and they hold opinion, That the said suet taken fresh and sweet and so dissolved in mead, with this proportion, that to euery cyath of the mead there be put an ounce of suet, and that order be taken to mingle them thoroughly well, with a branch or sprig of Rue among, is a foueraigne medicine for those infirmities. There is one writer of good credit & authority, who vpon his certain knowledge doth auouch, That there was one so far gone in a phthisicke, that he was giuen ouer by the Physitians, & yet he recovered by drinking the suet of a Shamois or wild goat, together with milk, of each one cyath at a time. Others say, that much good hath bin found by drinking in sweet cuit, the ashes of swines dung, as also by the lungs of a red Deer, especially the Spitter of that kind, dried in the smoke, reduced into powder and so drunke in wine.

In case of the dropisie, the vrin of a Bore found in his bladder giuen to the patient in drink by little and little, helpeth very much: but of greater efficacy it is, if the same be permitted to drie within the bladder. Furthermore, the ashes of Harts dung, & namely of that Deer which is called the Spitter: as also of Neats dung, such I mean as go abroad and feed with the heard (& that they call by a peculiar name * Bolbiron) is a foueraigne remedy for the dropisie. Mary, if the patient be a woman, there must be choise made of cow dung; but if a man, the dung of the other sex is to be taken: and this I may tel you is such a secret mystery, that the Magitians would not haue to be reuealed & made known. Many other medicines there be for the dropisie, to wit, the dung of a Bull calfe vsed in a liniment: the ashes of a calves dung drunke in wine, with an equall quantity of the wild parfneep seed: goats blood together with the marrow, eaten with meat: it is thought that this blood will worke the better, if it be taken from the male Goats; provided alwaies, that they feed vpon the Lentisk tree, and then no doubt it will do the deed surely.

As touching S. Anthonies fire, the shingles, &c. the meanes to quench the same, is to annoint the place with Bears greafe, and especially the fat that is found about the kidneys: also with the greene

A greene dung of a calfe, cow, or oxe. Some vse hard cheefe made of goats milke and porret together: also the fine scrapings of a stags skin fercht off with a pumish stone & brought into powder, and so applied with vineger. For the rednesse of the skin with much itching, the some of an horse mouth, or the ashes of his house, is a singular medicine. If there be any wheals or small pox proceeding of fleam, do annoy the skin, no better thing than a liniment made of asse-dung ashes incorporat in butyr: say these wheals or pimples appear blackish and swert by reason of melancholy, dry cheefe made of goats milk brought into an ointment with hony and vineger, is good to rub the body withall in a bain or hot house, without any vse of oile at all. For blisters and angry meazils, the ashes of swines dung are thought to be very meet: as also the ashes of harts horn, so that the place be rubbed with them and water together. If there be any dislocation or bone out of ioint, the green dung of a bore or sow is good to be applied: so is that of a calfe: the some frothing from a bore, laid to the place with vineger: and goats dung with hony.

There is not a better thing to bring down any swelling, than a cataplasim of raw beefe: and as for any hard tumors, swines dung made hot and dried in an earthen pot-sheard, or vpon a tile, is excellent to discusse and resolute them: the greafe of a wolfe is exceeding good to break any impostumation that is grown to ripenesse: so is neats dung made hot vnder the embers: or goats treddles sodden in wine or vineger: as touching fellons & such like apostumations, boeuf tallow with salt is much commended for to resolute them: & if the place be much pained, it were good to dip the said tallow in oile, and to melt the same without any salt: and in like manner is goats suet to be vsed. For a burn or scald, there is a proper salve made of bears greafe and lilly roots: for which purpose, the dung of bore or sow that hath bin long kept, is very good: so is the ashes of their bristles (such as pargettars whiting brushes be made of) wrought and incorporate with greafe: also the ashes of a beatts ankle or pastern bone tempered with wax and the marrow either of a deere or bull: like as the dung of an hare. And verily, goats treddles are so accomodate to this cure, that (by report) they will heal a burn without any skar at all. The most excellent glew is made of the ears and pizzles of bulls: and there is not a better thing in the world than it, for to heal any place burnt or scalded; but nothing is so much sophisticated, what with other old skins and hides, and what with old shoes and such like lether, boiled again and made into glew. The most fast and strongest glue which a man may trust vnto, is made at Rhodes, and that is it, which painters & physitians most vse: the whiter that the same is, the better it is esteemed: that which looketh black, and is hard withall and brittle like wood, is reiected.

It is thought, that for the pain of the sinewes, goats dung boiled in wine with hony is soueraigne, yea though a nerue began to putrifie: convulsions, crampes, and spreines of nerues vpon some violent stroke, are cured with bores dung gatherd in the spring & so dried. After the same manner, such as be ouerstrained and plucked with the draught of any charriot, or wounded with the wheels going ouer them; and generally, how soeuer the blood be settled black vnder the skin by confusion or bruise, if the places be anointed with the said dung, though it were greene and fresh, much ease and help insueth therupon: howbeit, some think that it were better to seeth the dung first in vineger: and others reduce the same being drie into powder, and promise them that be either bursten, wounded and bruised inwardly, or haue bin ouerthrown and saln from on high if they drink it in vineger, that they shall haue help thereby. But the better, and those that loue not to make the greatest boast of their medicines, vse the ashes thereof with water. And verily it is said, that the Emperor Nero was wont in this kind of drink to take great pleasure, and with it to refresh himselfe, when his purpose was by that means to win a name, and approue himselfe a doubtie wight, in running with coaches in the great cirque or shew place. To conclude, next to the dung of a bore, is commended that of a sow or any other hog, and thought to be in a second place of operation.

CHAP. XVIII.

¶ Medicines to stanch blood: to heale vlcers, cancerous sores, and the wild scab: also what medicines they be that draw thorns, pricks, or what soeuer sticketh within the flesh. Finally, proper receipts to cicatrize and skin a wound or sore.

THe rennet of any Deere or a Hare, vsed in vineger, stancheth blood. The ashes also of the haire of an hare: likewise of Asses dung: yea and the very ashes of their haire made into a liniment with any conuenient liquor, hath the same effect: but if you would haue it work

more effectually, chuse these excrements of the male asse, mix the same with vineger, and apply it with wooll; for it will stay any flux of blood whatsoeuer: likewise if it be of the haire which is curried from the horsehead or buttock when he is dressed: or els the ashes of calues dung tempered with vineger, and so applied vnto the place. In like manner the ashes of the goats horn or dung, with vineger; and yet the blood that issueth out of a buck-goats liuer when it is sliced and cut in sunder, is more effectually: but the ashes of them both, as wel the male, as female; the liuer and the blood drunke in wine, or applied vnto the nostrills with vineger, is of vertue to staunch blood. Moreover, the ashes only of a leather wine bottle made of a male goats skin, mixed with an equall quantity of rosin, doth not only stop an issue of blood, but also conglutinat and heale a wound. Furthermore, the rennet of young kids, with vineger; the ashes also of their haunches burnt, is thought to haue like operation in stanching of blood. If there be any vlcers vpon the shins or any part of leg & thigh; bears greafe & red oker incorporat together into a salue, doth heale the same: but in case the said sores be corrosiue and eat farther, the gal of a bore with rosin and ceruse, cureth the same: so doth the ashes of a bores or sows cheek: likewise swines dung dried and applied to the grieved place: as also goats treddles warmed well ouer the fire with vineger, and laid too accordingly. But for to mundifie and incarnat all other sores, they vse butter, the ashes of a stags horn, or the marow of red deere; buls gall likewise, with the oile of the plant Cypros, or els the dung of a goat, male or female it skils not whether. If there be a wound made by sword or edged weapon, there is good means to heal it with the fresh dung of swine, or els the powder thereof being long kept and dried, if the place be dressed therewith. In case there be an vlcere that eateth deep to the very bone, or an hollow fistula, it is good to iniekt into it with a syringe, a buls gall, with the juice of leeks or breft milk: or els to dresse the same with the powder of his blood dried, incorporat with the herb called Vmbilicus Veneris. Is the same cancerous? the rennet of a leueret with the herb Capers, taken of ech a like quantity, & sprinkled with wine doth cure it. If it grow to mortification & proue a gangrene, it is good to anoint the place with bears gall, with a feather. As for corroding vlcers which spread still farther, no better thing to repress them, than to strew vpon them the ashes of an asse-hoofe. The blood of an horse is corrosiue, by vertue whereof it doth eat away and consume the excrescence of proud flesh; so doth the cinders of old horse dung burnt: as for those kind of fretting cankers which the Greeks call Phagedanae, the ashes of a boeuse hide mingled with hony, doth cure and heale perfectly. The application of raw veale vnto a green wound, keepeth it from swelling: and a cataplasm of beasts dung and hony together, doth the like. But say the vlcers be maligne and filthy morimals, such as the Greeks call Cacoethe, the ashes of a leg of veale incorporat with womans milk, do heale vp cleane. Fresh wounds occasioned by sword or edged weapon, buls glue dissolved or melted, & so applied, doth cure very wel, so it be not removed vntil the third day. If a sore need to be clenfed, dry cheefe made of goats milk, tempered with vineger & hony, is a singular mundificatiue. An vlcere giuen to go farther, and to eat as it goeth, is repressed by applying tallow thereto and wax incorporat together: put to it pitch and sulphur, it will heale and skin the same throughly. In like manner, for the vntoward morimals before said, which they call Cacoethe, it is very good to lay a pultus made with the ashes of a kids leg and breft-milke. As for carbuncles, take the brains of a tame fow, rost the same and apply it vnto the sores, it is a soueraine remedy. Touching the scabs that men be subject vnto, there is not the like medicine for killing the same, to the marow of an asse: & a liniment made with the vrin of the said beast together with the earth vpon which he hath staled. Butyr likewise is very good in that case, as also for the farcins, fullanders, and mallanders in horses, if it be applied therto with rosin made hot: so is strong buls glue dissolved in vineger, with quick lime put thereto: also goats gall tempered with the ashes of a lume calcined. For the red blisters and meazils likewise, there is not a better medicine than the dung of a cow or ox, and therupon they tooke the name of Boe. The mange in dogs, is healed with beasts blood, so they be bathed therewith whiles it is fresh and warm; and after the same is dried vpon the body, to follow it a second time the same day: & the morrow after to wash them throughly with lie made of strong ashes.

If thorns, spils, bones, and such like things haue gotten into the flesh and there sticke, cats dung is very good to draw the same forth: likewise the treddles of a goat with wine. Any rendles also, but especially that which is found in an hares maw, serue in that case, reduced into a salue, with the powder of frankincense and oile; or else with the like quantity of birdlime, or the cer-

reous matter in the Bee-hiue called Propolis.

Furthermore, the greafe of an asse is singular to reduce any swert sploches and black skars to a fresh and natue colour; which, if they ouergrow the skin about them, are brought downe and made more euen and subtile, by an inunction of calues gall: but the Physitians prepare the sayd gall with an addition of myrrh, hony, and safron, and then put it vp in a brazen box for their vse: yet some there be, who mingle with the rest verdegis or the rust of brasse.

CHAP. XIX.

Receipts appropriat to the maladies of women, and the diseases of sucking babes: also remedies for them that are unable to performe the act of generation.

TO begin with the naturall course of womens purgation: the gall of a bul or ox, applied to their secret parts in vnwashed greafe wooll, is very effectual to bring the same down. The skilfull midwife of Thebes, *Olympias*, vsed to put thereto * hyssope and sal-nitre. For this purpose, hartshorne burnt to ashes is very good to be taken in drinke. But if the matrice be out of order and vnserled, it is not amisse to apply the same ashes vnto the naturall parts: yea and buls gall together with * Opium to the weigh of two oboli; or else perfume their secret parts with a suffumigation of deers hair. Moreover, it is said, that the hinds when they perceiue themselves to be incalf, swallow down a little stone, which is singular good for women with child to carry about them, that they may go out their full time: and therefore much seeking there is after this stone, which is commonly found among their excrements at such a time; or else in their womb, if haply they be killed with calfe, for then it is to be had there also. Moreover, there are found certain little bones in the heart and matrice of an hinde, and those bee passing good for great bellied women, and such as be in trauel of child-birth. As for that stony substance resembling a pumish, which in like manner is found in the wombe of kine, I haue spoken already in my discourse of Kine, and their nature. If the matrice of a woman be growne hard, and haue a scirrhe in it, the fat of a wolfe will mollifie it: if it be grieved with paine, the liuer of a wolfe assuageth the same. When women be neare their time, and ready to cry out, it is good for them to eat wolues flesh: or if when they fall first to trauell, there be but one by them who hath eaten thereof: & this is such an effectual thing, that if they were forespoken, or indirectly dealt withall by sorcery & witchcraft, this is thought to ease them of paine, and procure them speedy deliuerance. But in case such a one as hath eaten wolues flesh, chance to come into the chamber when a woman is in the mids of their trauell, she shall surely haue a hard bargaine, and die of it. Moreover, great vse there is of the hare in all womens infirmities; for the lungs of an hare dried, made into powder, and taken in drinke, is comfortable to the matrice, and helpeth it in many accidents thereof: the liuer drunk with Samian earth in water, staith the excessive flux of their fleurs: the rennet of their maw fetcheth away the after-birth when it staith behind; but then in any wife the woman must not bathe or sweat in bain the day before the same rennet applied as a cataplasm vpon a quilt of wooll, with Safron & the juice of porret, forceth the dead infant within the mothers wombe to come forth. Many are of opinion, that if a woman eat with her meat the matrice of an hare, she shall thereupon conceiue a man child if she company with her husband. And some say, that the genetours of the male hare, yea & the rendles, are good for that purpose. And it is thought, that if a woman who hath giuen ouer bearing children, doe eat the young leueret taken forth of the dams belly when she is newly bagd, she wil find the way again to conceiue & breed freshly as before: but the magitians do prescribe the husband also to drinke the blood of an hare, for so (say they) he shall sooner get his wife with child. And they affirme moreover, that if a maiden be desirous her breasts or paps should not grow any more, but stand alwaies at one stay, knit vp round and small, she is to drinke 9 treddles or grains of hares dung: and for the same intent, they aduise a virgin to rub her bosom with a hares rennet & hony together: also to anoint the place with hares blood, where the haire is plucked off, if they be desirous that it should not grow again. As touching the ventosities and inflation of the matrice, it is good to vse thereto a liniment made of bores or swines dung, incorporat with oile: but in this disease, it were better for to repress the said windines & flatuosity, to spice a cup with the powder of the same dung dried, & giue it to the woman to drinke; for whether she be vexed with wrings whiles

Eg 2

* *Hyssopus*, some read *Oxy-
spermum*, which the Apothecaries call *Hyssopus humida*: & is nothing else but the greasy slich & sweat tried out of the wool growing in sheeps flanks.
* *Opio*, some read *Opio*, & *Perley*.

within silver & so caried about one, is of great power in this case, as *Osthanes* mine author saith. But *Salpe* (a famous courtizan) giueth direction to plunge the genitall member of this beast seuen times together in hot oile, and with the said oile to anoint the share and parts therabout. *Bialcon* aduiseeth to drinke the ashes of the said member, or the stale of a bull presently after hee hath done his kind to a cow, and with the earth that is moistened and made mire with the said stale, to anoint the priuy parts. Contrariwise, there is not a thing that cooleth the lust of a man more, than to annoint the said parts with the dung of myce and rats. To conclude, for to auoid drunkenesse, take the lungs of an hog, be it bore or sow it matters not, in like manner of a kid, and rost it, who soeuer eateth thereof fasting, shall not be drunke that day, how liberally soeuer he take his drinke.

CHAP. XX.

¶ Strange and wonderfull things obserued in beasts.

THere be other admirable properties and vertues reported of the same beast, ouer & besides those before rehearsed, for it is said, that whosoever do find and take vp an horse shoe shaken from the house (an ordinary thing that happeneth vpon the way when a horse casteth his shoole) and lay the same vp, they shall find a remedy for the yox, if they do but call to mind and thinke vpon the place where they bestowed the same. Also, that the liuer of an Hare is in this regard for curing of the hicket, like to an horse shoole. Moreover, if an horse doe follow in chase after a wolfe, and chance to tread vpon the tracks where the wolfe hath run, he will be broken winded and burst, euen vnder the man vpon his backe. It is thought moreover, that the anke-bones of swine, haue a property to make debate and quarrels. Also, when any sheep-pens or oxe-stals be on a fire, if some of the dung be cast forth, the sheepe and oxen that be within will sooner be gotten and drawne forth, and neuer come thither again. Furthermore, that goats flesh will haue no ranke smell or taste, if so be the same day that they were killed, they did eat barley bread, or drinke water wherein Laser was infused. Besides, that no flesh which is powdred well with salt in the wane of the moone, shall euer corrupt and be subiect to worme or maggots. But see how diligent and curious our ancestors haue bin in searching out the secrets of euery thing; inso much as we find obserued by them, That a deafe Hare will sooner feed and grow fat, than another that heareth.

And to come vnto leechcraft belonging to beaſts : it is ſaid, that if an horſe void blood exceſſiuely, it is good to poure or iniekt into the body, hogs dung with wine. As for the maladies of kine and oxen, tallow, fulphur-vif, crow garlick, a foddren[hens] egge, are ſingular good medicines to be giuen euery one of them beaten together in wine: the ſaf also of a fox is good in that caſe. If ſwine be diſeaſed, the broth made of horſe-fleſh foddren, is very good to be giuen them in their waſh to drinke. And in what diſeaſe ſoeuer it be of all four-footed beaſts, there is not a better remedy than to ſeeth a goat all whole, in the very ſkin, and a land roaſt together. Also it is ſaid, that a fox will not touch any cockes, hens, or ſuch like pullen, that haue eaten (before) the dried liuer of a Reinard; nor thoſe hens which a cock hauing a collar about his necke of a Fox ſkin, hath troden. The like effects are reported of a weazils gall : as alſo that kine and oxen both in the Iſle Cyprus, when they are troubled with the belly ach, cure themſelues with eating the excrements of a man : that the cleyes of kine and oxens feet will not weare to the quick nor be ſurbated, if their horns before were anointed with tar : That wolues wil not come into any lordſhip or territory, if one of them be taken, and when the legs are broken, be let blood with a knife by little and little, ſo as the ſame may be ſhed about the limits or bounds of the ſaid field, as he is drawne along, and then the body be buried in the very place where they began firſt to dragge him. Others take the plough-ſhare from the plough wherewith the firſt furrow was made that yeare in the field, and put it in the fire burning vpon the common hearth of the houſe, and there let it lie vntill it be quite conſumed : and look how long this is in doing, ſo long ſhal the wolfe do no harm to any liuing creature within that territorie or lordſhip. Thus much by way of digreſſion : now it is time to returne to the diſcourſe of thoſe liuing creatures which be rauaged in their ſeueral kinds, and ſuch as are neither tame nor ſauage.

THE TWENTY NINTH BOOK
OF THE HISTORIE OF NATVRE,

WRITTEN BY C. PLINIUS


SECVNDVS.

CHAP. I.

C ¶ *The Originall of Physicke. When Physitians began to vifit the ficke in their houfes. When came vp first The manner of * curing difeafes by outward application of Ointments and by frictions. Of Chryfippus and Eraſiſtratus. Of the * Empricke praſtiſe of Phyſicke. Of Herophilus and other famous Phyſitians. How many times the order of Phyſick hath bin changed. Who was the firſt profefſed Phyſitian in Rome, and when he began to praſtiſe. What opinion or conceit the antient Romanes had of Phyſitians. Finally, the imperfections and defaults in this art of Phyſicke.*

This course in
practice was
called *Clinica*,
δοτ. κλινικῆς;
i. e. τοῦ κλιν. i. the
bed or bed-
chamber.

* Iatroleptice,
do te iſt
heipere, vel
heimens, quafi
medicina vna
guentaria.
* Emptice,
do t'empitati-
i. Experimentia.
When Phyfi-
cians cure by
experiments
only of medi-
cines, without
regard of the
caufe of the
diſeaſe or na-
ture of the pa-
tient.

D  Headmirable nature of a number of medicines, as wel those which I haue already shewed, as those which remain as yet to be handled, forceth me to write yet more of Physicke, and to found to the very depth and bottome : albeit I know full well, that there is not a Latine writer who hath trauelled hitherto in this argument, and am not ignorant how ticklish and dangerous a point it is at first to set abroch any new matters, especially such, whereby a man is sure to reape but small thanks, and in deliuerie whereof, is to make account of a world of difficulties. But forasmuch as it is very like that those who are well acquainted with this study, will muse how it is come about, that the remedies drawn from simples, so easie to be found and so accommodat to maladies, are cast behind and grown out of vse in the practise of physick, it cannot be, but withall they must maruell much, and think it a great indignity, that no science and profession in the world hath had lesse soliditie in it and bin more vnconstant, yea, and how it daily changeth still, notwithstanding there is not any other more profitable and gainfull than it.

But to enter into the discourse thereof, First and foremost, the invention of this Art hath been fathered vpon the * gods, such I mean as are canonized gods in heauen: yea, and euen at this day: we haue recourse stil vnto diuine Oracles for many medicines. Moreover, the fabulous tales deuised by Poets haue giuen a greater name and reputation thereto, in regard of the offence committed by *Aesculapius* in raising prince * *Hippolytus* again to life: for which bold part of his, *Iupiter* being highly displeased, smote him dead with lightning. And yet for al this, Antiquity hath not staied there, but made relation of others, who were reuiued by the means of the said *Aesculapius* or his art: which during the * Trojan war, whereof the fame and bruit is more certain, grew into much request and estimation: and yet in those daies there was no other part of Physicke professed and practised, but Chirurgery, and that in the cure of wounds only. But in the age ensuing, and for many a yeare after, wonderful it is, in what obscurity this noble science lay dead, and as it were buried in darknesse and obliuion, euen vntill the famous Peloponnesiacke war: for then arose *Hippocrates*, who reuiued and set on foot againe the ancient practise of *Aesculapius*, so long forelet: and being borne in Coos, a renowned and wealthie Island, altogether deuote and consecrated to *Aesculapius*, he made an extraict of al the receipts, which were found written in the temple of the said god (for the maner was in that Island, that whosoever were cured and deliuered of any disease, registred there vpon record, the experiments of medicines whereby they had remedy;

* Such as bath
in cold water,
be called by
Seneca, *Psy-*
chrolon.

foone after, when hee was knowne once to carry a cruell hand ouer his poore patients, in cutting, lancing, dismembred, and cauterizing their bodies, they quickly began to alter his name, and to terme him the bloody Butcher or Slaughter-man: whereupon not onely all Physitians, but Physick also grew into a bad name and became odious; as may appeare euidently by the monuments and books of *M. Cato*, a worthy personage, and in regard of whose vertues and commendable parts, his triumph and Censorship, as famous & honorable as they were, deserue the least part of his authority and reputation; so much was there in himselfe, about the gifts and graces of Fortune. I will therefore insert in this place, word for word, an Epistle of his vnto his sonne *Marcus*, touching this matter, wherein he thus writeth: *Concerning these Greckes (sonne Marcus) I will write in place and time convenient, what I haue found out and knowne by them in Athens: and namely, that it were good to looke into their books and reade them (as it were) by the way, but in no wise to study vpon them much and learn them thoroughly. I haue already giuen the attempt, and intend to conuince and put downe the wickedest race and most peruerse and obstinat kind of them. And learne this of mee, as from the mouth of a true Prophet, That whensoever this Greekish Nation shall bring into Rome their Philosophie, they will corrupt and marre all: but let them send once their Physitians hither, you shall see a greater wrecke and confusion thereby. For I assure thee, they haue complotted and sworne one to another for to murder all * Barbarians by means of their Physicke. And euen to effect and bring this about, they will be fed also and take money, to the end, that both we should trust them the rather; and they also haue the better meanes to worke the feat and dispatch folke with more facility. As for vs, it pleaseth them vsually to name vs Barbarians; yea, and they giue vnto vs more filthy termes than any others, and mis-call vs * Opiques. Well, remember thou once for all, that I haue giuen thee warning of their Physitians, and forbidden thee to be acquainted with them.* Now *Cato*, who wrote this letter, died in the six hundred and fifti yere after the foundation of our city, when himselfe was fourscore yeres old and fise: whereby a man may see that he wanted not grounded knowledge when he deliuered this speech vnto his sonne, for hee had both the practise of former times in publicke affaires, and age sufficient of his owne to furnish him with experience of priuat examples. What say we then to this resolution of his? Are wee to judge and beleue that hee hath condemned thereby a thing so necessary and profitable as Physicke is? God forbid: for himselfe setteth downe a little after, what Physick, and what medicines both he and his wife were acquainted with, and by meanes whereof they came to be so aged as they were: and those were no other (verily) but the vse of simples, whereof wee now are in hand to treat. He saith moreover and professeth, that he hath made one Treatise expressly, containing certaine receipts for the cure of his son and seruants, and for the preseruatiue of their health: the which I haue not omitted, but dispersed here and there, according to the occurrences of accidents and diseases of sundry sorts, whereof I haue had some occasion to speak of, and stil shall haue more, whereby it is plain, that our ancient forefathers blamed not the thing it selfe, I meane, Physicke, and medicines, but the Art and cunning of Physitians, who had the handling thereof. And most of all, they held off and were afraid to entertaine those amongst them, who sought such exceeding gaines for their handi worke, especially where they endangered their liues withall. And that they made some account of Physicke, may appeare by this, that when they receiued *Esculapius* as a canonized god into their Kalender, they built one temple for him without the city of Rome: yea, and the second which in his honour they erected, was situate within the Island apart from other buildings. Also at what time as by vertue of an edict all other Grekes were banished Italy, Physitians were excepted; and that was many a yere after *Cato* his time. And here by the way, one word will I speake to the honour of our Romanes for their singular wisdom and prouidence; namely, That howsoeuer they are growne to good prooffe and be accomplished in all other Arts and Professions of the Grekes, yet their grauity hitherto hath bin such, as they would not giue themselves to the practise of this only Science. And notwithstanding the exceeding wealth that accrueeth by Physicke, yet very few or none of our naturall Roman citizens haue medled therewith. And those also that haue betaken themselves vnto it, presently haue forsaken their natie language, and gone to the Greek tongue. For this opinion verily there is of this Art, That if the Professors thereof handle it in their vulgar and mother tongue, or otherwise in any other than Greeke, all the authoritie, grace, and credit thereof is lost, euen with those that be altogether vnlearned and know not so much as the Greek Alphabet. See the nature and foolish propertie of our Countrey men, to haue lesse confidence and trust in those things which concerne their life and health, if they be intellegible and deliue-

* That is to say all nations but themselves.

* Opici, were a certain people of Italie, infamous for their vnhonest life and filthy language. *quasi opici*

* Why the temple of *Esculapius* stood without the city of Rome? See *Plutarch* 34 *Questiōnibus Romanorum*.

A deliuered to their capacity, than in others, which they vnderstand neuer a whit! And hereupon verily it is come to passe, that the art of Physicke hath this peculiar gift and priuiledge alone, That whosoever professeth himselfe a Physitian, is straightwaies beleeued, say what he wil: and yet to speak a truth, there are no lies dearer sold or more dangerous than those which proceed out of a Physitians mouth. Howbeit, we neuer once regard and looke to that, so blind we are in our deep perswasion of them, and feed our selues each one in a sweet hope and plausible conceit of our health by them. Moreover, this mischiefe there is besides, That there is no law or statute to punish the ignorance of blinde Physitians, though a man lost his life by them: neither was there euer any man known, who had reuenge or recompence for the euill intreating or misusage vnder their hands. They learne their skill by indangering our liues: and to make prooffe & experiments of their medicines, they care not to kill vs. In a word, the Physitian only is dispensed withal, if he murder a man: so cleare he goeth away without impunity, that none so hardy as once to twir or challenge him for it: but say that one be so bold as to charge them with any vntoward dealing, out they cry presently vpon the poor patients, at them they rail with open mouth, they are found fault with their vnlineesse, distemperature, wilfulnesse, and I know not what: and thus the sillie soules that be dead and gone, are shent & bear away the blame. The decuries or bands at Rome of those knights which are deputed and called Iudges, are not chosen but by an ordinary triall and examination of their estate, quality, and person, and the same by the principal of that order and degree, both taken and approued: streight inquisition there is made of their demeanor from house to house: of their parentage also, yea and true information giuen to the electors before they can be chosen. Mint-masters, such as are to giue their iudgement of mony, and the touch of coin, be not taken hand ouer head: but if any be more skilfull than others therein, they are sent for (rather than to faile) as far as from Calis and the straits of Gilbretar. And for to pronounce sentence as touching the banishment of a Roman citizen, the five deputed or elected delegats (named *Quinqueviri*) had no warrant or decree passed before 40 daies were expired. But for these Physitians, who are the judges themselves to determine of our liues, and who many times are not long about it, but giue vs a quick dispatch & send vs to heauen or hel, what regard is there had, what inquiry and examination is made of their quality and worthines? But surely, wel enough are we serued, and we may thank none but our selues, if we come by a shrewd turn, so long as there is not one of vs hath any care or desire to know that which is good for his life and health. We loue to * walk (forsooth) with other mens feet. * We read, we looke by the eyes of others: we trust the remembrance of another, when we salute any man: and to conclude, in the very main point of all we commit our bodies and liues to the care and industry of others: No reckoning is there now made of the riches and treasure of Nature: but the most precious things indeed which serue for the maintenance and preseruatiue of health and life, are vtterly rejected and cast away: no account make we of any thing and think our owne, but to liue in pleasures and dainty delights. I will not leaue my hold of *M. Cato*, whom I haue opposed as a shield and buckler against the enuie and spight of this ambitious and vain-glorious Art: neither will I giue ouer the protection of that honorable Senat which hath judged no lesse: and that without catching aduantage of the sinfull pranks & lewd parts which are committed and practised vnder the pretence of this art, as some man haply would look that I should set them abroad: for to say a truth, is there any trade or occupation goeth beyond it for poisoning? what is the cause of more gaping and laying wait after wils and testaments, than this? What adulteries haue bene committed vnder the colour herof, euen in Princes and Emperors palaces? as for example, *Eu-demus* with *Livia* the Princeesse, & wife to *Drusus Caesar*: *Valens* likewise with the Queen or Emperesse about named, *Messalina*. But say that these crimes and odious offences are not to be imputed vnto the Art it selfe, but rather to be charged vpon the persons, I meane the corrupt and lewd professors thereof: yet surely I am of this beleefe, that in regard of these enormities, *Cato* was as much afraid of the entrance of Physicke, as of some Queene into the citie of Rome. For mine own part, I mean not to say ought of their extreme auarice, of the merchandise, spoile, and hauocke that they make when they see their patients in danger of death, and drawing to their end; nor how high they hold (as it were in open market) the easement and release of the sicke mans pains, whiles he is vnder their hands, ne yet what pawnes and pledges they take as earnest of the bargaine, to dispatch the poore Patient out of the way at once; and lastly, of their hidden secrets and paradoxes, which forsooth they will not divulge abroad, but for some round summe

* In this place he causeth in the Romanes reeth their *Leu* *Heuery*, *Anag* *nisse*, and *Co* *mentatores*. * *Agnosimus* *in* *quoniam*

summe of money. As for example, that a cataract or pearle in the eie is to be couched rather and driuen down by the needle, than quite to be plucked forth: wherby it is come to passe, that it is a very good turne & the best for vs (as the case standeth) that we haue so great a number of such murderers and theeves in the commonwealth: for I assure you it is not long of any shame and honesty (whereof there is none in them) but their malicious emulation, being so many as they are, that the market is well fallen, and the prices come down of their workmanhip. Notorious it is, that *Charmis* the abouenamed Physitian that came from Marfiles, bargained with one patient that he had, to haue 200000 Sesterces for his cure, and yet hee was but a stranger and a prouinciall inhabitant. Also as well knowne it is, that *Claudius Caesar* vpon a condemnation and judgement, tooke at one time by way of confiscation, one hundred thousand sesterces from one *Alcones*, who was no better than a Chirurgion or Wound-healer: who being confined into France, and afterwards restored, gathered vp his crums again & got as much within few yeares. I am content also, that these faults should be laid not vpon the art, but the men that professe it: Neither verily do I mean to shew and reprove the base, abject, and ignorant sort of that crew: nor how little order and regiment they obserue in the cure of diseases, or in the vse of baines and hot waters: how imperiously they prescribe otherwhiles to their patients most strait diet: and again, when they are ready many times to faint & die vnder their hands for want of sustenance, how they be forced to cram them as it were, and giue them meat vpon meat, oftentimes in one day, before they haue digested the former viands. Moreover, how they do and vndo, altering the manner and course of their proceedings a thousand waies, misliking and bethinking themselves after they haue done a thing: making a mish mash and mingle mangle in the kitchin of those viuals which they ordain for their poore patients: besides a deal of mixtures and sophisticated compositions of drugs and ointments. For there is no superfluity tending vnto vain pleasures and wanton delights that hath ouerpassed their hands. And since I light vpon the mention of these drugs and spices, for mine owne part I am verily persuaded, that our ancestors and forefathers were nothing well pleased with the bringing in of such forrain wares, which beare so high prices and are extream deare: and that *Cato* neuer thought of these drugs and mixtures, nor foresaw these corruptions by them occasioned, when he blamed so much and condemned this art of Physick. Yet see what account there is made of a composition called * Theriacke, deuised onely for excesse and superfluity: composed it is of diuers ingredients far fetcht and deare bought: whereas Nature hath bestowed vpon vs and presented to our eyes so many wholesome simples, and euery one of them by it selfe medicinable and sufficient. Moreover, another antidote and confession there is, consisting of no fewer than 54 sundrie sorts of drugs and ingredients, all of diuers weights, and some of them are prescribed to carrie the poysse precisely of the sixtieth part of one denarius or dram. Now would I gladly know what god he was (for surely it passeth the wit of man thus to dispense the ingredients, and calculat their vertues, to a single scruple) that taught first this subtil and intricat composition: By which it appears manifestly, that this geere bewraith onely a vaine ostentation, and all to giue a glorious and wonderful lustre to the art, for to make it better accepted and more vendible. And yet the very Artists themselves are not wyis so skilfull, as to know that whereof they make profession. For I my selfe haue scene these that goe for Physitians, put commonly into their medicines and receipts *quid pro quo*, and namely, in stead of the Lidian * Cinnabaris, * Minium, which is no better than a very poysen, as I will proue and shew hereafter in my Treatise of Painters colours: which error proceedeth only from this, that they are not well seen in Grammar, nor in the proper signification of words. But these and such like errors touch and concerne the health of euery one in particular. As for those abuses in the art of Physick, which *Cato* feared, foresaw, and would haue preuented, they be such as are nothing so hurtfull and dangerous as the rest, and indeed small matters in the opinion of man: and such as the principall Professors and Masters of this Art do auow and confession among themselves. Howbeit, euery one of these deuises, as harmlesse as they seem to be, haue been the ouerthrow of all vertue and good manners in our Romane State, I mean those things which we doe and suffer in our health: our exercise of wrestling, our greasing and anointing with oile for that purpose, brought in for sooth and ordayned by these Physitians for to preserve our health. And what should I speak of their drie stouues, hot houses, and ardent bayns, which they would beare men in hand to be so good for digestion of meat in their stomackes? Yet could I neuer see any, when he came forth of them vpon his own feet, but he was more heauy, & found himselfe

21. Treacle.

* Sanguis Draconis Sang- dragon La-
* Myrme species,
* a kind of gum,
* Metakiscum,
* mineral Ver-
million,

A himselfe feeblar than before he went in: and as for those who haue bin more obseruant of their rules than the rest, and wholly gouerned by them, I haue known many such caried off for dead, or else extream sicke. To say nothing moreover of the potions and drinks ordained by them, to be taken in a morning fasting, for to vomit and scour the stomack thereby, and all to makeway for to quaffe and carouse again vpon it more lustily. I forbear also to write of their rosins and pitch-plasters deuised by them for to pluck away and fetch off the haire where Nature hath ordained it to grow, whereby they would seem to effeminate our men. I bask also to speak how euery our women haue prostituted their nakednes and priuities vnto them, by occasion of these their wanton deuises. In sum, conclude we may, that considering these enormities and corruptions which haue crept into our life, by nothing more than by the meanes of Physick, *Cato* was a true prophet indeed, and his oracle is verified & fulfilled euery day, when he said, That it was sufficient to look curiously into the writings and witty deuises of the Greeks, without farther studying therupon and learning them thoroughly. Thus much I thought good to speak in iustificati- on of that Senat and people of Rome, who not without great reason continued 600 yeeres with- out the entertainment of Physicians; and against that Art which of all others is most danger- ous and fullest of deceit: in regard wherof, it hath bleered the eyes of good men, and they be those who haue giuen credit & authority thereto. And withall, thus much may suffice to meet with the fond opinion and foolish persuasion of those, who are rauished and caried away with a conceit, esteeming nothing good for the health of man, but that which is costly and pretious. For certes I doubt not, but some there be who will loath these receipts taken from diuers beasts, wherof I shall haue occasion to speak hereafter. But I comfort my selfe again herein, That *Virgil* disdained not to name the very pismires and the weevils; * blind beetles also delighting in darknesse, and their nests wherein they keep, of which he wrote, notwithstanding he was not vr- ged thereto vpon necessitie. Neither did *Homer* think it improper, to * mingle the description of a shrewd and vnhappie flie, euery with the heroicke battailes of the gods: ne yet dame Nature, who hath brought forth and made man, thought it any disparagement to her maiestie for to engender also these fillie and small creatures. And therefore let euery man consider their ver- tues, properties, and effects, and not regard so much themselves. To come then to those things that are most common and known, begin I will at sheeps wooll, and birds eggs, to the end that by that means due honour may be yeilded to the chiefe and principall of all others, as it doth ap- pertain. Howbeit, I must of necessitie speak of some other things by the way as occasion shall be offered, notwithstanding the place be not so proper & fit for them. Neither wanted I means sufficient to furnish this worke of mine with many gallant matters and pleasant discourses, if my delight and mind had been to looke after any thing else but a plaine and true narration, ac- cording to my first dessein and intention: For well I wot, that I might haue inserted here and there, the rare receipts which are reported to be of the ashes of the bird Phoenix, and her nest; but that I know all to be meere fabulous, howsoeuer they carrie a pretence of truth. Besides, I count it a very mockerie and no better, to deliuer vnto the world those medicins which are not to be but once in the reuolution of a thousand yeeres.

* Lucifugis
congesta cubi-
lia blas. is.
* Iliados 6.

CHAP. II. ¶ The vertues and properties of Wooll.

THE ancient Romans attributed vnto Wooll great authoritie, & had therein a certain reli- gious and reuerent opinion of holines: in so much as new wedded wiues by an old custom and ordinance at Rome, were wont with great ceremonie to adorn and bedeck with wooll the side-posts of the dore or entrie into their husbands house, on the marriage day. Now besides the vse of wooll for decent apparel, & defence against cold weather, that which is vnwasht and full of the sheeps sweate serueth in Physick, and is a foueraign remedy for sundry accidents, being applied with oile, wine, or vinegre, according as need requireth, either in mitigation of pain, or mordication and corosion, and according as our purpose is, to bind, or to enlarge and open any part: and namely, it is imploied in dislocations of members, and griefe of sinues, if it be laid to the affected place, well sprinkled & wetted with the said liquors: that it might be alwaies moist. But more particularly, for disioined members, some put thereto a little salt: others take rue, & when they haue stamped it, incorporat the same with some conuenient grease, & so apply it in maner of a cataplasme vpon sweate wooll: after which maner, it is good for contusions or bruises & swellings. Also it is said, that if the teeth & gums be well rubbed with such wooll and

H h

honey

hony mingled together, it will cause the breath to be the sweeter: a suffumigation or perfume therof is singular for the frensie: applied with the oile of roses, it stanches bleeding at the nose: or otherwise if the ears be well stopped therewith, and a little garlick conueied withal therinto. Moreouer, it is laid to inueterate sores with good successe, so that hony be put thereto. Soake wooll in wine, vinegre, or cold water and oile, and then wring and presse the same forth, it heales any wound. The wooll of a ram well washed in cold water, & afterwards steeped in cile, is singular for womens infirmities, and particularly allaieth the inflammation of the matrice: but in case it be saln downward and readie to slip out of the bodie, a perfume therof receiued beneath, staiteth the same and keepe it vp. The fattie wooll of a sheep being either applied, or put vp in manner of a pessarie, drawes down the dead infant out of the mothers belly: and yet the same otherwise represseth the immoderat flux of womens fleurs. If it be couched hard & close within the wound occasioned by the biting of a mad dog, it serueth to great purpose, but with this charge That it be kept bound thereto & not remoued vntill the seuenth day be past: applied vnto whit-flaws and impostimations about the naile-roots, with cold water, it cureth them: the same, if it be dipped & foked in a medly made of salnitre, brimstone, oile, vinegre, and tar, all dissolved together and ready to boile, and so laid as a cataplasme to the loins as hot as the patient can abide it, changing it twice a day, appeaseth the paine of those parts. Take the greasie wooll of a ram, bind therewith very hard the joints of the extreame parts, as namely the fingers and toes, you shall see how it will stanch bleeding. [Howbeit, note this, that the wooll growing vpon the sheeps neck is euer best and most medicinable: and if we regard the country from whence it coms, that of Galatia, Tarentum, Attica, and Miletum, is alwaies reputed better than any other.] Furthermore, the greasie or sweatie wooll of a sheepe, is proper to be applied to any raw places where the skin is fretted off, to contusions, bruses looking black and blew, strokes, crushes, rushes, rubs, and gals; as also from them who are tumbled down from some high place; for the head-ach and other pains; and lastly, for the inflammation or heat of the stomach, being decently applied with vinegre and oile rosat. Reduced into ashes and vsed as a liniment, it is singular for them that be crushed or squeezed, wounded, burnt, and scalded. This ashes entrench also into collyries and eie-falues: it serueth for hollow vlcers & fistuloes: like as for the ears when they run filthie matter. For these purposes about specified, some sheare it from the sheeps back: others chuse rather to plucke it: and when they haue clipped off the vpmost parts, or forced it lay the same forth to dry: they toze & card it also, and then bestow it in an earthen pot not fully baked, which they besmeer all ouer with hony, and so burn & calcine it to ashes: others put vnder, smal chips or slices of torchwood, and lay certain beds or courses thereof between the locks of wooll; and after they haue besprinkled the same with oile, set all one fire: which done, the ashes that come therof they put into little pans or vessels, & poure water thereon: and after they haue well stirred the said ashes with their hands, they suffer it to settle downe to the bottom; which they do oftentimes, alwaies changing the water till such time as a man may perceiue the ashes at the tongues end to be somewhat astringent, but not biting: and they lay vp their ashes for their vse. A great * scourer and cleanser this is, and therefore most effectuall to mundifie the eye-lids.

* *Vitis* sive *infusio* *effica* est, out of *Diosc.* not *septicus*, as is commonly read: for how can it be corrosiue if it bite not at all.

* *Siccatur*, or rather *Saccatur*. *Astreine* it through a linnen bag.

Moreover, the very filthy excrements of sheep, & the sweat sticking to the wool of their flanks, between their legs & the concavities thereof (which they call Oesypum) is thought to haue infinit number of medicinable properties: but the best Oesypum simply is that which coms from the sheeps bred about Athens. This sweet or filthy excrement, call it what you wil, is prepared and ordered many waies; but the principall is that which is gathered from the wooll newly taken from between the legs & shoulders of the sheep, and presently tozed ready for to be carded: others are content to take the sweatie filth of any wooll, so it be fresh plucked or clipped from the sheep; and whether it be the one sort or the other, they let it dissolve ouer a soft fire in a pan of brasse: which done, they set it a cooling, and take off the fat that swims aloft, & gather it into an earthen vessell. As for the rest which remained behind of the first stuffe, they set it on the fire again, that the fatnes may boile forth of it: after this the fat that floated aboue, as wel the former as the later, they wash in cold water, & let * it drie in a linnen cloth, expose it to the heat of the Sun, that it may frie therein vntill it be blanched white and look pure and cleare: then is it put vp in tin boxes or peuter pots, and reserved for vse. The true mark to know which is good Oesypum, after it is thus tried & putrified, is thus: if it haue a rank smel still of the first filthines which it had from the sheep: also, if when you rub it with your hand in water, it melt not, but in

the working look whitish like vnto cruse or white lead: a soueraigne thing it is for the inflammation of the eies: for the hard callosities also that grow vpon the eye-lids. Some there be who torrefie the foresaid greasie wooll into an earthen pot or pan, so long vntill it haue forgone and yeeldeth forth all the sweet and fattinesse; the which they suppose to be the best Oesypum that is for any erosion, fretting or hardnesse of the eyelids: or to cure the scabs and sores, yea, and the watering of the angles of the eies. Well, this fatty excrement thus clarified, incorporat with goose grease, cureth not only the vlcers of the eies, but of the mouth also and members of generation: the same tempered with Mellilot and Butyr, maketh an excellent liniment for all inflammations of the matrice: the chaps also and swelling piles or biggs in the fundament. Many other vertues it hath, which I will digest into their seuerall places, and speake of them accordingly. As touching the filthy excrements hanging to sheeps tails, and baltered together into round pills or bals, if they be dried and so beaten to powder, are singular for the teeth, yea, though they shooke in the head, if they be rubbed therewith; also for the gums, though there were gotten into them a cankerous sore. Now concerning fleece wooll that is pure and washed, either by it selfe alone, or else with sulphervif, it is passing good to be applied to any place in paine, whereof the cause is not euident and known: which also being reduced into ashes, is soueraigne for the accidents which happen vnto the priuie parts. In sum, of such vertue is wooll, that there is no cataplasme, pulstesse, or plaister, in manner applied to a grieued place; but the same hath wooll laid ouer it. The same also hath a singular vertue aboue all things, to recouer the appetite of meat in the very sheep that beare it, in case they haue lost their stomachs and feed not: for pluck the wooll that groweth to their tails, and therewith tie the same as hard as is possible, you shall see them presently fall to their meat: But it is said withall, that the rest of the taile which is vnderneath the said knot where it was bound, will quickly become mortified, and die.

* *Doloribus* *causis*.

CHAP. XIII.

¶ The nature and properties medicinable of Eggs.

Great societie and affinitie there is between wooll & eggs; in this regard, That if they be applied both together in a frontall to the forehead, they repress all violent fluxes & rheums falling into the eies: but you need not take for this purpose any wool that hath bin dressed or clenched with the * Fullers scouring weed: neither is it required, that in this case there should be vsed any more but the white of an egg, and the same ought to be infused or spread vpon the foresaid wooll, with the powder of Frankincense: & in very truth, the white of an egg alone, if it be instilled or dropped into the eies, is sufficient to restraine the flux of humors thither, yea and to coole any hot rheume or inflammation incident to them. Howbeit, some think it better to put saffron thereto, and vse this gleere or white of the egg beaten, in stead of water, for all collyries or medecins appropriat to the eies. The white of an egg incorporat with fresh butyr, is so soueraigne for the red and bloud shortene eies which put little children to pain, as none in the world better; nay there is not in a maner any other vsed in that case. The same beaten and tempered with oile, assuageth the heat of S. *Antonies* fire, if there be leaues of beets laid vpon the place and kept bound thereto. The white of an egg incorporat with salhormoniacke finely puluerized, doth extend and turn backward, the haire of the eyelids which grow inward into the eies: the same with pine nut-kernels, & a little hony mingled withall, and so reduced into a liniment, takes away the pimples that arise in the face: annoint the visage therewith, it will keep it from being sun-burnt. If one be scalded with hot water, lay quickly an egg to the place, yelke, white, and altogether, it will take out the fire and preferue it from blistering: some put thereto barley meale and a little salt: but say the place be blistered & exulcerat with any burne or scald, parched barley with the white of an egg and swines grease, is an excellent medicine to heale the sore: and the same cataplasme is much vsed in the cure of the hæmorrhoids, piles, and chaps of the fundament; and especially in children, for to reduce the tiwill into the right place, if it hang forth, for the rifts and chaps which appeare in the feet, take the white of an egg sodden or roasted, the weight of two deniers of ceruse, as much of lecharge of siluer, and myrrhe, with a little quantitie of wine; incorporat all together into a cataplasme, there is not a better medicine for them: and for the inflammation called S. *Antonies* fire, the white of an egg beaten together with Amydum or starch-floure, is right soueraigne. It is said moreouer, that the white of an egg is very good to conglutinat or sower any wound, yea and two expell the stone and grauell out of the body.

* *Radicula*, called before *Sarothamum*.

The yelke of an egg sodden vntill it be hard, and tempered with a little saffron, with hony also G and breft-milke, and so reduced into a liniment, allaieth the pain of the eies, if they be aointed or fomented therewith: or if the same be incorporat with oile rosat & honied wine, and so spread vpon a quilt of wooll and applied, it workes the same effect. Others there be who take the yelke or an hard egg, mix therewith the poudre of persley seed, adding thereto fried barley meale dried, and honied wine, with which composition they annoint the fore eies. Also the yelk of a soft egg alone, supped off and swallowed down cleare that it touch not the teeth by the way, is singular good for those that be troubled with the cough, with the rheume or catarrhe that hath taken a way to the breft or pectorall parts; yea and the roughnesse of the throat & pipes which causeth hoarsenesse: but principally if one be bitten with a worme or serpent called * Hæmorrhoids, let him both sup off the yelke of an egg raw or soft, and apply it also to the wounded place. It hel- H peth the infirmities of the reins; it healeth the fretting, excoriation, and vlcers of the bladder; yea and cureth those that reach & cast vp blood. Five yelks of eggs supped off raw in one hemin of wine, are singular good for the dysenteric or bloody flux, and namely, with the poudre of the shels from whence they came, the juice of Poppie, and a little wine withall. For the flux of the belly proceeding from a feeble stomacke, they vse to giue the said yelks of eggs raw, with as much in weight of good and full raisins, and the rind of a pomegranat, with direction to the patient, for to take this medicine three daies together by euen portions, and no more one day than another: for which purpose also, there is another way to vse them, namely, to take three yelks of an egg, to incorporat the same in as many ounces of honey and old lard, putting thereto three cyath, also of good old wine, and stamped all together into one composition vntill such time as it be reduced to the consistence or thicknesse of hony, of which the patient must drinke as need requires, with water, the quantity of an hazle nut at a time. Also it is good to lay three eggs in vinegre for three daies together, and vpon the fourth day to eat them, for the foresaid flux of the stomack: after which maner it auaileth much to take them against the oppilations & hardnesse of the spleene: but to such as are subiect to casting and reaching blood vpward, Physicians prescribe to take them in three cyaths of new wine. Some vse the yelks of eggs that haue bin old kept, for to reduce the skin that is blacke and blew to the fresh and liuely colour again; but they incorporat the same in hony with bulbe roots: the same sodden and drunk in wine, doe repress the immoderat flux of womens months: but applied raw with oile and wine, they discusse & resolve the ventosities within the matrice. Incorporat with oile rosat and goose grease, they are good to be applied to the nape of the neck for the cricke and pain thereof: being roasted against the fire hard, and so presently applied hot to the seat, they are good for the griefs and accidents of the fundament: but more particularly for the swelling piles and bigs rising in those parts, they would be laid too with oile of roses. Being sodden in water vntill they be hard, they serue very well for any burne or scald; with this charge, That presently the ashes of the same egg-shels calcined vpon burning coales, be applied to the place, and then to annoint the same with the foresaid yelks and oile rosat mixed together. Now it falleth out somtime, that eggs be all yelke within, & haue no white at all; namely, when the hen hath coued & sitten ouer them three daies together, and then be taken away from vnder her; and such kind of eggs the Greeks call Schista.

Dalechamps would haue the same eggs to be dried and reduced into poudre, &c.

Take the eggs from vnder the hen when they be full of chicken, a little before they spring and the chicke be hatched, together with halfe as much of gal nuts, and giue the same for to streng- then a feeble and weak stomack; with this caution, That the patient haue eate nothing in two hours before. And some doe aduise for the dysentery or bloody flux, to giue the said chickens sodden egg and all together, putting thereto one hemine of austere or sharpe wine, and an equall quantitie of oile and parched barley groats drie. The fine pellicle or skin that is within the egg-shell, being taken from it (whether the egg be raw or sodden it skilleth not) healeth the chaps that are in the lips, if it be applied thereto. The ashes of an egg-shell drunke in wine, stoppeth the issue of blood gushing out at any part: but the same ought to be burnt, or calcined without the pellicle or skin aforesaid; and so it makes an excellent dentifrice also to cleanse and scoure the teeth white: a liniment made with the said ashes and myrrhe together, staies the superfluous M flux of womens terms. And here I cannot chuse but note vnto you by the way, the strange propertie and wonderfull nature that egg-shels haue: for so hard compact and strong they be, that if you hold or set an egg endlong, no force nor weight whatsoeuer is able to break and crush it, so long as it standeth straight and plumb vpright, vntill such time as the head incline to a side and

and bend one way more than another. Eggs entire and all whole as they be [i. white, yelke, shell and skin] taken in wine with rue, dill, and cunin, helpe women in hard traueil to speedie and easie deliuerance. Eggs incorporat with oile & rosin of the cedar mixed together, are singular good for to heale scabs and to kill the itch: put thereto the root of Cyclamin, [i. Sow-bread] it healeth the running skalls of the head: for those that reach vp purulent matter out of the chest, or spit blood, it is good to sup off a raw egg together with the juice of vnsler leeks, and an equall quantitie of Greekish wine; but first all must be warmed, before that it be giuen to the patient. Against a cough, they ordaine eggs sodden and stamped together with hony, and so to eat them; or else to sup them off raw, with wine cuit & oile, of each a like quantity. If a man haue any sore or vlcere in his secret parts seruing for generation, it were very good to inject one egg tempered B with three cyaths of wine cuit, and halfe an ounce of Amylum or starch-floure, presently vpon his coming forth of the baine or hothouse. An excellent linement there is made of sodden eggs stamped together with cresses, for the sting or biting of serpents. How many means there be whereby eggs doe good as meat, there is not one but knoweth: for euen in their going downe, they passe through any tumor or swelling of the throat, and with their kind heat foment those parts by the way. There is not any kind of viand in the world besides it, that nourisheth a sicke man, without any offence or burden at all to the stomacke; and it may go well enough for meat and drinke both. As touching eggs sodden in vinegre, and how their shels may be made soft and tender therby, I haue already shewed: such eggs if they be wrought and knead with meale into a dough or past, do make a kind of bread which is soueraigne for all fluxes of the stomack. Some there be who think it better to take these eggs thus mollified & resolved in vinegre, and to terrifie the same betwene two platters of earth, supposing that being thus prepared, they serued not only to stop a lask, but also to repress the immoderat flux of womens monthly tears: but in case the said fluxions be excessiue and beyond all measure vehement, they are to be supped off raw, with water and meale in maner of a grewell or pottage: or els the yelks may be boiled by themselves in vinegre, vntill they be hard; and then a second time be fried & torrified afterwards with grosse pepper, and in this fort they will die any loosenesse of the bellie. And yet there is another singular remedie for the bloody flux, namely, to put the meat of a raw egg in a little earthen pot that neuer was occupied, and to add thereto as much hony as may amount to the quantitie of the egg, to the end that all be of equall proportion; then, within a while after to temper therewith the like measure of vinegre & oile both, and to beat them all together oftentimes, that they may be well incorporat and vnited in one. In which composition, this is to be obserued, That the better that euery one of these ingredients is that enter into this confectiō, the more excellent operation and speedier remedie wil ensue therupon. Others there are, who in stead of oile and vinegre, put in red rosin and wine, according to the former rate and proportion: howbeit they temper the said medicine after another fort; for they put in of oile, only as much as the egg comes to, adding thereto of the pine-tree bark * two sixtie parts of a Romane denier, and one sixtie part of Sumach, which I called Rus, and five oboli weight of hony; with this charge, That they be all boiled together; and that the patient eat no other meat whatsoeuer for the space of foure hours after. Many there be, who to cure and ease the wringing gripes and torments of the belly, take two eggs and foure cloues of Garlick, which they pun and stamp together; then they heat them ouer the fire in one hemine of wine, and giue this mash vnto the patient to drinke. To conclude, because I would not willingly omit any thing that may commend eggs and giue grace vnto them, know thus much moreouer, That the gleere or liquid white of an egg with quicklime, maketh an excellent sement to soudre or vnite any broken pieces of a glasse together: besides, of such strength and efficacie they are, that neither a piece of wood no nor so much as any parcell of cloath wet or dipped in the white of an egg wil burn, but check the violence of the fire. Howbeit, note that all which I haue spoken of eggs, is to be meant those that hens only do lay: for as touching other birds eggs, I wil write in their due places; for as much as they are not destitute of many peculiar vertues and singular properties of their own.ouer & besides, I wil not ouerpasse one kind of eggs besides which is in great name and request in France, and whereof the Greeke authors haue not written a word: and this is the serpents egg, which the Latins call Anguinum. For in Summer time verely, you shall see an infinit number of snakes, gather round together into an hpape, entangled and enwrapped one within another so artificially, as I am not able to expresse the manner thereof: by the means therfore, of the froth or saluation which they yeeld

yeeld from their mouths, and the humour that commeth from their bodies, there is engendered the egg aforesaid. The priests of France called Druidæ, are of opinion, and so they deliuer it, That these serpents when they haue thus engendered this egg do cast it vp on high into the aire, by the force of their hissing, which being obserued, there must be one ready to latch and receiue it in the fall again (before it touch the ground) within the lappet of a coat of arms or soldiours cassocks. They affirme also that the party who carrieth this egg away, had need to be wel mounted vpon a good horse and to ride away vpon the spur, for that the foresaid serpents will pursue him still, and neuer giue ouer vntill they meet with some great riuer between him and them, that may cut off and intercept their chafe. They ad moreouer and say, that the onely marke to know this egg whether it be right or no, is this, That it will swim aloft about the water euen against the stream, yea though it were bound and enchaufed with a plate of gold.ouer and besides, these Druidæ (as all the sort of these magicians be passing cautelous and cunning to hide and cover their deceitfull fallacies) do affirme, That there must be a certaine speciall time of the Moones age espied, when this businesse is to be gone about, as if (forsooth) it were in the power and disposition of man to cause the moon and the serpents to accord together in this operation of engendering the egg aforesaid by their froth and saluation. I my selfe verily haue seen one of these eggs, and to my remembrance, as big it was as an ordinary round apple: the shell thereof was of a certaine gristly and cartilagineous substance, and the same clasped all about (as it were) with many acetables or concauities representing those of the fish called a Pourcuttle, which thee hath about her legs. And it is the ensigne or badge that the Druidæ doe carry for their armes. And they hold it a soueraigne thing, for to procure readie excesses vnto any princes, and to win their grace and fauour, as also to obtaine the vpper hand ouer an aduersarie in any sute and proccesse of law, if one do carrie it about him. But see how this vanitie and foolish persuasion hath possessed the minds of men! for I am able vpon mine owne knowledge to auouch, that the Emperour *Claudius Cesar* commanded a man of arms and gentleman of Rome, descended from the *Vorantians*, to be killed for no other reason in the whole world, but because he carried one of these eggs in his bosome, at what time as he pleaded his cause before him in the court. This winding and mutuall enfolding of these serpents one within another, putting me in mind of one thing and mutuall enfolding of these serpents one within another, putting me in mind of one thing worth the obseruation, That it was not for nought that forrein nations haue ordained, that their Embassadors who had commission to treat of peace, should carrie with them a certaine rod or mace wherein were pourtraied serpents winding and clasping round about it, to signifie and shew, that these creatures, as sauage, fell, and venomous as they be otherwise, and as it were made altogether of poison, yet otherwhiles they accord and agree well enough together: where it is furthermore to be noted, that the manner was not to represent in these maces and ensignes of peace, any furious serpents with crefts vpon their heads.

As touching geese and their eggs, how good and profitable they are, before I enter into any discourse (for my purpose is to treat of them also in this very booke) I cannot chuse but for the honour due vnto the *Comagenes*, in regard of an excellent composition by them made, write first of it, being of them called *Comagenum*: for that also the principall and best of that kind was most vled and in greatest request in *Comagene*: which is a region belonging vnto *Syria*. It consisteth of goose greace, cinamon, casia or canelle, white pepper, and an herbe called likewise *Comagene*. Now for the better mixture and fermentation of these ingredients and the whole composition, the vessell which containeth the same ought to be buried in snow: a pleasant smell it hath, and is held to be a soueraigne ointment for any through-cold and quivering fit, for conuulsions, for sodain pains whereof no euident cause is known; and in one word, for all lassitudes and what infirmities fower be cured by the medicins called in Greeke * *Acopa*: in such sort, as that it serueth not only for an outward ointment, but also for an inward medicine. This *Comagenum* is made in *Syria* after another maner, namely of the fat or greafe of birds which is cleafed, tried, and purified, according as I haue before said, with an addition of *Erysiceptron*, *Xyloballamum*, the barke or young shoot of the Date tree, and sweet *Calamus*, of each as much as amounteth to the weight of the greace aforesaid; and all these together must be put into wine and set ouer the fire for to siuer and take two or three waulms. Now this is to be noted, that the conuenient time of making it is in winter, because it will neuer jellie and grow to any thick consistence in Summer, vnlesse there be * wax put into it.

Many other good medicines and ointments there be made of Geese, whereat I marueile as

* *Acopa*, so called, because they be good against lassitude or weariness.

* And that delicat much the odoriferous smell.

A much as at * Goats: for it is said, that all Summer long euen vnto the fall of the leafe, Geese and Rauens be continually sicke. Finally, as touching the honour which Geese deserued and woon by discouering the skallade that the Frenchmen made into the Capitoll hill of Rome, I haue written heretofore.

CHAP. IIII.

¶ Medicinable receipts taken from dogs, and other beasts which are not tame, but wild: also from foules. Remedies against the pricke or sting of the venomous spiders *Phalangia*.

B Vpon the foresaid occasion, for the dogs which had the custome of the Capitoll, barked not when the *Gaules* skaled the Capitoll, there is a custome yearly obserued at Rome to trusse certain* dogs to forks, and thus as it were crucified, to hang them alie vpon an Elder tree for exemplarie justice: which execution was performed between the temple of *Ieuentus* and *Summanus*. But seeing I am thus light vpon the mention of dogs, I must needs discourse of them more at large, and the rather, for that our ancestours in old time obserued many ceremonies about this beast. First and foremost, the ancient Romanes thought the flesh of sucking whelps to be so pure and fine a meat, that they vled to sacrifice and offer them as an expiatorie oblation to their gods for to appease their indignation. And verily at this day they make no scruple to sacrifice a yong whelp before it be full a day old, and especially such an one as the bitch puppieth the same morning: yea, and at the solempne festiuall suppers ordained for the honour of the gods, they forget not this day to serue vp at the table certain dishes of yong whelps flesh that sucke their dams. Moreouer, that yong dogs flesh was an ordinarie seruice at those sumptuous feasts called * *Aditiales*, it appeareth plainly by the testimonie of *Plautus* in his * *Comædies*. Certes, it is generally thought, that for the venome called *Toxicum*, there is not a better counterpoyson than dogs blood. It seemeth also that this domesticall creature taught men first the manner of discharging and purging the stomacke by vomit. In summe, there are a number of other medicinable vertues in a dog highly commended, whereof I will write as occasion shall be offered in conuenient place. But for this present I will proceed orderly according to my first intention and purpose.

D To returne againe vnto the stinging of serpents, these remedies following are taken to be effectually, to wit, sheeps treddles and Goats dung fresh gathered and boiled in wine to the consistence of a liniment, and so applied vnto the place: also mice and rats splitted and so laid hot vnto the wound. And verily, how basely fower men thinke of this kind of cattrell and hold them no better than vermine, yet they are not without certaine naturall properties, and those not to be despised: but principally in regard of the sympathy betweene them and the planets in their ascent, as I haue noted heretofore: and namely, considering how the lobes and filaments of their liuers and bowels do encrease or decrease in number, according to the daies of the Moons age. And these magicians do report, That if one do giue vnto hogs the liuer of a mouse or rat within a fig, they will follow the partie that gaue them that morcell. They say moreouer, that the same is able to do as much in a man: but in case a cyath of oile be drunke vpon it, it looseth all the vertue.

E As touching Weasels, there be two kinds of them: for there be wild sort different from the rest in bignes, for they be smaller: and those the Greeks call * *Ictides*: their gall is said to be very effectually against the sting of the *Aspis*, whereas otherwise it is a very poyson it selfe. As for that kind which keepeth about our houses, wandering here and there in euery corner, and * vseth to carie her killings in her mouth to and fro euery day: from place to place and neuer resteth (as mine author *Cicero* doth write) shee is anemie to serpents and naturally persecuteth them. Their flesh being salted, is giuen to the weight of one denier in three cyaths of wine, with great successe, vnto those that be stung by serpents: also their maw farced with coriander seed, and kept in salt or brine, is good for the same purpose if it be drunke in wine. But the yong kitling of the Weasel is best and most effectual.

Other vile creatures there are besides, which for their baseness I bash to name and relate in this place; howbeit, because so many authors with one consent haue so constantly commended their medicinable properties, I make it a matter of conscience to passe them ouer in silence; confide-

* *Ictides*, saith *Cassiodorus* dig. cap. 20. lib. 17. it is such as will not barke and giue warning of strangers coming.

* *Aditiales*, *Festus* quod est in the place in the *Comædies* called *Aditiales* are now extant.

* Which be our Ferrets, * Some take these for our Cats.

considering that all our medicins proceed from that conuenience and repugnancie which is in the nature of all things, whereof we haue so much spoken. As we may see for example in these punies or wall lice (the most ilfavoured and filthy vermine of all other, and which we loth and abhor at the very naming of them) for natually they are said to be aduersatiue to the sting of all serpents, and principally of the Aspis: nay they are thought to be a counterpoysen against any venomous thing whatsoeuer: and folke ground their reason hereupon, because looke what day that Hens do eat a wall-louce, the same day there shall no Aspis haue power to kill them. And it is said moreover, That the very flesh of such hens as haue eaten such punies, is singular good for those that be stung alreadie by the said serpents. Other receipts there be set downe by our great masters in Physicke, as touching this foule vermine: but those which carie most modestie with them and haue greatest respect vnto manhood & humanity, are these, namely, to rub or annoint the place which is stung, with the said wal-lice and the bloud of a Tortoise together: also to chase away serpents, with the smoak or perfume of them: likewise if any beast which hath swallowed down horse-leeches, do take them in drink, they will either kill them or driue them out, yea, and in what part soeuer they are settled and sticke fast, they will remoue them and make them to fall off. And yet some there be who vse this nastie and stinking creature in eie-salues, for they incorporat them in salt & womans milk, and therewith annoint their eies: yea, and drop them into the eares with honey and oile of rose mingled together. Others there be who vse to burne these puniaises or wal-lice, such especially as be of a wild kind, and breed vpon Mallowes, and incorporat their ashes in oile of Roses, and intill them into the eares. Touching other medicinal properties which they attribute vnto them, namely for impostumes and botches that are broken and run, for the Quartan ague and many more maladies; although they giue direction to swallow them down in an egge, or else enclosed within wax or a beane, I hold them for lies, and therefore not worthy to be related in sadnesse. Marie I will not say but there is some probabilitie and apparence of reason why they should put them in those medicines which are ordained for the lethargie: for surely they are knowne to be very proper against that drowines, which is occasioned by the venome of the Aspis: to which effect seuen of them be ordinarily giuen in a cyath of water, or but foure, if the patient be a child. In case of strangurie also, when a man pisseth dropmeale, they vse to put wall-lice into a syringe, and so conueigh them into the passage of the yarde. See the goodnesse and industrie of dame Nature, the mother of all, how she hath produced nothing in the world but to good purpose and with great reason. And yet here is not all that they report of these lice called puniaises: For they say, that whosoever carie two of them in a bracelet about his left arme, within a lock of wooll (but the same forsooth must be stolen from some shepherd) he shall be secured against those agues that come ordinarily in the night season: but say their fits vse to returne by day time, then the said punices ought to be lapped in a reddish clout of a carnation colour. Contrariwise, the worme called Scolopendra is an enemy vnto these wall-lice, and killeth them.

As for the Aspides, look whom soeuer they haue stung, they die vpon it with a kind of deadly sleepeinesse and benumbednesse in all their lims: and to say a truth, of all serpents that creep vpon the ground, they are most mortall, and their wounds least curable. Their venome if it enter once so farre, that it come to bloud, or doe but touch a greene wound, there is no remedie but present death: marie if it light vpon an old sore, the danger is not so speedie, nor the force so quick. Otherwise let the same be taken in drinke to what quantitie soeuer, it is harmelesse and doth no hurt at all: for setting aside that senselesse drowinesse wch it inflieth, putrifaction and infection it causeth none: which is the reason, that the flesh of those beasts which die of their sting is meat good enough. I would pause and make some stay in reporting a remedie that these Aspides do yeeld, but that I haue my warrant from *M. Varro*, whom I know to haue deliuered the same, euen when he was foure score yeres old and eight: namely, That there is not in the world so good a thing to cure the bitings of the Aspides, as to giue the party who is wounded thereby, some of their vrine to drinke.

To come now vnto the Basiliske, whom all other serpents do flie from and are affraid of: albeit he killeth them with his very breath and smel that passeth from him; yea, and (by report) if he do but set his eie on a man, it is enough to take away his life: yet the Magicians set great store by his bloud, and tell wonders thereof: and namely that being of it selfe as blacke and as thick congealed as pitch, yet when it is washed and dissolued, it looketh more cleare and pure than

* At which yershe would haue bene ashamed to tell alie.

* Cinnabaris. Vnto it they attribute strange and admirable effects: For whosoever (say they) carie it about them shall & gracious with princes or great potentats, yea, and at their hands obtaine a grant of all their petitions: they shall find fauour with the gods above, and speed in all their praies: remedie they shall haue of all diseases: and no forcerie or witchcraft shall take hold of them. And some of them there be who call it the bloud of Saturne.

As for Dragons, they haue no venome in them. And if it be true that our Magicians say, if a Dragons head be laide vnder the threshold of a dore, after due worship and adoration of the gods, with praies & supplications vnto them for their fauourable grace, that house shall surely be fortunat. The eies of a Dragon preserved drie, pulverised and incorporat with hony into a liniment, cause (by their saying) those who be annointed all ouer therewith to sleepe securely, without any dread of night-spirits, though otherwise they were fearfull & timorous by nature. Moreouer, if we may beleue them, the fat growing about the heart of a Dragon, lapped within a peece of a Buckes or Does skin, and so tied fast to the arme with the nerues or sinues of a red Deere, is very auailable, and assurth a man good successe in all sutes of law. The first spondyle or turning joint in the chine of a Dragon, doth promise an easie and fauourable access vnto the presence of princes & great states. The teeth of a Dragon lapped within the skin of a roe buck or wild Goat, and so bound fast with the sinewes of a Stag or Hind, do mitigat the rigor of great lords and potentats, causing them to incline to their petitions and requests, who present themselves before them. But about all other receipts, one composition there is which bewraith the impudent and lying humor of these Magicians, who promise vndoubted and infallible victory, to those that haue it about them, and this it is: Take (say they) the taile and head both of a Dragon, the haire growing vpon the forehead of a Lion, with a little also of his marrow, the froth moreover that an Horse someth at the mouth, who hath woon the victory and prize in running a race, and the nailes besides of a dogs feet: bind all these together with a peece of leather made of a red Deere skin, with the sinues partly of a Stag and partly of a fallow Deere, one with another in alternatiue course: carrie this about you and it will worke wonders. Impositions all, and loud lies. And verily, it is as gracious a deed to discouer and lay abroad these impudencies of theirs, as to shew the remedies for the sting of serpents, considering how these deuices be no better than meere mischiefs and forceries, which hurt and bewitch poore patients, and such as trust in them. True it is, that all venomous beasts flie from those that be annointed with Dragons grease. Likewise they cannot abide the strong & virulent saueur of the rat of India called Ichneumon: inso much as they stand in dread of them who are annointed with a liniment made of the ashes of their skin incorporat in vinegre. Moreover, lay the head of a Viper to the place where she hath wounded one, it is a foueraign remedie, yea, though it were the head of any other Viper than it which inflicted the wound, it is infinitely good. Likewise if a man do hold vpon the same Viper that inflieth the sting, at a staues end ouer the smoak of wood burning, or the vapor of seething water (and yet, say they, warie enough they be thereof, and will auoid it) or annoint the place with a liniment made of her ashes burnt, it is sufficient to heal the sore. *Nigidius* mine Author affirmeth, That serpents after they haue stung one, are forced by a certain necessitie and instinct of Nature to returne vnto the party whom they haue hurt. The Scythians yerely vse to slit a vipers head between the eares for to take forth a little stone, which she is wont to swallow when she is affrighted. Others make vse of the whole head as it is. Certaine trochisks there be, made of a Viper, called by the Greeks Theriaci: for which purpose they cut away at both ends as well toward the head as the taile the breadth of foure fingers, they rip her belly also, and take out the garbage within: but especially they rid away the blew string or vein that sticketh close to the ridge bone. Which done, the rest of the bodie they seeth in a pan, with water and dill seed, vntill such time as all the flesh is gon from the chine: which being taken away, and all the prickie bones thereto belonging, the flesh remaining they incorporat with fine flour, & reduce into troches, which being dried in the shade, are reserved for diuerse vses, and enter into many foueraigne antidotes and confections. But here is to be noted, that although these troches be called * Theriaci, yet are they made of vipers flesh onely. Some there be, who after a Viper is cleafed as aboue said, take out the fat, and seeth it with a sextar of oile vntill the one halfe be consumed: which serueth to driue away all venomous beasts, if three drops of this ointment be put into oile, and therewith the body be annointed all ouer. Moreover, this is held for certaine, that there is no sting or bit of serpents so mortall and incurable otherwise, but the entrailles of the

* Trochiscus. For Theriaci in the primitive and naturall significatiō is more general of the or trochiscus, which is any wild or venomous beast.

the same which gaue the wound, applied thereto, will heale it: as also, that as many as haue at any time supped the broth wherein a Vipers liuer was boiled, shall neuer afterwards be smitten or stung by serpents.

As for Snakes, venomous they are not but at some times of the month, when they feel themselves moued by the instigation of the Moone: but contrariwise they be good for those which chance to be stung by them, if they be taken alive, stamped, or braied with water, and therewith the affected place fomented. Certes, they are thought to be medicinable in many respects, as I will hereafter declare: which is the cause that a Snake is dedicated vnto the god of Physick, *Æsculapius*. And *Democritus* verily talketh of many strange and wonderfull compositions made of snakes, by meanes whereof a man may vnderstand the language of birds, and know what they prattle one to another. But to say no more, was not *Æsculapius* brought from Epidaurus to Rome in the forme of a Snake? and keepe we not still many of that race commonly in our houses tame and gentle, feeding them by the hand? Surely if their eggs and young frie were not esteemed so, they should be destroyed with firing them in their holes, the world would be pestered with them, they multiply so fast. The goodliest and fairest snakes to see too, are those which live in the water, and are called Hydri, i. water-snakes: but a more fell and venomous serpent, their liues not vpon the face of the earth. Howbeit, the liuer of these water-snakes, if it be kept in salt, or otherwise preserved, is a soueraigne remedie for those that be stung by the same kind.

Now for the spotted Lizard, called Stellions, a Scorpion stamped is singular good against their poyson. For this you must thinke, that of them there is made a venomous drinke: for let him be strangled or drowned in wine, whoeuer drinke thereof shall find himselfe imployed, in so much as their faces will break forth into certaine spots and pimples & soule morphew. And this is the reason that our jealous dames when they would avert the affection and loue of their husbands from those concubins, vpon whom they suspect them to be enamoured, will if they can possibly, stifle a stellion in the complexion or ointment wherewith such harlots vse to paint their visage; by meanes whereof they become disfigured, and grow both foule and ill-favoured. But what is the remedie to cleanse the skin from such deformities? The yolke of an egg incorporat with hony and salnitre, doth the feat. The gall of these Lizards or Stellions punned and dissolved in water, is said to haue an attractive facultie to draw all the Venefuels about the place to resort thither in companies.

Of all venomous beasts, there are not any so hurtfull and dangerous as are the Salamanders. As for other serpents, they can hurt but one at once, neither kill they many together: to say nothing, how when they haue stung or bitten a man, they die for very grieve and sorrow that they haue done such a mischief, as if they had some pricke and remorse of conscience afterwards; and neuer enter they againe into earth, as vnworthy to be receiued there: but the Salamander is able to destroy whole nations at one time, if they take nor heed and prouide to preuent them: For if he get once to a tree, and either claspe about it or creepe vpon it, all the fruit that it bears is infected with his venome; and sure they are to die, whoeuer eat of that fruit, and that by the meanes of an extreme cold qualitie that his poyson hath, which doth mortifie no lesse than if they had taken the Libard-baine call *Aconitum*. Moreouer, say that shee doe but touch any peece of wood, biller, or hedge stake, wherewith either a loafe is baked, or a shiue of bread tosted, as many as eat thereof, shall catch their bane by it: or if one of them chance to fall into a well or pit of water, looke whoeuer drinke thereof, shall be sure to die vpon it: and that which is more, if there happen neuer so little of the spittle or moisture which shee yeeldeth, to light vpon any part of the body, though it touched no more but the sole of the foot, it is enough to cause all the haire of the body to fall off. And yet as great and dangerous as the poyson of these beasts is, there be some creatures and namely Swine, that eat them safely; so effectually is their contrarietie and repugnancie in Nature, that it conquereth and subdueth the said poyson: And to mortifie this venome, it foundeth to good reason, that those beasts should haue power, which feed vpon them and find no harme thereby. But writers there be who say, that the flies called *Cantharides*, taken in drink, or the Lizard in meat, are good for that purpose: besides other things which are aduerse and contrary thereto, wherof I haue already spoken & will speak more in time and place conuenient. As for that which the Magicians do report of the Salamander, against skarefires (for that there is other beast but it, that scorneth the violence of the fire and quencheth it) surely it had bene put in practise long since at Rome, in case their words

A had proued true. *Sextius* affirmeth, That the body of a Salamander cleansed from the guts and garbage within, and parted from the head and feet, if it be condite in hony, inciteth greatly to fleshly lust those that eat thereof: but he denieth flatly that it doth extinguish and put out the fire.

Now concerning those birds which yeeld any helpe against serpents, the vulture or *Geir de*, serueth to be set in the first ranke: but this hath bin obserued and found by experience, that the black of this kind are not so powerful as others in this behalfe. It is commonly said, that a perfume made with burning their feathers, chaferth serpents away. Likewise, it is an opinion generally receiued, that whoeuer carie about them the heart of this foule, are secured from the violent assault, not of serpents only, but also of other wild beasts, yea, and of the theues & robbers by the high way side. The same also assures them to escape the danger of princes wrath and indignation, howsoever they be set and incensed against them. The flesh of Cocks and Capons dissolved, if it be applied warm (as it was plucked from the bones) to the place which is bitten or stung by any serpent, drawes out the venome, and mortifies the strength thereof, so doth their braines if it be drunke in wine. But the Parthians thinke it better to lay vnto the said fores the braines of an Hen. Also a broth made of such pullein, hath a singular vertue in this case, if it be supped off: like as in many others it workes wonderfull effects, as it is vsed. For first and foremost neither Lions nor Panthers will set vpon those persons who are bathed with their decoction, especially if there were any Garlick sodden therein. Secondly, it is passing good to keep the body loose: but stranger is the operation if it were of an old Cocke. Item, It serueth very well to cure long feauers, the trembling also and nummednesse of the lims, it assuageth the pain of all kinds of gout, easeth the head-ach, staieth the violence of rheumes especially falling into the eies, resolue the ventosities, quickeneth the dull appetite to meat, preuenteth the danger of the inordinat desire to the stoole without doing any thing, if it be taken betimes and in the beginning of that disease; strengtheneth a feeble liuer, comforteth the reins and the bladder, conuoceth crudities in the stomack, and finally, helpeth those who are short winded. In regard of these manifold commodities, the maner of making this broth as it ought to be, is set down in writing, and direction giuen therefore. For more effectually it is found to be, in case there be sodden with the Cocke or Capon the sea wort *Soldanella*, or the hearbe *Cybium*, *Capres*, or *Perfely*, *Mercurie* the herbe, *Polypodium*, or dill. Now the best way of making this broth, is to set the said Cocke or Capon a seething with the abouenamed herbes in three gallons of water, and to suffer the same to boile vntill there remain but three pints of liquor: when it is thus sodden to this height, it ought to coole without dores in the open air: and then it is singular good to be giuen in those cases aboue rehearsed, prouided alwaies, that the patient haue taken a vomit before, for that is the only season. And for as much as I am thus far entred into a discourse of Pullain, I cannot forget one miraculous experiment, although it be nothing pertinent to Physick, & this it is, That if one put the flesh of an hen into gold as it is in melting, it will draw all the mettall into it, and consume it so, as therupon the said flesh is held to be the poyson (as it were) of gold. Moreouer, if you would not haue a Cock to crow and chant, put a wreath or collar of Vine twigs about his necke. But to returne again to our receipts and medicines against serpents: the flesh of young Pigeons newly hatched, as also of swallowes, is very good: so are the feet of a scriche Owle burnt together with the herbe *Plumbago*. But before I write further of this bird, I cannot ouerpasse the vanitie of Magicians which herein appeareth most evidently: For ouer and besides many other monstrous lies which they haue deuised, they giue it out, That if one doe lay the heart of a scriche Owle on the left pap of a woman as shee lye asleep, shee will disclose & vtter all the secrets of her heart: also whoeuer carie about them the same heart when they go to fight, shall be more hardie, and performe their deuoir the better against their enemies. They tell vs moreover, I wot not what tales of their eggs, and namely, that they cure the accidents and defects befalling to the haire of the head. But I would faine know of them what man euer found a scriche Owles nest and met with any of their egges, considering that it is holden for an vnouth and strange prodigie to haue seen the bird it selfe: and what might he be that tried such conclusions and experiments, especially in the haire of his head? Furthermore, they affirme assuredly, That the blood of their young birds will curle and frizzle the same haire: Much like to these toies are their reports also of the Bat: for (say they) if a man goe round about a house three times, carrying a liue Bat with him, and then naile it vpon the window with the head downward, it is a soueraigne

*Hereupō per-
adventure it is
that in collicca
& Coks broths
we vse to seeth
peece of gold,
with an opinio
to make them
thereby more
restorative.
* Which some
take for the
lesse wild Ta-
zell.

counter charme against all forceries and witchcrafts: and more particularly, if a Bat be borne thrice round about a sheepe-coat, and then hanged vpon the lintell of the dore, with the heeles vpward, it will serue for a singular preservative to defend the sheepe from all such harmes. As for the bloud of a Bat, they commend it highly for healing the sting of serpents: if together with the leaues or seeds of a thistle it be applied to the place.

Touching the venomous spider called *Phalangia, they know not in Italy what it is, for all there be many kinds thereof: for some are like vnto Pismires, but that they be far bigger; their heads be reddish, the rest of their body black, howbeit here and there marked with white spots. The sting of this spider is more keene and sharpe than that of the wespe. It liueth ordinarily about ouens and mils. The best remedie against the prick of their sting, is to present before the eyes of the patient, another spider of the same kind: for which purpose folke vse to keepe them in store, when they find any of them dead. Their cafes or skins brought into powder and taken in drink, haue the like effect to young weazils or kitlings, as I haue declared before. A second sort there is of these venomous spiders Phalangia, which the Greeks distinguish from others by the name of Lupus. Those that be of a third kind, and yet named Phalangia, are the spiders which be couered all ouer with a certain downe, and of all the rest haue the biggest heads. Cut one of them and rip the bellie, you shall find within two little wormes or grubs, which (if it be true) that *Cecilius* hath left in writing) hinder women for conception in case they be knit within a peece of leather of a red deere skin, and tied to their armes or other parts of their bodie before the sunne rising: but this vertue continueth not aboue one yeare. Thus haue I shewed one receipt only, of all those that *keep women from conceiuing; which I may be allowed to do in regard of some wiues, who being too fruitfull and ouercharged with child bearing, haue some reason to play them a while and rest from teeming: and therefore may be pardoned, if they vse some such meanes therefore.

There is another kind of spiders, which the Greeks call Rhagion, for that it resembles a black grape kernill: these haue a very little mouth vnder their belly, and as short legs, as if they were vnperfect and not fully made. Look where they bite, the pain that ensueth is much like to that which is occasioned by the sting of a scorpion: and their vrine who are hurt by them, seemes to shew to the eye, cobwebs floating aloft. I would say, that this spider were the same that Asterion, another kind of them, but that these haue certain eiares or streakes of white. Their sting or prick causeth loosenesse and feebleness of the knees. As for the blew spider, which carrieth a blacke downe or cotton, it is worse than both the former, causeth trouble and dimnesse of the eyes by their pricking, yea, and vomiting of matter resembling cobwebs. And yet there is another Phalangium worse than it, which commeth neare in shape to the Hornet, but that it hath no wings at all, and look whomsoever it biteth, they are sure to become leane and pine away. The venomous spider, called by the Greeks Myrmecion, is headed like vnto an Emmet: the bellie is blacke, howbeit marked with certain white spots: their sting is as painefull as that of Wespes. But as touching that kind of Phalangium which is called *Tetragnatium, there be two sorts thereof: The one, which is the worst of the twaine, hath the head diuided directly in the middle with a white line; whereas in the other, the said line or seame runneth crosse ouerthwart. These make the mouths to swell whom they haue bitten. But those that be of a dead asht colour, and yet whitish behind, are not so quicke with their prick as the rest: Of which colour there is another sort that be altogether harmlesse: and these be our common spiders or spinners which against wals vse to stretch out their large webs as nets to catch poore flies. Now concerning the remedies appropiat to any prick or biting of the foresaid Phalangia, there is not a better thing than to drink in oxycrat, water and vinegre mingled together, the braines of a Cock or Hen with a little pepper. Also to take in drink sue Pismires, is thought to be a singular medicine: and withall to make a liniment of sheeps mucke ashes, tempered in vinegre, and therewith to annoint the grieved place. Moreover, the said spiders themselves (of any kind whatsoever) resolu'd and putrified in oile, serue for the said purpose.

As for the mischeuous mouse called the Hardishrew, the runnet found in a lambes maw taken in wine, healeth the hurt that commeth by her biting: also the application of a salue made with the ashes of a Rams cley incorporat with hony, worketh the same effect: so doth a young weazill or kitling, prepared and vsed in manner aforesaid in the Treatise of serpents. If one of these shrewes haue bitten a horse or other beast, it is good to lay vnto the place a mouse or rat

* Yet *Matthiolus* vpon *Dioscorides* reckoneth *Arantia* to be a kind of Phalangium, whereof there is great store in *Apulia*.

* called *Atocia*

* Having four claws.

A new killed, with some salt, or else the gall of a Bat with vineger. The shrew it selfe being burst, and so laid fresh and warm to the sore, cureth the same: for this is obserued, That if one of them be with yong when she doth bite, presently she cleaueth in sunder. And in truth, the best & surest means to cure the hurt, is to apply vnto the wound the very shrew it selfe that did the deed, if possibly shee may be had; and yet the rest are very good: for which purpose they vse to be kept in oile, or els to be dawbed ouer with clay, to serue in time of need: also the earth taken from a cart-rut where a wheele hath gon, is thought to be a proper remedie for the said biting of a shrew, if it be applied thereto: for it is said, that this creature is by nature so benumbed or dull of mouing, that it will neuer go ouer a cart-track.

As touching Scorpions, the lizard named Stellio (by way of a reciprocall counterchange) is the greatest enemie they haue; inasmuch as at the very sight only of the said lizard, they will be affrighted and astonied and fall into cold sweats: and therefore people vse to putrifie & resolu'e Stelliona in oile, and therewith annoint the wounds that Scorpions haue made. Some there be who make a kind of plaistre of the said oile and litharge of siluer boiled both together, wherewith they rub and annoint the grieved place. This lizard, which we name Stellio, the Greeks call Colores, Acalabotes, and Galeotes: * it breeds not in Italy: but call it what you will, & wheresoeuer it is to be found, full it is of little red spots like lentils; a shrill noise it maketh, that pierceth the eares and goeth through ones head; it doth eat and graze like other beasts, which be marks all contrary to our Stellions or starre-lizards here in Italy. But to come againe vnto the prick of scorpions: it is thought good to rub the same with the ashes of hens dung, mixt with the liuer of a dragon: or to take a lizard that is bursten, and the same to apply vnto the affected place; or a mouse likewise which is clouen in sunder; also to lay to the sore the very same scorpion that did the harm; or to eat him roasted: and last of all, to drinke it in two cyaths of pure wine of the grape. Moreover, this proper qualitie haue scorpions alone by themselves, That they neuer prick the ball of ones hand, nor sting at all vnlesse they may touch some haire. Furthermore, take any little stone whatsoeuer, and apply that side which lay next the ground vnto the wound, it will ease the paine: likewise any shell or potherd which lieth with some part of it couered with earth, if it be taken vp and laid vnto the sore, with earth and all vpon it as it was found lying, is said to heale the same perfectly: but in no wise they that haue the applying of it must looke behind them: they ought also to take heed and be very careful that the Sun shine not vpon them when they are about this businesse. Earth-worms or mads stamped and laid to, are very good to cure the biting of scorpions: and yet they serue besides for many other remedies; in which regard they be ordinarily preferred in hony.

For the sting of Bees, Wesps, and Hornets, for the biting also of those Horseleeches called Bloudsuckers, the Howlat is counted a soueraigne remedie, by a certaine antipathy in nature: also whosoever carry about them the bill of a Woodpecker or Hickway, shall neuer be annoyed with any of the foresaid vermin. The smallest kind of locusts likewise, which are without wings and be called *Atrelabi*, be aduerse and contrarie vnto them all.

Ouer & besides the Insects aboue named, there be in some places certain pismires also very venomous, which *Cicero* calleth *Solpugæ*: but they of Grenado in Spain, *Salpugæ*: howbeit few or none of them are to be found throughout all Italy. But what help is there for them and their poison? Surely the heart of a Remouse, otherwise called a bat, hath an operation which is aduerse not only to them, but to all Ants besides.

As for the flies named *Cantharides*, I haue shewed before how contrarie they be to the venom of the Salamander: and yet considering how hurtfull they be themselves, and a very poison to the bladder, causing intollerable pain if they be drunk down, much dispute & question there is among physitians, * how they should be taken and vsed; for how venomous they be, it may appear by the practise of a certaine Egyptian physitian, whom by occasion that one *Cosinus* a knight of Rome, a great fauorite of the Emperor *Nero*, was infected with the foule tettar called Lichene, the said prince sent for out of Egypt to cure of that disease: but he prepared such a drink of *Cantharides* for his patient *Cosinus*, that it quickly cost him his life and brought him to his graue. Howbeit there is no doubt, but being applied outwardly they are not only harmlesse, but also very good, especially if they be incorporate in the iuice of the blacke wilde Vine called *Vva Taminia*, and sheeps suet or goats tallow. Moreover, albeit well knowne it is that these *Cantharides* be venomous, yet those Authors that write of them be not agreed and resolu'd;

* And yet *Matthiolus* vpon *Dioscorides* saith it is the *Terrantola* which is common in Tuscany.

* Namely, whether they are to be vsed inwardly at all? whether with their wings, head & feet, or without them.

ued, in what part that venom lieth: for some there be who are of opinion, that their feet are poi- G soned; others thinke their mischiefe is all in their head; and there be againe who deny both: but wheresoeuer the said poison lieth, all conclude jointly vpon this point, that their wings be medicinable therefore, and do cure the same. As for the generation of these dangerous flies, they be ingendred of certaine little grubs or wormes; and most commonly vpon the spongyous bals which wee see to grow vpon the stalke or stem of the Eglantine: but surely the greatest plenty of them breed in an Ash tree. As for others that come of a white Rose bush, they are not so vehement in operation as the rest: and of them all, those worke most violently which are spotted and of diuers colours, streaked with yellow lines ouerthwart their wings, and besides are very plumpe and fat. The smaller sort, which also are broad and hairy, are nothing so powerful and speedy in their operation. But the worst of all, and least effectuall in physicke, be those which H are of one entire colour, and leane withall. Now for the manner of preparing and ordering of are of one entire colour, and leane withall. Now for the manner of preparing and ordering of them for physical vses; they would be gotten when Roses be fully out: heaped vp together in one masse, and so bestowed in an arthen pot not pitched, vernished or nealed, the mouth wherof is close stopped with a linnen cloath: then are they to be hanged vp with the mouth of the said pot downward ouer some vinegre boiling with salt, vntill such time as by the fume or vapour thereof steeming through the said linnen clout, they be choked and killed: and afterward they be layd vp and referred for vse. Of a causticke and burning nature they are, in so much as they will raise blisters, yea and leaue an eschar vpon the exulcerat place.

Of the like force be the wormes Pityocampæ, breeding in pitch trees: so is the venomous flie or beetle called Buprestis: and after the same manner be they prepared as the Cantharides: I

All the sort of them in generall be most effectuall to kill the leprosie, and ilfaured terrars called Lichenes. Besides, they haue the name to prouoke womens monethly termes, and vrine, which is the cause that Hippocrates prescribed them to be vsed in a dropsie. To conclude with these Cantharides, I thinke it not amisse to note, That Cato synnamed *Vticensis, was accused and endited for selling of poison; because in the generall portsale of the kings goods, amongst other moueables, he held Cantharides at threescore sesterces a pound, and made so much money of them.

CHAP. V.

¶ Of the Ostrich greace, and of a mad Dog: of Lizards, Geese, Dones, and Weazils, with the medicines that they do yield.

I Cannot chuse but relate also by the way, vpon this occasion ministred, that at the same time Ostrich greace was sold for *eighty Sesterces the pound: and in truth it is much better for any vse it shall be put vnto, than goose greace.

As touching diuers sorts of venomous hony I haue written already: but for to repress the poison thereof, it is good to vse other hony wherein a number of bees haue been forced to die: and such hony so prepared and taken in wine, is a soueraign remedie for all those accidents that may come by eating or surfeiting vpon fish.

For the biting of a mad dog take the ashes of a dogs head burnt, and apply it to the sore, it wil saue the Patient from that symptome of being afraid of water, which is incident to such as be so bitten. [And now by occasion of speech know thus much once for all, That all things which are to be calcined require one and the same manner of burning, that is to say, within a new earthen pot neuer occupied before, well luted all ouer with strong cley, and so set into an ouen or furnace vntill such time as the contents be calcined.] The said ashes made of a Dogs head is singular good likewise to be drunke in the same case: wherfore some haue giuen counsell to eat also a dogs head. Others seeke after the wormes that breed in the carcase of a dead dog, and hang the same fast about the necke or arme of the party that is bitten: or els they lap within a cloath some of the menstrual blood of a woman, and put it vnder the cup or pots bottom out of which the patient drinketh. And there be some againe who burn the haire of the same mad dogs taile, and conueigh the ashes handsomely in some tent of lint into the wound. Moreover it is commonly said, That as many as haue a Dogges head about them, no other Dogges will come neere to do them any harme. In like manner, if a man carry a dogs tongue in his Shooe vnder his great toe, there will no Dogges bay or barke at him. If hee haue

* For that he killed himself at Vtica.

* Some reade thirty.

about him a weazils taile, which hath bene let goe againe after it was cut away. There is to be found under the tongue of a mad dog, a certaine slimy and grosse spittle, which being giuen in drinks to those that are bitten, keep them from the feare of water, which symptome the Greeks call Hydrophobia: but the best and most soueraign remedie of all other, is the liver of the same dog that in his madnesse bit any body, eaten raw, if possibly it may be; if not, yet sodden or boiled any way; or else to cause the Patient for to sup the broth that is made of the same dogs flesh. There is a certaine little worme in dogs tongues, called by a Greeke name Lytta, which if it be taken out when they be young whelpes, they will never after proue mad, nor lose their appetite to meat. The same worme giuen to such as are bitten with a mad dog, preferueth them from beeing mad; but with this charge, that before they take the same, it must be carried three times about the fire. Also the braines of a Cocke, Capon, or Hen, is singular good against the biting of a mad dog: but if one haue eaten the same, the vertue thereof indureth but for that yeare onely, and no longer. It is commonly said, that the crest or combe of a Cocke well bruised and stamped, and so laid in manner of a cataplasme to the place bitten, is very effectuall to cure it: as also the grease of a goose incorporate with honey. Furthermore, some there be who vse to salt the flesh of dogs which haue bin mad, and so keepe it to giue in meat vnto those who chance to be bitten by others. There be, who take some young whelpes, male or female according to the sex of dog or bitch that hath bitten any one, and presently drowne them in water, causing the Patient to eat their liuers raw. The yellow or reddish dounge of a cock or a hen, dissolved in vineger, and applied to the sore, is singular good. The ashes also of an hardy shrewes taile, provided alwaies, that the shrew were let goe aliuie, so soone as the was curt-tailed. Moreover, a piece of clay taken from a swallows nest, made into a liniment with vineger: or the ashes of young swallows newly hatched and burnt: the old skin also or slough which a snake vseth to cast off in the spring time, stamped with a male crab-fish, and with wine brought into a Cataplasme, be all especiall remedies for the biting of a mad dog. As for the skinn or spoile of a snake, if it be put alone in a chist, presse or wardrobe, among cloaths, it will kil the moth. But to come againe vnto a mad dog: his poison is so strong, that whosoever do but tread vpon his vrine, especially if they have any sore or vlcere about them, they shall sensibly feelee hurt thereby. Now what remedie is there for such? None better than the dunge of a caple, well wet and tempered with vineger, and the same laid very hot within a fig to the foresaid sore. These may seeme to some men strange things & monstrous; but lesse will they wonder hereat, when they shall heare and consider that a stone which a *dog hath taken vp with his mouth and bitten, wil cause debate and diffention in the company where it is: and yet this is held for a certain truth, in so much as it is growne into a common prouerbe and by-word, when we perceiue those that dwell in one house together to be euermore jarring and at variance one with another, to say, You haue a dog-bitten stone here among you. Again, whosoever maketh water in the same place where a dog hath newly pissed, so as both vrines be mingled together, shall immediatly find a coldnesse and astonishment in his loines, as folke say.

That kinde of Lizard, which of some Greeks is called Seps, of others Chalidicum, hath a venomous tooth: howbeit, the same worme or serpent taken in drinke, cureth the bit which it selfe inflicted.

If wilde Weazils haue empoisoned any body, let the patient take a large draught of the broth of an old Cocke, he shall finde it to bee a very soueraign remedie therefore: but about all, it is most effectuall against the poison of the herbe Aconitum; hut then it must be giuen with a litle salt among.

Against the poison of venomous Tadstoles and hurtfull Mushromes, hens dounge (I meane that part alone which is white) sodden with *Hyssope or bonied wine, is singular good, for it represseth and killeth the malice thereof. And the same otherwise keepeth downe ventosities, and stuffing of the stomacke, ready to choke one. Whereat I cannot chuse but maruell much, considering that if any other living creatures do tast never so little of the said dunge (but man or woman onely) they shall be exceedingly vexed with winde in the belly, and other grieuous wrings and torments.

The Sea-hare is knowne to be venomous; but goose blood taken with an equall quantity of oile is a soueraign counterpoison for it. Of this blood, incorporat with the best Terra Sigillata of the Island Lemnos, and the iuice of the S. Mary thistle called Bedegnar, there be excellent

* For the manner of a dog is to be angry with the stone that is thrown at him, with-out regard of the party that slung it: whereupon grew the Prouerbe in Greeke, *ὁ κυνὸς ὀργίζεται ἀπὸ τοῦ λίθου*.

* In hyssope decocted, but must be some reade, *cu hyssopo decoctum in mulle*. i. Boiled with tried grease of sheeps wool, in bonied wine.

trochisks made weighing siue drams apeece, which are vsually kept in a readinesse for to be drinke in three cyaths of water as a counterpoison and countercharme, against all venomous confections and diuellish forceries: for which purpose serueth also a yong sucking Weazill prepared in manner aforesaid. The rennet in a lambs maw likewise, is passing good for any such indirect means wrought by poison or witchcraft: like as the blood of ducks and mallards bred in the realm of Pontus: and therefore their blood is ordinarily kept dry in a thicke masse, and as need requireth is dissolued and giuen in wine: but some think, that the blood of the female duck is better than that of the mallard or drake. Semblably, the gesier of a stork, and the rennet or read of a sheep, is thought to be singular good for any poisons whatsoeuer. The broth or decoction of Coleworts boiled with Rams mutton, hath a peculiar vertue against the Cantharides. Ewes milke also drunke warm, availeth much against all poisons, vlesse it be the venomous flie Buprestis, or the deadly herb Aconitum. The dung of wild quoisits or stockdoves taken in drink, hath a speciall vertue to helpe those that haue drunke quicke-siluer. Finally, the flesh of the ordinary or common house weazill kept in salt, is a present counterpoison against all venome that goeth vnder the name of Toxicum, if one drinke of it the weight of two drams.

CHAP. VI.

¶ Medicines to bring haire againe in places that by some disease are bald: also to rid away nits: for
to rectifie and keepe in order the Eye-lids, and the haire growing thereupon: for to cure the
pearle in the Eye: and generally for all the accidents befalling to the Eyes: last-
ly, for the impostumal kernels behind the eares.

THe naked places in head or beard, are replenished again with haire by a liniment made of the ashes of sheeps dung incorporat in Cyprin oile & hony: also with the ashes of mules or mullets houses, applied with oile of Myrtles. Our countryman and Latine writer *Varro* affirmeth moreouer, That the dung of mice (which he by a proper name calleth * Muscerda) is a convenient medicine for the said infirmity and defect: he attributeth also the same operation to the heads of flies applied fresh to the bald place, if so be the same were before rubbed hard, and in some sort fretted with a figtree leafe. Some vse in this case the bloud of flies: others mingle their ashes with the ashes of paper vsed in old time, or els of nuts, with this proportion, that there be a third part only of the ashes of flies to the rest, and herewith for 10 daies together rub the bare places where the haire is gone. Some there be again, who temper and incorporat together the said ashes of flies with the juice of the Colewort and brest-milk: others take nothing thereto but hony. Certes, a strange thing it is of these flies, which are taken to be as senselesse and witlesse creatures, yea, and of as little capacity and vnderstanding as any other whatsoeuer: and yet at the solemne games and plaies holden euery fifth yeare at Olympia, no sooner is the bull sacrificed there to the Idoll or god of Flies called * Myiodes, but a man shall fee (a wonderfull thing to tell) in infinit thousands of flies depart out of that territory by flights, as it were thicke clouds. But to come again to the foresaid infirmity of haire-shedding: the ashes of the heads, tails, yea and the whole bodies of mice burnt, are very good to make it come again, especially if the haire went off by occasion of some venomous matter or poison: so are the ashes of an vrchin or hedgehog medled with hony: or the skin thereof burnt and applied with tar. As for the head alone of an vrchin consumed into ashes, it is thought so effectual for this purpose, that it will cause haire to grow again vpon a skar: but for the cure of the foresaid defect of haire, called Alopecia, the places ought before the application of those topicke medicines, to be well prepared with the razor, and a sinapisme or rubefacatiue made of mustard-seed, vntill the place look red: howbeit, some chuse rather to take vineger vnto it. Here note by the way, that whatsoever vertue we attribute vnto hedgehogs, the same is more effectual in the porkespine. Moreover, Lizards torried yea and calcined as I haue shewed before, with the root of reeds or canes that be green and new drawn (which that it may burne the better with the Lizards, ought to be sliced small) yeeld ashes, which being incorporat well in oile of myrtles, doe retain the haire and keep it from shedding, if the place be annointed therewith: and the green lizards in this cure and operation be simply the best: but if you would haue this medicine to work more effectually, put thereto salt, Bears grease, and Onions stamped. Some there be, who in ten sextars of old oile seeth ten Greene Lizards, and therewith make a liniment, thinking it sufficient therewith to

*The Latines
in old time af-
ter the same
analogie cal-
led the dung
offwine, *Su-
cerda*, of king
and oxen. *Bu-
cerda*, like as
the ordure of
men, *Homerda*

* This Idoll of
the Panims, I
take to be cal-
led in the ho-
ly Scripture,
Beel-zebub.

A to anoint the place once a moneth, and no oftener. The athers of viper skins doth raise haire quickly againe and make it grow aspe, where it was shed. So doth Hens dung that is fresh and new, if the place be plied with anointing. Take a rauens eggs, put mixe it with the dung afore said in a vessell of brasle, and therewith rub and anoint the head (so that it were shaven before) it will cause the new haire to come vp blacke: but untill this vnguent be dried vpon the head, the patient must hold oile in his mouth, for feare lest the teeth also by this means turn blacke: and withall, this ought to be done in the shade or within house, and the foresaid ointment not to be washed off in 4 daies space. Others in this cure, use the blood and brains of a rauē, together with some thick and deep coloured wine. Some boile a rauē thoroughly, untill the flesh be parted from the bones, and in the dead time of the night when euery body is found asleepe, put **B** him vp into some pot or vessell of lead. There be again, who hauing prepared and rubified the skin with salaitre, do anoint the place where the haire is gone or groweth thin, with a liniment made of Cantharides and tar panned & incorporat together. Now forasmuch as Cantharides be of a caustick quality and corrosiue, great heed would be taken that they doe not fret and eat into the skin over deep. Now when the place is thus prepared, and lightly exulcerat, they ordain to apply thereto a liniment made of mice heads and their galls, incorporat and wrought together with their dung, putting thereto Ellebore and Pepper.

The head many times is pestered with nits, but for to rid them away, there is not a better thing than dogs greafe. Some for this purpose make a dish of meat with suakes, dressing and ordering them as eels, and so eat them, or els they take their slough which they slip off in the spring time, and drinke the same.

Otherwhiles there be certaine branny scales called dandruffe, which over-spread the head to
 cleanse it from this scurfe and deformity, it were not amisse to annoint the head with sheeps gal
 tempered with fullers *scouring clay, and let it remaine on the head vntill it be drie.

For the painfull head-ache, it is commonly thought, that the heads of naked snails (I meane those that be found without shels, and are vnsperfect yet and not fully made) plucked from their bodies are a singular remedy to be hung about the neck or tied to the head; with this charge, that there be taken forth of their heads first, a certain stony hard substance, which is made flat and broad like a thin grauell stone: and it the said snails be but yong and small, they vse to stamp them, and in manner of a frontall apply them to the forehead. In like manner, the bones of a Vultures head, whether it be the common Geire, or that which the Greeks call *Aegyptios*, hanged about the neck or fastned to the arms: also the brains of the said soule tempered with the oile of Cedar-rosin, driueth away the head-ache, if either the head be thoroughly annoyned, or the nostrils within forth, therewith. The brains of a crow or of an owle, being foddened and eaten wil do as much. Some think it good in this case, to lap the head and forehead with the feathers or plume pluckt from about the neck of a cocke, or with his crested combe, but it must bee of such a cock as hath bin close shut up as a prisoner and kept from meat and drinke a whole day and a night; but take this withall, the patient who is troubled with the head-ach, must fast as long from all meat and drink. The ashes of a rat or weazill applied to the forehead, ease the pain, so doth a twig or stick taken from a purtocks nest, laid under the pillow of the sick person;

* *Creta cinnamomea*
Tuckers
earth.

" *Under the*
confusion of
language *lies*
Either when
the barber
would stop the
orifice of a
vaine after
blood-letting:
or when one
that is newly
wounded, com-
meth forth
bleeding to be
dressed: or if
his own rasor
chance to go
away & haue
to the quick,
whilst he hath
a man under
his hand to
trim.

pinion, because that bloud is hotter, and therefore by so much the better. But when the eies bee dressed with this bloud, it would not be forgotten, that there be a thin soldier boiled in honey, laid aloft, yea, and a lock of greafe wooll vpon it, which had bin soaked either in oile or wine. The bloud of the fouls abouenamed helpeth those that cannot see toward a night: the liuer al- so of a sheep doth the same: but if the said sheepe be of a russet or browne colour, the medicine will do the better: for as I obserued before in Goats, those that carry such a coat, bee alwaies e- steemed best. Many giue counsell to foment and wash the eies with the decoction of the said liuer: and if they be in pain and swollen withall, they aduise to annoint them with the marrow of a Mutton. They promise also, That the ashes of frich owles eyes put into a collyrie, will e- rise the sight. Indeed the dung of Turtles consumeth the white pearles in the eyes, so doth the ashes of shell-snailles or hoddidods: as also the metting of the kestrell Cenchris, which the Greeke writers will haue to be a kind of Hawke. As for the spot or pearle in the eie called Ar- gema, it may be cured by all those medicines aboue rehearsed, so that they be applied thereto with hony. But the best hony simply for the eies, is that wherein a number of Bees were forced to die. Whosoever hath eaten a young storke out of the nest, he shall (they say) continue many yeares together, and neuer be troubled with inflamed or bleared eies: like as they that carrie a- bout them a Dragons head. It is said moreover, That the Dragons greafe incorporat in honey and old oile, dispatcheth and scattereth the filmes and webs that trouble the sight, if they bee taken betimes before they be grown too thicke. Some there be who at the full of a Moone put our the eies of yong swallows, marking the time when they haue recovered their sight againe: for then they pluck off their heads and burne them to ashes, which being tempered with hony, they vse for to cleare their owne sight, to ease the pains, and discusse the blearednesse of eies, yea and to heale them, if they haue caught a blow or ruff. As for Lizards, they vse to prepare them many and sundry waies for the infirmities incident to the eies. Some take the green Lizard and put her close within a new earthen pot that neuer was occupied, and therewith 9 of those little stones which the Greeks call * Cinædia, (and these are vsually applied vnto the shere for the swelling glandules and tumors that many times rise there) marking euery one of them respec- tively by themselves: which being done, they take forth of the pot euery day one; & when the ninth day is come, they let out the Lizard, and then they keepe the said stones thus ordered and prepared, as foueraigne remedies to allay the pain and griefe of the eies. Others get a green Lizard and put out her eies, and bestow her in a glasse with a bed of earth vnder her in the bot- tom thereof, and withall, inclose within the said glasse certaine rings, either of solid yron or masse gold: and so soon as they perceine through the glasse, that the Lizard hath recovered her sight againe, they let her forth: but the said rings they keep with great care and regard, as a spe- ciall meanes for to helpe any bleared eies. There be moreover who vse the ashes of a Lizards head in stead of Stribium or Antimonium, for to make smooth the roughnesse of the eye-lids. Some hunt after green Lizards with long neckes, which breed in sandy and gravelly grounds, and when they be gotten, burne them to ashes, with which they vse to repress the flux of wa- terish humors which begin to fall into the eies, yea, and therewith consume the red pearls grow- ing therein. It is said moreover, That if a Weasels eies be pecked or plucked out of the head, they will come againe, and shew will recouer her sight: and therefore they practise the like with rings and them together, as I obserued before in Lizards. Furthermore, it is said, That as many as carry about them the right eie of a serpent tied vnto any part, it is very good for to stay the violent rheumes that haue taken to the eies, but then in any wise the serpent must be let goe a- liue after that she hath lost her eie. As touching those eies which be euermore weeping, and do stand full of water continually, the ashes of the star-lizards head called Strellio, together with Antimonium, helpeth them exceeding much. The copweb which the common Spider ma- keth, that vseth to catch flies; but especially that which shee hath wouen for her nest or hole wherein she lieth her selfe, is foueraigne good for the flux of humours into the eyes, if the same be applied all ouer the forehead, so as it meet with the temples on both sides: but wot you what, none must haue the doing hereof, either to get the said copwebs, or to lay it vnto the place, but a young lad not as yet vndergrowne, nor foueteene yeares of age: neither must he be of the partie whom hee cureth, in three daies after: ne yet during the space of those three dayes must either hee or his Patient touch the ground with their bare feet: VVhich cir- cumstances and ceremonies being duely obserued, it is wonderfull to see what a cure will follow

* Because they
be found in the
sh called Cin-
ædia.

A follow thereupon. Furthermore, it is said, That these white spiders with the long and slender legs, being punned and incorporat in old oile, be singular for to consume the white pearle in the eie, if the same be dressed with that composition. Also those spiders that worke ordinarily vn- der rooves, rafters, and boarded floores of houses, and weaue the thickest webs, if any of them be inwrapped within a piece of cloth and kept bound to the eies or forehead, do refraine for euer the said rheumes and catarrhes that haue found a way to the eies. The greene Beetle hath a property naturally to quicken their sight who do but behold them: and therefore these lapida- ries and cutters or grauers in precious stones, if they may haue an eie of them once & looke vp- on them, take no more care for their eie-sight, how it should serue their turnes when they are at their worke. Thus much of eies.

B As concerning the ears and the infirmities incident vn them, there is not a better thing to mundifie and cleanse them than a sheepes gall with hony: and a bitches milke if it be dropped into them, easeth their paine. Dogs greafe tempered with Wormewood and old oile, helpeth those that be hard of hearing, so doth Goose greafe: howbeit, some put thereto the juice of an Onion & Garlick, of each a like quantity. In this case also there is much vse of Ants eggs alone without any thing els: for as little and silly a creature as it is, yet she is not without some medi- cinable vertues: in so much, as Beares, when they feele themselves sickish or not well at ease, cure themselves with eating Pismires. As for the manner of preparing as well the greafe of a goose as of all other fouls, this it is: first the fat ought to be clenfed and rid from all the skins, veines, and strings that are among it, and then to be laid abroad to the Sun in an earthen pan, covered ouer with a new lid of earth likewise which had neuer bin vsed: this done, the foresaid pan must be fet ouer seething water, that the said greafe may melt: and then it is to passe through linnen bags that it may be tried from all the grosse cratchens: and so they put it vp in a new earthen pot, & set it in some cold place against the time that it is to be vsed: howbeit, this is wel known, That if some hony be put thereto, it is lesse subject to corruption or putrifaction. Moreover, the ashes of burnt mice incorporat in hony, or els sodden with oile of Roses, allaieth the pain in the eares if it be intilled into them. But in case some earwig or such like vermine be crept into the eares, there is not the like means to cause it to come forth again, as is the gall of mice dissolved in vineger & dropped into them. Also when water is gotten into the head by the eares, Goose greafe, together with the juice of an Onion, is singular good to draw it out. Moreover, there is a notable medicine made of dormice for all infirmities of the ears, which otherwise could not be cured, but were giuen ouer by all Physitians: for the making whereof, they take a dormouse and flea it, and after the guts and entrails be taken forth, they seeth the same with hony in a new ear- then vessell. Howbeit, some Physitians there bee who thinke it better to boile the same with Spikenard, vntill a third part be consumed, and so reserue it for their vse: and whensoever after there is need of it, the manner is to infuse the said liquour warme into the eare by a pipe or in- strument called an Otenchyte. This is knowne by experience to heale all the accidents of the eares, though otherwise incurable. Also the decoction of earth-worms boiled with Goose greafe is singular good likewise to be poured into the eares. But if the eares be exulcerat, broken out, and do run matter, the red worms ingendred about trees stamped in a mortar with oile, are very pro- per to heale the same, if they be applied thereto. Lizards that haue hanged vp a long time a dry- ing with their mouths downward, if they be punned with salt, serue to heale the eares that haue caught some hurt either by bruise, crush, or stripe. But aboue all other, the Lizards that haue brown spots vpon them like rusty yron, and are straked along the taile with lines, are most effe- ctual for these infirmities. As touching the Wool-beads or Caterpillers, which some cal Mil- lepedæ, others, Multipedæ or Centipedæ, which are a kind of earth-wormes keeping vpon the ground, all hairy, hauing many feet, & courbing arch wise as they creep, and if you touch them, they wil gather round together: the Greekes, some call them * Oniscos, others Tylos: these * worms (I say) are very effectual to assuage the pain of the eares, if they be sodden with the juice of Porret in the rind of a pomgranat: some put thereto oile of Roses, & giue aduise to poure this medicine into the contrary eare that is not pained. As for that worm or vermin which riseth not archwise with some part of the body in creeping, the Greekes, some cal it Seps, others Scolopen- dra; which though it be lesse than the former described, yet mischievous enough & venomous, The snails that carry shels vpon their backe, and are vsually dressed for good meat, applied with Myrthe or the powder of Frankincense, are very good for the eares that be crackt: so are the lit-

* Pliny con-
foundeth Oni-
cos (which wee
call a Sow or
Wood-louse)
with the Cater-
pillar or wool-
bead Millepe-
da.

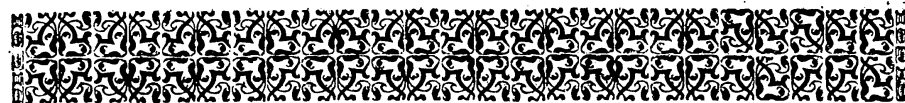
* Indeed our
Sows or wood-
lice, called o-
therwise Por-
celliones, and
Multipedæ,
but not Mil-
lepedæ, & which
if one touch
them, draw
themselves
round, are
good for the
pain of the
eares: but not
the foresaid
Wool beads
or Caterpillers
Millepedæ,
which in their
creeping rise
and fall, &c.

tle and broad shailles brought into the forme of a liniment with hony, and laid too according- G
ly. The sloughs or skins that serpents cast, calcined upon a tile or porthard red hot, and so redu-
ced into ashes and incorporat with hony, are very medicinale for all the accidents of the eares,
if the same be dropped into them; but principally when they stink or yeeld from them a strong
favour; but if they be full of purulent matter, and run withall, it were better to mingle the same
with vinegar in stead of hony: but best of all with the gall of a Goat, a Boeuf, or a sea-Tortois.
The foresaid sloughs or skins if they be above one yere old, or have caught much wet by raine
and water, haue lost their vertue, & do no good, as some are of opinion. Moreover, the bloudie
humour that commeth from a spider, either tempered with the oile of Roses, or els alone by it
selfe vpon a locke of wooll, or with a little Saffron, is very good for the eares: so is the Cricket
digged vp and applied to the place earth and all where it lay. *Nigidius* attributeth many
perties to this poore creature, and esteemeth it not a little; but the Magitians much more a fair
deale: and why so? Forsooth because it goeth as it were reculing backward, it pierceth and bo-
reth an hole into the ground, and neuer ceaseth all night long to creake very shrill. The manner
of hunting and catching them is this. They take a flie and tie it about the midst at the end of
a long haire of ones head, and so put the said flie into the mouth of the Crickets hole: but first
they blow the dust away with their mouth, for feare lest the flie should hold her selfe therein:
the Cricket spies the silly flie. sealeth vp in her presently and clasperh her round, and so they
are both drawne forth together by the said haire. The inner skin of a Hens giser, which the
cook vseth to cast away, if it be kept and dried, and so beaten to pouder and mingled with wine,
is good to be dropped or poured hot into the eares that runne with matter: so is the fat also I
of an Hen. There is a certaine kind of fattinesse to be found in the flie or insect called * Blatta,
when the head is plucked off, which if it be punned & mixed with oile of Roses, is (as they say)
wonderfull good for the eares: but the wooll wherein this medicine is inwrapped, and which is
put into the eares, must not long tarry there, but within a little while be drawne forth againe;
for the said fat will verie soone get life and proue a grub or little worm. Somewriters there be
who affirm, That two or three of these flies called Blattæ sodden in oile, make a soueraigne me-
dicine to cure the eares: and that if they be stamped and spread upon a linnen rag and so appli-
ed, they will heale the eares, if they be hurt by any bruise or contusion: Certes this is but a na-
stie and ill favoured vermine, howbeit in regard of the manifold and admirable properties
which naturally it hath, as also of the industrie of our Ancestors in searching out the nature of K
it, I am moved to write thereof at large and to the full in this place. For they have described
many kindes of them. In the first place, some of them be soft and tender, which being sodden
in oile, they haue proued by experience to be of great efficacie in fetching off werts, if they bee
annointed therewith. A second sort there is, which they call Mylœcon, because ordinarily it
haunteth about mills and bake-houses, and there breedeth: these, by the report of *Musa* and
Pyetion two famous Physitians, being bruised (after their heads were gone) and applied to a bo-
dy infected with the leprosie, cured the same perfectly. They of a third kind, besides that they
be otherwise ill favoured enough, carry a lothsome and odious smell with them: they are sharp
rumped and pin buttock also: howbeit, being incorporate with the oile of pitch called Pisse-
leon, they haue healed those vlcers which were thought, *Nunquam sana*, and incurable. Also L
Leon, they haue healed those vlcers which were thought, *Nunquam sana*, and incurable. Also
led the Kings evil: the botches or biles named Pani, wounds, contusions, bruises, morimals,
scabs, and fellons: but then their feet and wings were plucked off and cast away. I make no
doubt or question, but that some of vs are so dainty and fine eared, that our stomacke riseth at
the hearing onely of such medicines: and yet I assure you, *Diodorus* a renowned Physitian, re-
porteth, That he hath giuen these foure flies inwardly with rosin and hony, for the jaundise, and
to those that were so strait winded that they could not draw their breath but sitting vpright.
See what libertie and power ouer vs these Physitians haue, who to practise and trie conclusi-
ons vpon our bodies, may exhibite vnto their Patients what they list, bee it neuer so home-
ly, so it goe vnder the name of a medicine. Howbeit, some of the more ciuile sort, and who M
carried with them a better regard of man-hood and humanitie, thought it better and a more
cleanelly kinde of Physicke, to referue in boxes of horne the ashes of them burnt, for the vses a-
bouenamed. Others also would beat them (after they were dried) into pouder, and minister
them in manner of a clystire vnto those that were * Orthopnoicke and Rheumaticke.
Certes,

* which Pliny
saith for a
kind of Scar-
bees or Beetle.

* Orthopnoici:
Such as cannot
take their
wind but sit-
ting vpright.

A Certes it is well knowne and confessed, that a liniment made of them will draw forth prickles,
thorns, spils, and whatsoeuer sticketh fast within the flesh. Moreover, the honey wherein Bees
were extinct and killed, is soueraigne for the diseases of the eares. As for the impostumes and
swellings arising behinde the eares, called Pacorides, Pigeons dung applied thereunto, either
alone by it selfe, or with barley meale and oar-meale, driueth them backe or keepeth them downe.
Also the liuer or brains of an Owle being resolued in some convenient liquor, and applied ac-
cordingly, cureth the accidents of the lap of the eare, and the foresaid impostumations, so doth
a liniment made of the wormes called Sowes, together with the third part of rosin: and lastly,
the cricquets about rehearsed, either reduced into a liniment, or else bound to, whole as they be,
are good in these cases. Thus much concerning those maladies about specified: it remaineth
B now to proceed vnto other diseases, and the medicinale receipts respectiue vnto them, drawne
either from the same creatures, or els from others of that kinde: whereof I purpose to treat and
discourse in the next booke ensuing.



THE THIRTIETH BOOKE OF THE HISTORIE OF NATVRE,

WRITTEN BY C. PLINIUS

SEC VNDVS.

The Proem.

CHAP. I.

¶ The originall and beginning of Art Magicke. When it first began, and who were the
inventors of it. By whom it was practised and aduanced. Also other
Receipts or medicines drawne from Beasts.

THe folly and vanitie of Art Magicke I haue oftentimes already taxed and confu-
ted sufficiently in my former books, when and wheresoeuer iust occasion and fit
opportunitie was offered; and still my purpose and intention is to discouer and
lay open the abuse thereof in some few points behind. And yet I must needs say
the argument is such as deferueth a large and ample discourse, if there were but
this only to enduce me, That notwithstanding it be of all arts fullest of fraud, de-
ceit, and couenage, yet neuer was there any throughout the whole world either with like credit
professed, or so long time vpheld & maintained. Now if a man consider the thing well, no mar-
nell it is that it hath continued thus in so great request and authoritie: for it is the onely Sci-
ence which seemeth to comprise in it selfe three professions besides, which haue the command
and rule of mans minde about any other whatsoeuer. For to begin withall, no man doubteth
but that Magicke tooke root first and proceeded from physicke, vnder the pretence of main-
taining health, curing and preventing diseases: things plausible to the world crept and insinua-
ted farther into the heart of man, with a deepe conceit of some high and diuine matter therein
more than ordinarie, and in comparifon thereof all other physicke was but basely accounted.
And hauing thus made way and entrance, the better to fortifie it selfe, and to giue a goodly
colour and lustre to those faire and flattering promises of things, which our nature is most
giuen

The nine and twentieth Booke

giuen to hearken after, on goeth the habit also & cloke of religion: a point I may tel you that G
euen in these days holdeth captiuate the spirit of man, and draweth away with it a greater part
of the world, and nothing so much. But not content with this successe and good proceeding, to
gather more strength and win a greater name, the intermingled with medicinale receipts & Re-
ligious ceremonies, the skill of Astrologic and arts Mathematical; presuming vpon this, That
all men by nature are very curious and desirous to know their future fortunes, and what shal be-
tide them hereafter, perswading themselves, that all such foreknowledge depends on the course
and influence of the stars, which giue the truest and most certain light of things to come. Being
thus wholly possessed of men, and hauing their senses and vnderstanding by this meanes fast e-
nough bound with three sure chaines, no maruell if this art grew in proceesse of time to such an
head, that it was and is at this day reputed by most nations of the earth, for the paragon & chief H
of all sciences: insomuch as the mighty kings and monarchs of the Levant are altogether ruled
thereby. And verily there is no question at all, but that in those East parts, and namely in the
realme of Persia, it found first footing, and was inuented and practised there by * Zoroastres, as
all writers in one accord agree. But whether there was but that one Zoroastres, or more afterward
of that name, it is not yet so certainly resolved vpon by all Auhors: for Eudoxus (who held art
Magick to be of all professions philosophical and learned disciplines, the most excellent and
profitable science) hath recorded, that this Zoroastres, to whom is ascribed the inuention thereof,
liued and flourished * 6000 yeares before the death of Plato. And of his minde is Aristotle also.
Howbeit Hermippus, who wrote of that art most exquisitely, and commented vpon the Poeme of
Zoroastres, containing * a hundred thousand verses twenty times told, of his making; and made I
besides a Repertorie or Index to euery booke of the said Poësie: this Hermippus (I say) reports,
That one Azonaces taught Zoroastres Art Magick; which master of his liued 5000 yeares before
the war of Troy. Certes I cannot chuse but maruell much, first, That this Science and the me-
moriall thereof should so long continue, and the Commentaries treating of it not miscary and
be lost all the while, during such a world of years: considering besides, that neither it was ordi-
narily practised and continued by tradition from age to age; nor the successors in that facul-
tie were professors of the greatest name, and renowned by any writings. For what one is there
of those who are named for the only Magicians in their time, to wit, Apusormus & Zaratus Medi-
ans, Marmaridius of Babylon, Hippocemus the Arabian, and Zarmocenidas of Assyria. For bookes K
haue we none extant of their writing, nor any monuments which beare record and giue testimo-
nie of such clerks. But the greatest wonder of all is this, that Homer the Poet in his Ilias (a poem
composed purposely of the Trojan war) hath not so much as one word of Magick; and yet in
his Odyssey, where he discourseth of the aduentures, trauels, & fortunes of prince Phylles, such
a do and stirre there is with it, as if the whole work consisted of nothing else but magicke. For
what is meant by the variable transformations of * Proteus, or by the songs of the * Mermaids,
whereof he writeth so much; but that the one was a great forcerer, the other famous witches or
Inchantresses. As for that which he relateth of lady Circe, how shee wrought her feats by con-
juration only, and raising vp infernal spirits; surely it fauoreth of art Magick and nothing else. I
must much also, that after Homers time there is no writer maketh mention how this art arriued L
at Telsemus, a city [in the marches of Lycia] wholly addicted to religion, & so famous for the
colledge of priests and soothsayers there: or at what time it made a voiage and passed ouer into
Thessaly; where it reigned to rise, and was so vsually practised in euery towne & city, that with
vs here in these parts of the world it tooke the denomination of * that countrey, and retained
the same a long time, notwithstanding that the word Magicke indeed was appropriate vnto a
strange and far remote Nation. And verily, considering how about the time of the war and de-
struction of Troy, there was no other physick in vse but that which Chiron the Surgeon practi-
sed, and that during the heat and bloudy wars only; it seemeth very strange and wonderfull to
me, That the nation of Thessaly, and the native country of Achilles [and Chiron] should become
so famous for magicke: insomuch as Menander also (a Poet by all mens iudgement so framed by M
nature for deep learning and excellent literature, as that he had no concurrent in his time that
came neere vnto him) entituled one of his Comedies, Thessalica; wherein he deciphered and
depainted liuely vnto vs the whole order and manner of witches, with all their charmes and in-
cantations, by the vertue wherof they would seem to pull the Moon down from heauen. I would
haue

* K. of the B-
arians, which
some take to
be Abrahams.
* It seems that
in this calcula-
tion of yeares,
Pliny mistakes
the number
for Plutarch
saith he liued
600 yeares be-
fore the Tro-
jan war, or els
that he means
Lunares annos.
* Vices centis
millia versum,
i. two millions
of verses.
* Diadmus Si-
culus saith that
this was mear-
ly a fiction, ar-
ising herupon,
That Proteus
being king of
Egypt, accord-
ing to the cu-
stome of the
Egyptian kings
for greater
maiesty and
state, shewed
himself abroad
adorned with
the ensignes, re-
presenting a
Bull, Dragon,
Lion, tree, fire,
and such like:
altering these
soonesthose
ornaments,
which contain-
ed some hiero-
glyphy call
mysterics ap-
propriate to the
person of a
King.
* Three daugh-
ters of Achil-
lus & Caliope
whose names
were Parthe-
nope, Ligia, and
Leucosie, repu-
ted witches, &
able to doe
great matters
by charmes.
* For properly
the Magi were
the wife men
of Persia, and
yet at Rome
they vsually
termed Magi-
tians by the
name of The-
ssalians.

A haue thought that Oshpeus soon after and in the age next ensuing, had brought in first these su-
perstitious ceremonies, by reason of the propinquity and neighborhood of that region, and that
he proceeded therewith to the aduancement of physick, but for one thing which plucketh me
back, namely, that Thrace his naturall country and the place of his birth, was altogether igno-
rant of Magick, and knew not what it meant. But as far as euer I could finde, the first that is re-
corded to haue commented and written of this art, was Oshpeus, who accompanied Xerxes K. of
the Persians, in that voiage and expedition which (in warlike manner) he made into Greece: and
to say a truth, he it was that sowed the seeds of this monstrous Art, and infected therewith by
the way, all parts of the world wherefoeuer he went and came. Howbeit, those Authors, and hi-
storographers who haue searched more neerly into the matter, let down another Zoroastres, born
in the Isle Proconnesus, who wrote somewhat before Oshpeus, of that argument: neuertheless, B
this is held for certain; That Oshpeus was the man, who most of all other for the Greeke nations
not onely in a hor desire, but also in a madding fit and enraged as it were after Magick. And yet
I must needs say that I haue obserued, that not only at first, but also from time to time, the grea-
test name that went of learned men and great philosophers, for their singular skill and profound
knowledge, arose from the opinion that was of their insight in this Science. Certain it is, that
Pythagoras, Empedocles, Democritus, and Plato, were so far in loue therewith, that for to attaine the
knowledge thereof, they vndertooke many voiajes and journies ouer sea and land, as exiled and
banished persons, wandering from place to place, more like trauellers than students; and being
returned againe into their owne countries, this Art they blazed abroad and highly praised, this
they held as a secret and diuine mysterie. As for Democritus, he raised a great name of Apolloni-
ces Captidones, and Dardanus of Phoenicia, as well by the Books of Dardanus his master (which he
fetcht from out of his sepulchre where they were bestowed) as also by publishing commen-
taries of his owne, which were extracts and draughts out of those authors and their writings;
which afterwards, receiued and learned by others, so passed from hand to hand, and were so deep-
ly ingrauen and imprinted in the minds and memories of men, that I assure you I wonder at no-
thing in the world so much, for so full they are of lyes, & so little or no truth, godlineffe, and ho-
nesty is contained in them, that men of iudgement and vnderstanding who approue and esteem
his other Books of Philosophie, will not beleeeve that these workes were of Democritus his ma-
king: howbeit, this is but a vaine conceit and persuation of theirs; for well it is knowne & con-
fessed, that Democritus led away an infinite number of people by this means, & no man so much;
filling their heads with many faire promises, and the sweet impression thereof rauished their
spirits after this Art. Moreouer, there is yet one point more, whereat I wonder as much as at any
other; to wit, that these two professions (Physicke I mean and Magick) flourished both together
in one age, and shewed themselves in their greatest glory, which was about the Peloponnefiack
war in Greece, 300 yeares after the foundation of our citie of Rome; at what time as Hippocrates
professed the one, and Democritus for his part published the other. Now there is another faction
(as it were) of Magicians, which tooke the first foundation from Moyses, * Iannes, and Iotapes,
Iewes; but many thousands of yeares after Zoroastres: and yet the * Cyprian Magicke is later
than so by as many yeares. But to come againe vnto our Magicke aboue said: there was a second
Oshpeus in the daies of K. Alexander the Great, who (by reason that he attended vpon him in his
train, during his journies and voiajes that he made) was himself in great reputation abroad, and
by meanes thereof gaue no small credit and authority to his profession; for that hee had, op-
portunity thereby (as no man need to doubt) to trauell and compass the globe of the earth, and
so to spread and diuylge this learning in all parts. And verily, that this doctrine hath bin here-
tofore receiued in some nations of Italy, it appeareth as well by good euidences and records ex-
tant at this day in the body of our Law written in the 12 Tables, as by other arguments and tes-
timonies which I haue alledged in the former Booke. Certes, in the 657 yeare after the foun-
dation of Rome citie, and not before (which fell out to be when Cn. Cornelius Lepidus and P. Li-
cinius Crassus were Consuls) there passed a decree and act of the Senat, forbidding expressly the
killing of mankind for sacrifice: whereby we may evidently see, that vntill this inhibition or
restraint came forth, our progenitors and ancestors were giuen to those inhumane and mon-
strous sacrifices. No question there is verily, but that this Art of Magicke was professed in
France, and continued vntill our daies: for no longer is it agoe than since the time of Tiberius
Cesar, that their Druidæ (the Priests and Wisemen of France) were by his authority put down,
K k
together

* It should seeme
that these were the
Magicians of Phoe-
nia, of whom S. Paul
2 Tim. 3. chap. ma-
keth mention, who
would haue con-
verted the mi-
racles wrought by
Moyses: where note,
that Pliny, ignorant
in the holy Scrip-
tures, and void of
true religion, ran-
geth Moyses the pro-
phet, and faithfull
sequant of almighty
God, with such
forerunners and en-
chanters. For the
Painims, wanting
the light of the gos-
pell, attributed all
effects and operati-
ons aboue nature,
to Magi: & were
not able to distin-
guish between mi-
racles done by the
finger of God or his
ministers, and the
illusions practised
by the diuell and
his lims.
* Some interpret
this to be meant of
Christianity, which
was receiued with
the first in Cyprus
by the preaching of
the Gospell, and at
it is thought, by S.
Barnabas: for that
during the infancy
of the primitive
Church, many mi-
racles were
wrought by the A-
postles and Disci-
ples of our Saviour
Iesus Christ; the
heathen hold that
Religion of Chri-
stians to be a kind
of Magicke. Other
vnderstand that
place of the Ihesu
of Cyprus which
called Cynareans.

together with all the pack of such Physitians, prophets, & wizards. But what should I discourse any longer in this wise, of that Art which hath passed ouer the wide ocean also, & gone as far as any land is to be seene, even to the utmost bounds of the earth; and beyond which, there is nothing to be discovered but a vast prospect of Aire and Water. And verily in Brittain at this day it is highly honored, where the people are so wholly deuoted vnto it, with all reuerence and religious obseruation of ceremonies that a man would think, the Persians first learned all their Magick from *them. See how this Art and the practise thereof is spread ouer the face of the whole earth! and how *those nations were conformable enough to the rest of the world in giuing entertainment thereto, who in all other respects are far different & diuided from them, yea and in manner altogether vnknowne to them. In which regard, the benefit is inestimable that the world hath received by the great providence of our Romanes, who haue abolished these monstrous and abhominable Arts, which vnder the shew of religion, murthered men for sacrifices to please the gods; and vnder the colour of Physicke, prescribed the flesh to be eaten as most wholesome meat.

CHAP. II.

¶ The sundry kinds of Magicke. The execrable acts of Nero: and the detestation of Magicians.

Magicke may be practised after diuers sorts, according as *Osphanes* hath set downe in writing: for it worketh by the means of (1) Water, (2) Globes or Balls, (3) Aire, (4) Starres, (5) Fire-lights, (6) Basons, and (7) Axes: yea, and many other means there bee, that promise the foreknowledge of things to come: besides the raising vp and conjuring of ghosts departed, the conference also with Familiars and spirits infernall. And all these were found out in our daies, to be no better than vanities & false illusions, and that by the Emperor *Nero*: and yet was he neuer more addicted to play vpon the cythern, nor took greater pleasure to hear & sing tragicall songs, than to study art Magicke: and no maruell if he were giuen to such strange courses, hauing wealth & world at wil; and his fortunes besides attended vpon & accompanied with many deep corruptions of the mind. But amid those manifold vices whereunto he had betaken and sold himselfe, a principall desire he had, to haue the gods (forsooth) and familiar spirits at his command; thinking that if he could haue attained once to that, hee had then climbed vp to the highest point and pitch of magnanimity. Neuer was there man that studied harder, and followed any Art more earnestly, than he did Magicke. Riches he had enough vnder his hands, and power he wanted not to execute what he would, his wit was quicke and pregnant, to apprehend and learn any thing, ouer and besides other means that he practised to bring about this desseine of his, which were so intollerable, that the world could not indure them: and yet he gaue it ouer in the end without effect: an vndoubted & peremptory argument to conuince the vanity of this Art, when such an one as *Nero* rejected it. But would to God he had conferred with familiars & spirits, yea & taken counsel of all the diuels in hell, for to be resolu'd of those suspitions which were gotten into his head, rather than giuen commission as he did to the professed bawds and common harlots in stinking stewes and brothell houses, for to make inquisition from house to house after those whom he had in ieiouise. Certes, no bloudy and detestable sacrifices (how inhumane and barbarous soeuer) he could haue performed, but they had bene far more easie and tollerable, than those cruel imaginations which he conceived, and wherupon he murdered most piteously so many good citizens, & filled Rome with their restless ghosts. But to return again to Art Magicke, which *Nero* would so faine haue learned: what might be the reason that he could not reach vnto it? Surely these Magicians are not without their shifts & meanes of euasion to saue the credit of their art, if haply they misse and come short at any time of their purpose: for otherwhiles they beare vs in hand, that ghosts and spirits will not appeare, nor yeeld any seruice to those persons who are * freckled & full of pimples: and haply * *Nero* the Emperor was such an one. As for his lims otherwise, he had them all, & found they were: besides, the set daies and times fit for this practise, and prescribed by Magicians, he might chuse at his good will & pleasure. Moreover, an easie matter it was for him to meet with heep, cole black, & such as had not a speck of white or any other colour, for him (I say) who when he list could sacrifice men, and took greatest delight in those sacrifices: furthermore, he had about him *Tyridates*, the K. of Armenia, a great Magitian, to giue him instructions. This prince *Tyridates* being vanquished and

* As it appeareth by our old English Chronicles, which write of *K. Aribur*, the knights of the round table, and *Merlin* the prophet or magician. * No doubt hee meaneth England, Scotland, & Ireland, which seemed to be separt from the rest of the world, where, in old time Magicke bare a great sway, and witches still swarm too much. (1) Hydromantia. (2) Spharomantia. (3) Aeromantia. (4) Astrologia. (5) Pyromantia. (6) Lecanomantia. (7) Animomantia.

* Lentiginosis. * *Suetonius* in *Nero*: *vone: corpora sunt maculosa & fada.* 3. His skin was full of little spots.

A dued by the Romane captains vnder *Nero*, and forced by their capitulations to present himselfe personally at Rome for to do homage vnto the Emperour; travelled thither all the way by land (which was a fore charge to the countries & prouinces through which he passed, bringing with him as he did the whole pompe and train for the triumph ouer Armenia and himselfe) & came vnto *Cesar*. And why would not this *Tyridates* passe the seas and saile ouer into Italy, the nearest and most expedit way? Forsooth, so precise he was, that he made a scruple, and thought it vnlawful (as all magicians do) either to spit into the sea, or otherwise to discharge into it the necessary excrements that passe from mans body, thereby to pollute and defile that Element. Many other magicians he brought with him in his traine. He instructed *Nero* in the principles of Magicke, yea and admitted him to their sacred feasts, and solemne suppers, and all to enter him into that profession: but it would not be: for albeit *Nero* enthronized and entailed *Tyridates* in his kingdom, and gaue him his royalties againe, all would not serue; for neuer could he receiue at his hands by way of remuneration and recompence, the skill of this Science. And therefore we may be fully assured and boldly conclude, That it is a detestable and abhominable Art, grounded on no certaine rules, full of lies and vanities, howsoeuer it carry some shew or shadow rather of veritie: and to say a truth, that certitude which it hath in effecting any thing, proceedeth rather from the diuellish cast of poisoning practised therewith, than from the Art it selfe of Magicke. But what needs any man to seek & hearken after the lies which the magicians in old time haue let flie and sent abroad? When I my selfe in my youth haue seen and heard *Apion* (that great and famous Grammarian) tell strange tales of the herbe *Cynocephalia*, which the Egyptians call *Cyrites*, and namely that it hath a diuine and heavenly vertue, and was a singular preferuative against all poysons, charmes, and enchantments; but whosoever plucked or drew it out of the ground (saith he) could not escape present death. The same *Apion* reported in my hearing, that he hath conjured and raised vp spirits, to enquire and learne of *Homer*, what countryman borne he was; and from what parents descended? many hee durst not report what answer was made againe, either vnto him or them.

CHAP. III.

¶ Of Mould-warps: and of many other medicines taken from sundry beasts, which are in their kinde either tame or wilde: and the same medicines digested according to diseases as they orderly follow.

One speciall argument this may be, to prooue the follie and vanitie of magicians, because of all other liuing creatures, they do admire & set greatest store by these wants or moulds, which Nature seemeth to haue condemned to perpetuall blindness and prison, shutting them vp as it were euermore in a dark dungeon, or keeping them rather vnder the earth, like as they were buried and enterr'd. And yet for all this, these Wise men giue more beleefe to those signes which they spie in their bowels and entrails when they be opened, than to the inwards of any beast whatsoever. This opinion moreouer they haue of a mould-warpe, that there is not a creature more capable of religion, and fitter to be employed in sacrifice and diuine seruice, than it may they beth not to auouch & warrant, That whosoever swallowes down all whole the heart of a moule fresh killed, whiles it is yet warme and panting with life in it, shall haue the gift of diuination, and foretell the euent and issue of any businesse in hand. Moreover, they affirm, that the tooth of a moule-warpe taken out of her head whiles shee is aliue, is singular to allay the tooth-ach, if it be hanged about the necke, or tied to any part of the body. They talke of many other wonders wrought by this poore creature, which I purpose to deliuer as occasion shall be offered, in place conuenient. And yet when they haue all said that they can of them, that which carrieth the greatest likelihood and probability, is this, That they should be good against the biting of these musets or hardishrews, for as you haue heard me say before, the very earth that is pressed down with the wheels in a cart-track, is proper for that purpose. But to leaue these moulds and to follow on still with this maladie of tooth-ach, the said magicians tel vs a medicine made of the ashes of a dogs head (dying of madnesse) that it should be passing good therefore, if it be mixed with the oile *Cyprinum*, & so dropped into the ear on the pained side: howbeit this care would be had, That the said dogs head haue no flesh at all sticking to the scalp or scull, when it is burned and calcined. They say moreouer, that the greatest cie-tooth of a dog growing on the

* *Ad Scitandum Homerum.*

left side of his head serues well for this grievance, if the tooth that is in pain be scarrified round about therewith. Also a bone growing out of the ridge or chine of a Dragon, will do as much; or that of the serpent called Enhydri. Now are these serpents white of colour, and held al to be the male. The greatest tooth of this Enhydri is thought to be singular for to scarrifie or to let the painfull tooth bloud therewith: but in case the teeth in the vpper chaw do ake, they take two of the vpper teeth of this serpent, & apply them fast therto, but contrariwise if the nether jaw. They that hunt after crocodils, vse to greafe themselves with the fat of this serpent. Moreover, it is good by their saying, to scarrifie the gums about the teeth with the bones taken out of a lizards forehead at the ful of the moon, with this regard, that the same in any wife touch not the ground. Some of them there bewho make a collution with dogs teeth sodden in wine till the one halfe be consumed, and therewith wash the teeth that ake; but the ashes of the said teeth incorporated in hony, are singular good for little children which haue much a do in breeding their teeth. The same medicine is holden to be an excellent dentifrice for to make teeth look white. If the teeth that ake be hollow, they vse to put into the concavity thereof, the said ashes incorporated in mice dung, or els the liuer of a lizard dried. Also if one that is troubled with tooth-ach, set his teeth in a snakes heart & bite it, or hang the same about the neck or otherwise, it is thought to be an effectual remedy for the said disease. Others there be of the magicians, who prescribe to chew and eat the flesh of a mouse twice in a month, and they assure vs by this means that we shall preuent and auoid the tooth-ach. Moreover, it is said that a decoction of earthworms boiled in oile & poured into the eare on that side where the tooth-ach is, doth giue great easement of pain. The ashes of the same mads burnt, put into the hole of a tooth that is rotten and worm-eaten, causeth it to fall out of the head with ease; and if the teeth that do ake be found, rub them with the said ashes and the pain will cease. Now the said worms ought to be burnt or calcined vpon a tele or potsherd. Also a decoction of this kind of wormes sodden in squillitick vinegre with the root of a mulberie tree, is a soueraigne medicine to wash the teeth withall when they be in pain. Furthermore, the little grub or worwe which is found in the herb Tazill, called **Veneris Labi*, hath a wonderful operation to cure the tooth-ach, if it be put into the hole of a faulty tooth: and no maruaile, for the caterpillars that breed in coleworts, will presently fall off if they be but touched with this worm. The punaises also or wall-lice that come from inallows, infused into the ears with oile of roses, assuage the tooth-ach. The small sandy grit that is found in the horns of shel-snails, conueied into an hollow tooth, presently allaiies the pain. The bare shels of the said snails, hollow as they be and void, calcined and reduced into ashes, and incorporated with myrrhe, are passing good for the gubs: but the ashes of a serpent burnt and calcined in an earthen pot, with salt among, helpeth the tooth-ach, if it be infused into the eare on the contrary side, with oile of roses. The skin of a snake which she hath cast in the Spring, made hot in oile & the rosin of torchwood, is singular in this case to be distilled into eather of the ears, it makes no matter which: some put therto frankincense and oile of rosat. The said slough or skin of a snake thus prepared and put into an hollow tooth, causeth the same to fall out of their head without any pain or grieue at all. As touching white snakes, how they cast their slough at the rising or apparition of the Dog-star, I hold to be a meere fable; for it was neuer seen or knowne, that they did so in Italy: much lesse therefore it is credible, that in hot countries they should be so late ere they cast their slough. Moreover, it is commonly beleueed, that the said slough kept so late ere they cast their slough. Moreover, it is commonly beleueed, that the said slough kept so long and incorporated with wax, draweth out a tooth most speedily, if it be applied thereto. Also, snakes teeth, either worn about the necke, or laid to teeth in pain, assuage their grieue. Some are of opinion, that a very spider all whole as it is, caught with the left hand, bruised and incorporated in oile of roses, and so dropped into the eare of the same side that the teeth ake, is very good to mitigat the pain. It is said also, that if a man take all the little bones of an hen (and saue those onely of the legs whole that be hollow) and keepe them in the hole or crany of a wall, and with one of the said bones either hit the tooth that ake, or scarrifie the gumble about it, and then presently cast it away when he hath done with it, the paine will immediately be gon. The like effect hath the dung of a rauen, applied hard vnto the place within a Locke of wooll: likewise of sparowes, tempered in oile hot and poured into the eare that is next vnto the pained tooth; but surely it will cause an intollerable itch: and therefore many thinke it a more safe and easie remedy, to burn young sparowes in a fire made of Vine-twigs, and the ashes that commeth from them to temper with vinegre, and therewith to rub the said teeth.

¶ How to procure a sweet breath. Meanes to take away the spots that blemish the face and to amend the infirmities incident to the throat.

It is said, that for to rectifie the offence of a strong and stinking breath, and to make it sweet and pleasant, it is good to rub the teeth with the ashes, of mice burnt, and incorporated with honey. Some there be, who mingle therewith the root of fennell. If the teeth be pricked or scraped with a vulturs quill, it will cause the breath to be lowre; but so doe the same with the quill or prick of a porkepine, is a singular thing to strengthen the teeth and keepe them fast in the head. As touching the sores in the tongue, or the scabs and little ycers breaking out about the lips, a decoction of swallows sodden in honied wine, healeth them; but if the lips be chapped, there is not a better thing than to annoint them with the grease of a goose or hen. For the same purpose serueth the tried or rindled grease of sweatie wooll, being incorporated with the powder of gall-nuts: also the white cobwebs that spiders doe weave, or else the little fine ones which they work vnder the planks and floors of high lofts, or rouses of houses. * If one chance to burne his mouth inwardly with some scalding broth or otherwise, the milke that a bitch giueth is a present remedie therfore.

As touching the spots that infect the skin of the face, the foresaid tried grease of wooll vnwashed, called *oxyfym*, incorporated with the hony of the Island Corfica (which of al other is counted most vnpleasant and vntoothsome) is proper to subtiliat and scoure them: the same also laid to the face vpon a lock of wooll, causeth the scurfe or scales whereby the skin seemeth to pill, for to fall away: howbeit some thinke it better to put hony thereto. But say there appeare vpon the face any foule and thick morpew that hath pierced deep into the skin, it is good to rub the same with dogs gall; but first the place ought to be pricked thick with a needle that the medicine may enter in. If the skin look wan, or black and blew, take the light of rams or other sheep, cut them into thin slices like to skins, and lay them hot to the place, or els apply therto pigeons dung. The fat of a goose or hen, is a singular thing to preserve & keepe soft, smooth, and dilicat, the skin of the face. As for the ringworms or ill fauoured tetter called Lichenes, there is a proper liniment made either of the dung of mice incorporated with vinegre, or the ashes of an vrchin tempered with oile. But in this cure, the face ought to be bathed and fomented before with vinegre and salnitre. For to take away any spots or pimples arising in the face, there is not a better thing to apply to them than the ashes of the little broad snails which are commonly found in euery place, incorporated with honey. And in truth, the ashes of any snails whatsoeuer, are astringent and hot, by reason of a certain absterfue qualitie that they haue; which is the reason that they enter into potentiall cauteries, or caustick & corrosiue medicines: and therefore they serue in liniments for to kill scabs, scurfs, mange, and leprosie; yea and to scoure away the foule spots called Lentils. Moreover, I read in authors of certain pissmires greater than the rest, called *Herculaneæ*, the which being stamped with a little salt put to them, are good for all the infections of the skin mentioned in the former receit. There is a kind of insect or flie called *Buprestis*, passing like to a long legged beetle, but seldom or neuer be any such found in Italy: kine and oxen catch much harme by this flie, for many times as they graze, they lick it vp with the grasse and swallow it down: and hereupon it tooke that name *Buprestis*: for no sooner commeth it to the gall, but it inflameth and setteth the beast into a great heat, wherupon it swelleth vntill it burst againe. So corrosiue it is (as I haue said before) that being incorporated with goats sewer, and so reduced into a liniment, it takes away the tetter called Lichenes that be in the face. The bloud of a vultur [a geire] tempered with the root of white Chamæleon (I mean the herb so called) and the rosin of cedar, heales the leprosie, so that this liniment be couered with colewort leaues. Of the same effect are the feet of locusts braied in a mortar and incorporated with goats tallow. The greace of a cock, capon, or hen, wel stamped & wrought with an onion, is singular to scoure the spots and specks of the visage: also the hony wherein a number of bees were stifed and killed is proper for the said purpose: But aboue all, the greace of a swan is commended both for to cleanse the skin of the face from all flecks and freckles, and also take away wrinkles. As for the markes remaining after the cauterie or hot yron, there is no better means to take them out, than a plastre of pigeons dung and vinegre. If the rheume cause the mur, the pose, or heatineffe in head, I find a pretie medicine to rid it away, by kissing only the little hairie muzzle of a mouse.

As touching the uvula and paine of the throat, they may be both of them eased and cured G with lambs ordure, which passeth from them before they haue bitten grasse dried in the shade. The juice or slimie humor that shels, snails yeeld when they be pricked through with a pin or needle, is singular good in a liniment for to be applied vnto the uvula; provided alwaies, that those snails doe hang after, in the smoke: The ashes that come of swallows calcined & burnt, is likewise very soueraign, being laid to the grieved place with hony; and in that sort prepared, it serueth also for the inflammation and swelling of the tonsils or amygdals of the throat. For the said tonsils and other accidents of the throat, a gargarisme of ewes milke is right soueraigne. There is a certain creeper called, a * Cheeslip, which if it be bruised or stamped, is good for the said infirmities: so is pigeons dung gargarised with wine cuit, or applied outwardly with sal-nitre & dried figs. If the throat be troubled with hoarsenesse, occasioned by rheume or catarrhe, the foresaid shels-snails doe greatly mitigate the same infirmities, being first sodden in milke (all saue the earthy or muddy substance which they must be cleansed from) and then giuen in wine cuit to the patient for to drink. Some hold opinion, that the snails found in the Isle Astypalæa, are the best of all other for this purpose, but principally the abstersiue substance that is found in them. The cricquet called Gryllus, doth mitigate catarrhs & all asperities offending the throat, if the same be rubbed therewith: also if a man doe but touch the amygdals or almonds of the throat, with the hand wherewith he hath bruised or crushed the said cricquet, it will appease the inflammations thereof. To come now vnto the Squinancie: a goose gall incorporat with the juice of the wild cucumber, and hony together, is a most speedie and present remedy for it also the brains of an owle, and the ashes of a swallow drunke in water wel and hot, is good for the said disease: But for this medicine we are beholden to the Poët Ouid. Note that when I speak of any medicine (for what maladie fouer) made of swallows, the young wild ones are alwaies the better and more effectuell in operation: and those you may know easily by the fashion of their nests where they do build. But if you would haue the best indeed, the young ones of that kind which are called Ripariæ, passe al the rest for medicinable vses, for so they are commonly named which build in the holes of banke sides. Howbeit, some there be who assure vs, that we shal not need to feare that disease for a yeare together, if we do but eat any young swallow, it skills not of what kind fouer it be. Now the order of calcining them from their ashes, is to strangle them first, & so to burn them in their blood within an earthen vessell: and the ashes thus made, is vsually giuen either wrought in past for bread, or else to be drunke: and some there be who mingle withall, the like quantiry of the ashes which come of weazils. And this kind of medicine thus prepared, they giue in drink every day against the kings euill, and falling sicknesse. Moreover, swallows kept and condire in salt, are passing good for the Squinancie, taken in drinke to the weight of a dram at a time: and it is said, that their very nest giuen in drinke, cureth the said maladie. It is a common opinion, that a liniment made with the creepers called Sowes or Multipedes, is most effectuell to cure the said Squinancie. And some there be who aduise to take one and twenty of these worms stamped, and to giue them in one hemine of mead or honied water for the said disease; but they must be conceiued downe the throat by a pipe or tunnell, for if this medicine touch the teeth once it will do no good. It is said moreover, that if one drinke the decoction of mice sodden with veruaine, it is a soueraign remedy for that disease: as also that a leather thong made of a dogs skin put thrice about the necke, will doe the deed. And some there be, who in this case vse pigeons dung mixed with oile and wine.

As touching the cricks of the nerues or sinewes that serue the nape of the necke; as also for the cramps that draw the head backward, they say, that a twig or branch of a vine taken out of a puttocks nest, and carried about one hanging to the necke or arme, is a speciall remedie for the abouenamed accidents.

CHAP. V.

¶ Medicines for the Kings euill that is broken and doth run: for the paines lying in the shoulders: as also for the grieve of the bowels about the midriffe and precordiall parts.

The blood of a weazill is good for the wens called the king euill, when they be extulcerat & do run: so is the weazill it selfe sodden in wine and applied; provided alwaies, that they run not

A not by occasion of any launcing or incision made by the Chirurgions hand. And it is commonly said, that to eat the flesh of a Weazill, is effectuell for the cure. So are the ashes of a Weazill calcined vpon a fire made of Vine-twigs, if they be incorporat with Hogs greafe. Item, Take a green Lizard and binde it to the fore; but after thirty daies you must do so with another, & this will heale them. Some make no more ado but in a little box of siluer keep the heart of a Weazill & wear it about them. If women or maids be troubled with the kings euill, it were good to make choise of old shels-snails, and to stamp them shels and all into a plaister or liniment: but especially such as be found sticking to the roots of shrubs and bushes. The ashes of the serpent Aspis calcined, are likewise very good for this disease, if they be incorporat with buls tallow, & so applied. Some vse snakes greafe and oile together: also a liniment made with the ashes of snakes burnt, tempered either with oile or wax. Moreover, it is thought that the middle part of a snake, after the head and taile both be cut away, is very wholesome meat for those who haue the kings euill: or to drink their ashes, being in the same manner prepared and burnt in a new earthen pot neuer occupied; may if the said snakes chanced to be killed between two cart-tracks, where the wheelles went, the medicine will look much more effectually. Some giue counsell to apply vnto the affected place Crickets digged out of the earth, with the mould and al that commeth vp: Also to apply Pigeons dung only without any thing els, or at the most to temper it with Barley meale or Oatmeale in vinegre. Likewise to make a liniment of a Moldwarps ashes incorporat with hony. Some there be who take the liuer of a Moule, crush and bruise it between their hands, working it into a liniment, and lay the same to the fore, and there let it drie on the place and wash it not off in three daies. And they affirme, That the right foot of a Moule, is a singular remedie for this disease. Others catch some of them, cut off their heads, stampe them with the mould that they haue wrought and cast vp aboue ground, & reduce them into certain trochisks which they keep in a box or pot of tinne, and vse them by way of application to all tumors and impostumes which the Greeks call Apostemata, and especially those that rise in the necke: but then they forbid the patient to eat porke or any swines flesh during the cure. Moreover, there is a kind of earth-beetles called tauri, Bulls: which name they took of the little hornes that they carry; for otherwise (in colour) they resemble tickes; some tearme them, Pedunculos terræ, earth lice: These also worke vnder the ground like wants, and cast vp mould, which serueth in a liniment for the Kings euill, & such like swelling, as also for the gout in the feet, but it must not be washed off in three daies space. Howbeit, this is to be noted, that this medicine must be renewed every year, for the said mould wil continue no longer in vertue than one year. In sum, there be attributed to these beetles, all those medicinable properties which I haue assigned vnto the crickets called Grylli. Moreover, some there be who vse in manner and cases afore said, the *mould which ants do cast vp. Others for the Kings euill take iust as many mads or earthworms in number as there be wens gathered and knotted together, and bind the same fast vnto them, letting them to drie vpon the place: and they are persuaded that the said wens will drie away and consume together with them. There be again who get a Viper about the rising of the Dog star, cut off the head and taile, as I said before of snakes, and the middle part betweene they burne: the ashes that come thereof, they giue afterwards to be drunke for three weeks together, every day as much as may be comprehended and taken vp at three fingers ends: and thus they cure and heale the kings euill. Moreover, there be some that hang a Viper by a linnen thread fast tied somewhat vnder the head, so long till she be strangled and dead, and with that thread bind the foresaid wens or Kings euill, promising vnto their patients assured remedie by this means. They vse also the Sowes called Multipedæ, and incorporat the same with a fourth part in proportion to them, of true Turpentine: and they be of opinion, That this ointment or salue is sufficient to cure any impostumes whatsoeuer.

As touching the paines that lie in the shoulders, there is a proper medicine made in forme a liniment, with the ashes of a Weazill shoudered with wax, which easeth the same.

To keepe young boies from hauing any haire growing on their face, that they may seem alwaies young, it is good to annoint their cheekes and chin with Ants egges. Also the marchants or hucksters that buy yong slaues to sell them againe for gaine, vse to hinder the growth of hair as well of the visage, as in the armeholes and vpon the share, that they may be taken for young youths still, by annointing those parts with the blood that commeth from lambs when they be libbed, which ointment doth good also to the armpits, for to take away the ranke and rammish smell

* Multipeda.

* For the martinetts or swallows called Apodes, build not, but lay and breed in chinks and cranies of old walls.

* Of which being raised more & more, come Maure-hills, corruptly called Moule-hills: for Ants were in old English called Maures: and Moules neuer cast vp such.

smell thereof: but first the haire there growing ought to be pulled vpon by the roots.

* The bowels,
as heart, liuer,
lights, &c.

* Prescrib'd
wines, not pre-
fused, vino.

* Because they
were brought
from the Isle
Melita, lying
within the
Sclavonian sea

Now that I am come to speake of the precordiall region of the body, know this, That by this one word *Præcordia*, I meane the inwards or entrailes in man or woman, called in Latine * *Extra*, whensoever then there shall be pain felt in these parts or any of them, apply thereto a yong sucking whelp, and keepe it hard huggled to the place, doubtlesse the said griefe will passe away from the part to the puppie it selfe, as men say: and this hath been found true by experience in one of those whelpes * ripped and opened aliue, and the said bowels taken forth: for looke what part in man or woman was grieved, the very samewas seene infected thereupon, in the puppie. And such whelpes thus vsed for the curing and taking vpon them our maladies, were wont to be enterred with great reuerence and ceremoniall deuotion. As touching the pretty little dogs that our daintie dames make so much of, * called *Melitæi* in Latine, if they be euer and anon kept close vnto the stomacke, they ease the paine therof. And in very truth a man shall perceiue such little ones to be sicke, yea, and many times to die thereupon: whereby it is euident, that our maladies passe from vs to them.

CHAP. VI.

Of the diseases incident to the lights and liuer. Of those that vse to cast and reach vp blood at the mouth.

Mice are very good for the infirmities of the lungs, especially those of Barbarie, if they be first slaied, then sodden in oile and salt, and so giuen to the patient for to eat: Thus prepared and vsed, they cure them that either spit purulent and filthy matter, or else reach vp there blood. But a dish of meat made of snails with shels, is most excellent for the stomacke. But for the better ordering and dressing of them: first they ought to siuer ouer the fire and take a few waulmes till they be parboiled, without touching or meddling one jot with their body: afterwards they must be broiled vpon the coales, without putting any thing in the world vnto them, and then to be serued vp in wine and fish pickle or brine called *Garum*, and so eaten. But the best for this purpose are those of Barbarie. It is not long agoe, that this experiment was found: but since it was once known, many haue done themselves much good thereby. But (that which I had well neare forgotten) many obserue to take them in some od number. Howbeit, as hole some as they are supposed to be otherwise, this discomfortie is found by them, That they cause those to haue a strong and stinking breath that vse to eat them. Being stamped without their shels, and so drunk in water, they helpe them that reach blood vward. But that you may know that there be degrees of them in goodnes: The best snails simply are they of Barbary, and namely, those about the quarter neere *Soli*: Next to them are much esteemed such as are gathered in the Islands *Astypelæa*, and *Sicilia*, for they are of a meane bignesse; for such as be grown very great, haue their flesh hard, and be void of humidity. Then are ranged in a third place, those that come from the *Baleare* Islands, called *Cavaticæ*, because they breed in caues and holes. There be good also brought from the Islands *Capræ*. Holesom these shel-snails may be well ynough: but toothsome surely they are not, whether they be old kept, or new taken. Those that be found in riuers, & which haue white shels, cary a rank and strong sauour with them: so do the wild fort that are not kept vp and fed in stewes & pits, and be hurtfull to the stomack, but good to loosen the bellie: euen so are all the sort of the little ones. But contrariwise, those that breed in the sea are better for the stomack than others: and most effectually to allay the pains therof. Moreover, it is said, that they do most good, of what kind soeuer, if they be swallowed downe aliue & all whole with vinegre. Moreover, there be of these snails called * *Aceratæ*, of a broad making, and growing in many and fundry formes; of whose properties, and how they are to be vsed, I will write elsewhere in place conuenient. The inner skin of a Hen or Capons gesser, preserved till it be drie, and reduced into powder, and so put into a cup of drinke like spice; the same also eaten fresh, & newly roasted or broiled, is singular for the catarrhes that fall into the breast, and for a moist cough. Shel-snails punned raw & giuen in a supping with three cyaths of warm water, serue wel to appease & stay the cough. Take a piece of a dogs skin, and tie the same about any one of your fingers, which you will, it staies all rheumes and distillations. The broth made of Partridges, is soueraigne to comfort and refresh the stomack. As touching the griefe or paine of the liuer, it is said, That the flesh of a wild Weazill, or her liuer eaten, is a singular meat ther-

* Haply so named, because they haue little or no hornes, quasi gibbosus, boves.

A fore: so be Ferrets roasted in manner of little pigs. The worms with many feet called sowes or chesclips, are very proper for them that draw their wind short; but there must be one and twentie of them, neither more nor lesse, dissolved in the best Articke hony, and so giuen in drinke and swallowed down by a pipe or tunill: the reason why they must be thus conueied through such a cane or tunill is this, because looke what cup or boule they so touch, they staine the same black. Some take of them to the quantitie of one sextar, and torrie them vpon a pan or platter, vntill they looke white and be calcined, and then incorporat them in hony: [there be Latine writers who call this worne Centipeda, as if it had an hundred feet] and then giue direction, that they should be taken in hot water. Furthermore, it is said, That if the patient do either eat or drinke for the space of nine daies together one snail hot, stamped shell and all in three cyaths of wine cutt he shall find helpe, if he were giuen either to faint and swoone, or to be lunatick and to go beside himselfe, or else be subiect to the dizziness of the head. Others giue order to take them after another maner, namely, one the first day, the morrow twain, the third day three, the fourth two, and the fift one again: and in this wise they cure those who are shortwinded, or haue an impostume broken within their bodie. There is a kinde of Insect resembling a Locust, but that it hath nowings, which in Greek is called * *Tryxalis*; a Latine name it hath not found yet, as some do thinke: and writers there be not a few, who are of opinion, That it is the same that our Gryllus or crickets. Call it what you will: let there be twenty of them torried and drunk in honied wine, it is reported for to be a singular medicine for those that cannot take their breath but sitting vpright, and for such as spit blood. There is one writer who ordaineth to take snails vn-washed, and to poure vpon them either the Mere-gout of the grape that runneth out first without pressing, or else sea-water, and so to boile them therein, and afterwards to eat them for a cough. And the same Authour giueth counsell, to pun them shels and all, and to take them with the foresaid Mere-gout to the same effect.

Touching inward impostumes broken, the hony wherein a number of Bees haue bin drowned to death, hath a peculiar vertue to heale them. The lungs of a Vulture burned to powder in a fire made of Vine-cuttings, giuen in wine morning & euening, if the patient be free from the ague; so there be put thereto one moitie of Pomegranat floures, and the floures of Quinces and Lillies as much of each, is a very soueraigne remedie for those that cast vp blood out of their bodie: but if he be in a feauer, the same medicine would be taken in the decoction of Quinces.

D As for the paine of the spleene, if we may beleene the receipts and prescriptions of the Magicians, the patient ought to haue the milt or spleen of a sheep spread and laid ouer the place: but the patient that hath the application thereof, must say these words withall, *This I do to cure the spleene*: Which done and said, the same milt of the sheep must be laid vp close and hidden within the wall or behind the feeling of the bed chamber where the sick body lieth, and sealed vp with a signet, for feare it should be taken away: with this charge, that he or she that hath the bestowing of it, repeat the foresaid charme nine times thrice ouer. If a dogs bellie be ripped aliue, and the spleen taken forth, who soeuer eateth thereof, shall find it very good to ease them of the said maladie. But some content themselves with laying it fresh and warme to the region of the spleen. Others giue the spleen of a young whelp but two daies old, in squillitick vinegre, to the patient, but they make not the patient acquainted with the medicine what it is; or else they minister the spleen of an Hedgehog in the same manner. Likewise they giue the ashes of shell-snails with Line seed and Nettle seed, putting thereto some hony: and this cure they continue vntill the patient be thoroughly whole. It is said moreover, That a green Lizard taken aliue, and hanged so in a pot iust before the dore of the patients bedchamber: with this charge, that euer as he goes in and out he touch the same with his hand, will worke the same effect. The ashes of a scritch-owls head reduced into an vnquent with oile, is good for this purpose, so is the honey wherein Bees were stifled: and lastly a spider, but especially that which they call *Lycos*.

The heart of the bird called a * *Houpe*, is highly commended for the paine of the sides. Also the ashes of shell-snails boiled in Prifane or husked Barley water: and some in this case apply the same otherwhiles in a liniment onely without any thing else. The ashes of a dogs head (I meane the bare skalle or skull onely) dying enraged and mad, is good to spice a cup of drinke withall for this disease.

If the loines be pained, it is said, That the starre-Lizards called *Stellions*, comming from beyond sea sodden in wine together with the seed of black Poppie to the weight of halfe a denier

* or *Troxallus*, according to *Alianus*.

* *Prope*.

is very good, so the decoction be drunk: howbeit, this care must be had, that the head be cut off G first, and the garbage taken forth. The green Lizards are good meat in this case, if they be dressed accordingly, and their feet and head cut away: so are shell-snails, braied shels and all together, and sodden in wine with fifteen grains of pepper. Some vse the feet and legs of an Aegle in this disease, pulling them away backward from the knees: and the right foot they apply fast to the paine of the right side: but the other if the contrary side be grieved. The many-foot Sowes or Cheeslips, which I called before Oniscos, help the same pains, if they be taken to the weight of halfe a denarius in two cyaths of wine.

To conclude with the Sciatica, the magicians giue order to put an earth-worm in a treene or wooden dish, which hauing bin cleft, was fitched vp again with iron wier, or bound with a plate or hoope of yron: then to ladē vp some water therewith, and in it to wash & rince the said worme H very well, and then to enterre or burie the same again in the very place from whence it was digged forth: which done, to giue the said water anon to the patient for to drinke out the said wooden dish: and this they hold to be a wonderfull medicine.

CHAP. VII.

¶ Remedies for the dysenterie or bloudie flux. And generally for all diseases of the belly.

THE decoction of a leg of mutton sodden in water with Line seed, is singular good for to be supped off to stay a bloudie flux. So is old Cheefe made of Ews milke: and sheeps suet sodden together in some austere wine. The same is singular for the Sciatica passio, and an old cough. The starre-Lizard Stellio, which breeds beyond sea, being flaid, garbaged, and dressed for meat, so that the head and feet be taken away, and so sodden and eaten, is commended also in this case. Moreover it is said, That two snails and one Hens egg, stamped the one as well as the other with their shels, and afterwards gently sodden in a new earthen pot with some salt & two cyaths of wine cuir, or else with the juice of Dates & 3 cyaths of water giuen to the patient to drink who is tormented with the dysenterie or bloudie flux, will bring great alleuiation of the said disease. It is thought also, That the ashes of the said shell-snails calcined, if they be taken in wine with a little rosin, are soueraigne therfore. As touching naked snails without any shels, they be found plentifully in Affricke. Passing good they be for the bloudie flux, if 5 of them be burnt and calcined together, with halfe a denier weight of Acacia, & 2 spoonfuls of their ashes taken in Myrtle wine or some other austere & astringent wine, and a like quantity of hot water. Some there be who in this sort vse all the snails of * Barbary. Others thinke it better to take five of the said snails of Affricke, or rather as many of the broad and flat sort, and to clysterize them for the dysenterie. But if the flux be exceeding vehement, then they put thereto of Acacia the quantitie of a beane. It is said moreover, That the spoile or slough of a serpent boiled with oile rosat in a vessell of tinne, is singular for the * Dysenterie and * Tinesme, to be injected by a clyster: Or if it be sodden in any other vessell, yet with an instrument or pipe of tin it is to be conueighed into the fundament, that the tiwill thereby may be annointed. The broth of a Cocke cureth these infirmities: but if it be of an old Cocke, it is the more effectuell. And yet if the said broth be any thing saltish, it stirreth the bellie & prouoketh to the seege. The inward skin of an Hens gisier broiled and giuen with salt and oile, doth mittigar and appease the * wrings caused by the flux of the stomacke. But then this regard must be had before, That neither the Hen haue any corne giuen her, nor the patient feed vpon any graine some time before. Pigeons dung being burnt, and the ashes taken in drinke, is of great effect and vertue in these cases. The flesh of a Quoist or Stock-doue sodden in vinegre, is good both for the bloudie flux, and also for the loosenesse, proceeding from the imbecilitie of the stomacke. The Thrush or Mauius roasted with Myrtle berries, is soueraigne for the dysenterie: so is the Merle or black-bird. In which respect, great account also is made of the honey boiled, wherein bees were killed. [Of all the paines that be, the * Uliacke passion is most sharpe and grievous to be endured. But it is said, That the blood of a Bat, torne and plucked in peeces aliue, is very good against it; yea, and if the bellie be annointed therewith, it easeth the torment thereof.] But to come againe vnto the flux of the bellie, shell-snails prepared and made in manner aforesaid for those that be short winded, are singular good for to stop the same, and to knit the bodie. So are their

* Or Affricke.

* Vicer of the guts or bloudie flux.

* A continuall desire to the stoole without doing ought.

* *Dolores colici*. Some read *Colicorum*. 1. of the Collicke.

* Which is the torture, or inflammation of the vpper small guts.

A ashes (if they were burnt and calcined aliue) taken in some austere or astringent wine. The liuer of a cocke roasted, together with the skin of the gisier, which ordinarily the cooke casteth away, dried and kept, and so taken with a little of the juice of Poppy mixed with it, is of great power to remedy these accidents: others take the same skin whiles it is new and fresh, which they broil and torrefie, for to be giuen in wine to drink. A Partridge broth, yea, and the gisier of the bird alone beaten to pouder and taken in some grosse and astringent wine, is singular to stay a flux of the belly. The wild Ring-doue or Quoist, boiled in vineger and water, is of the same effect. The milt of a sheep first torrefied, then puluerized and taken in wine, helpeth much this infirmity. A liniment likewise made of Pigeons dung and hony, is of great vertue, if the patients belly be annointed therewith.

B Touching those that haue feeble stomacks, and cannot concoct and digest their meat. It is said, That the maw or gisier of that kind of Geire or Vulture, which is called in Latine *Ossifragus*, dried, puluerized and drunk, is right soueraigne. Nay, if the patient doe but hold the same gisier in his hand whiles he is at his repast, it will help digestion. And in truth there bee diuers that for this cause weare these gisiers ordinarily about their necks: but I thinke it not wholsome to do so, long, for it maketh them leane as many as vse it, and spendeth their body.

To stay a flux of the belly, the blood of Mallards or Drakes is thought also to be singular good. The meat made of shell-snails, discusseth and scattereth ventosities. The Milt of a Mutton broiled to ashes and giuen in wine, is singular good to allay the wrings and torments of the belly. Of the same operation is the wild Quoist or Ringdove, sodden in vineger and water. The greater kind of Swallows or Martins called Apodes, are no lesse powerfull, if they bee sodden and taken in wine. The ashes of the bird Ibis plucked & burnt without his feathers, & so giuen to drink, work the same effect. But strange it is and wonderfull, if that be true which is reported as touching this malady, namely, that if a Ducke bee applied aliue vnto the belly which is tormented with such wrings, she shal draw away the disease into her own body, and die of the torment, but the patient shal be eased by that means. These painful gripes likewise are cured with sodden hony, wherein Bees sometimes were drowned to death.

As for the Collick, there is nothing so good to assuage the paine thereof, as to eat Larkes, which the Latines name *Galerita*. Howbeit, some giue aduise and think it better to burne and calcine them in their feathers within a new earthen vessel, & so to stamp them to ashes or pouder, and to drink therof foure daies together in water by three spoonfuls at a time. Others make no more ado, but take the heart of a Lark, and bind it to the inward part of the thigh: and there be againe who would haue the same to be swallowed downe whole newly taken out of the bird while it was warme. There is a family of the Asprenates, men of good quality and reputation, for that they had bin sometimes Consuls of Rome: in which house, of two brethren, the one was fully cured of the collick by eating these birds, and by wearing ordinarily the heart of one of them about his arme, inclosed within a bracelet of gold: the other being likewise troubled with the said disease, found remedy by a kind of sacrifice which he offered in a little chappell made with vnbacked bricke, piled vp archwise in manner of a furnace: and so soon as the sacrifice was finished, he stopt vp the same againe. That Vulture which is called *Ossifragus*, hath one gut of wonderful nature, for it is able to concoct and digest whatsoever the said soul deuoureth. And for certain this is known and generally receiued, that the nethermost end thereof cureth the collick, if the patient do but carry it about him. There are other secret and hidden diseases incident to the guts, whereof there be wonders told: and namely, that in these cases, if yong whelpes before they can see be applied for 3 daies together vnto the stomack especially, and the breast, so that they suck milke from out of the patients mouth the while: the said disease shall passe into the body of the poore whelps, whereof in the end they shall die. Let the same be ripped & opened, then it wil appear euidently what the cause was of the foresaid secret malady of the patient. But such whelps ought when they are dead to be enterred & buried. As for the Magicians, they auouch, That if the belly be annointed lightly with the blood of a Bat, the party thus dressed, shall not need to feare any paine of that part for one whole yeare after: or if it chance that one be pained in the belly, let him (say they) indure to drinke the water that runneth down from his feet when his legs be washed, and he shall find help anone.

CHAP.

CHAP. VIII.

¶ Medicines against the stone and grauell: the paines of the bladder. The swellings in the coles and the share. Also for the biles and botches called Pani.

For them that are troubled with the stone, it is good to annoint the region of the belly with Monse-dung. It is said, that the flesh of an Vrchin or Hedgehog is very good meat: & pleasant in tast, if so be he were killed outright in the head at one blow, before that he had time to shed his owne vrine vpon himselfe: and looke whosoever eat this flesh, shall neuer be subject to the disease of the strangury. The flesh of an Vrchin killed in this sort, helpeth the bladder, in case the vrine passe by dropmeale from it. But contrariwise, if the Vrchin chance to wet and drench himselfe with his owne vrine, as many as eat of the flesh shall fall into the infirmity of the strangury or pissing dropmeale. Moreover it is said, That earthworms drunke either in wine or cuit, is of great efficacy to breake or dissolue the stone: as also that snails, prepared in that sort as they are ordained to be dressed for shortnesse of wind, work the like effect. Take snails naked out of their shels, and stamp them; giue 3 of them to the Patient to drinke in a cyath of wine the first day, two the morrow after, and the third day one againe, you shall see how it will helpe the strangurie or pissing dropmeale. But let the empty shels be burnt, the ashes therof wil scoure away and expell the stone. Semblably, it is said, that the same effect followeth vpon drinking the liuer of a water-snake: the eating of the ashes of scorpions calcined, either in bread, or with the locusts. Likewise, to take the little stones or grit that be found in the craw of a cocke, or in the gisier or maw of a stock-doue: to beat the same to powder, and therewith to spice the drinke, is singular good for the infirmity aforesaid. To do the like with the skin of a Cocke or Hens gisier, dried: or if it be new and fresh, to roste and eat it. Also for the stone and other difficulties or impediments of the bladder, it is good to take the dung of Quoists or Stock-doues, with Beane meale. In like manner there is much help found by the ashes of Quoists feathers, such as be of a wilder kind than the rest, taken with Oxymell. Moreover, the ashes of the guts of this bird giuen to the quantity of three spoonfulls: as also the nest of swallows: and Cricquets infused and dissolved in hot water, are commended for this purpose. Some helpe themselves with the gisier of Ossifragis dried: others vse the decoction of Turtles dung boiled in honied wine; or els the broth of the Turtle it selfe. Furthermore, for the difficulty of vrine, it is wholesome to eat blacke birds or Merles, boiled with Myrtle berries: or Grasshoppers fried in a pain: & to drinke the sows or Cheeslips called Oniscoi, folke make it not strange to do themselves good. But if there be pain in the bladder, it is said, That the broth made of Lambs feet, is soueraine. If the body bee bound or costiuie, a Cocke-broth causeth it to be soluble: and the same doth withall lenifie the acrimony of humors that cause the foresaid grieve of the bladder. The dung of Swallows likewise procureth loosnesse of belly, in case it be tempered with hony to the forme of a suppositorie, and so put vp.

* Repellit

Touching the infirmities incident to the seat, the tried greafe of vnwashed wooll, (whereunto some adde Tutie and oile of Roses) the ashes also of a dogs head are soueraine medicines: the slough likewise which a serpent hath cast, applied with vineger, is good, in case there be chaps and fissures in that part. Likewise, the ashes of dogs dung, which looketh white, incorporat with oile of Roses: & this receipt (they say) was the inuention of *Esculapius*; and is besides most effectual to take away werts. The ashes of Mice dung, Swans greafe, & the tallow of Oxe or Cow, are helpfull for this infirmity. If the tuill or gut Longaon be relaxed and hang forth, it is good to annoint the same with the moisture issuing forth of shel-snails that is pricked through with a pin or needle, for it drieth it back againe to the right place. If the seat be galled, it is thought that the ashes of the wood-Mouse cured with hony, cureth the same: or els the ashes of an Vrchin, together with the brains of a Bat, Allum, and the greafe tried out of vnwashed wooll, wil skin it againe. In like manner, Pigeons dung with hony: for the swelling blind hæmorrhoids or piles called Condylomata, there is a proper remedy; namely, to rub the place with a spiders body, after the head and legs be cast away. Against the acrimony and sharpnesse of humors, that they should not fret and burne those parts, there is a faire liniment made with Goose greafe, incorporat with Barbary wax, white lead, and oile rosat. So is the fat of a Swan. These medicines also

A also are said to heale the hæmorrhoids that run.

For the pain of the Sciatica, it is thought that raw shell-snails bruised are good, if they bee taken in Amminean wine and pepper: also a greene lizard eaten as meat, without the feet, garbage, and head: so is the starre-lizard Stellio, but thereto ought to be put the weight of three oboli of black poppy seed.

For ruptures, inward spasmes and convulsions, it auaileth much to take sheeps gal with breft milk. In case the priuities haue an itch & a fretting humor vpon them, or if some offensive werts arise in those parts, the dripping or graue that commeth from a rams lights roasted, doth much good, if the place be therewith annointed. As touching other accidents which happen to those parts, the wooll of a ram calcined and reduced into ashes, euen with all the filthinesse that is therein, is thought to be very good, so that the ashes be applied to the affected place with water. The sewer of the kell of a mutton, but especially that which groweth to the kidnies, incorporat with the powder of a pumish stone and salt, is much commended in this case: also greasie and vnwashed wooll soked in cold water, is good to be applied to the place: the flesh moreover of a mutton calcined, so as the ashes be incorporat with water. Item, the ashes of a mules house: and the powder of caples teeth braied & puluerized, if the grieved place be strewed therewith.

To come lower to the infirmities of the coles: the powder of the bones of a dogs head without any flesh vpon it, puluerized, is singular therefore. If it fall out that one of the genitoirs be relaxed & hang down lower than his fellow, it is good to annoint the same with the waterish slime and some that commeth from shel-snails, for they say it is an excellent remedy: if there be any soule and malignant vlcers in those parts running with filthy matter, the ashes of a dogges head fresh killed are singular to heal the same: so are the little broad and flat shel-snails bruised and incorporat with vineger, if either the same or the ashes be applied thereto, also the honey wherein bees haue been killed mixt with rosin: the naked snails likewise which bred (as I said) in Barbarie, in case they be stamped & incorporat with the powder of Frankincense & the white of an egg, with this charge, that the said cataplasme be not taken off in 30 daies, by which time it will be ready to fall away of it selfe. Some in stead of frankincense, put the bulbous roots of small onions or scallions. For those who be troubled with the * waterish rupture, it is thought that the star-lizards Stilliones be wonderfull good, in case their head, feet, and gurs, bee taken forth, and the rest of the body roasted, but the patient had need to eat of this meat often, and so it helpeth those who cannot hold their water. The like opinion there is of dogs greafe incorporat with * Alumne de plumie, if the patient take thereof to the quantity of a bean: as also the snails * of Barbary burnt, flesh, shell and all, so as the patient drinke their ashes. Furthermore, it is said, that the tongues of three geese roasted and eaten, is a speciall remedy for this infirmity: and *Anaxilans* is he that deuised this receipt. * *Hydrocelicis* * *Alumine* * *scibis*

Touching the biles called Pani, sheeps tallow incorporat with salt torrifacted, is singular good to breake them: but mice dung, with the fine powder of frankincense & orpiment or red Arsenicke, is as proper to resolute them: likewise the ashes of a lizard, and the lizard it selfe split alie and applied hot thereto. In like maner cheeslips or sows stamped and incorporat with the right terpine, to the quantity of a third part, & so brought into a cataplasme. Some there be who to shell-snails punned, adde the common bole-armoniack. Also the ashes of the void shels only alone without the snails mixt with wax, are of a resolutiue and discutient facultie. In like manner, a liniment made either of pigeons dung only, or els incorporat with barley meale or oatmeale. The flies called Cantharides mixed with quicklime, are a good potentiall cauterie, and open such biles as well as the Chirurgians launcet. The botches or swellings in the share, a liniment made with the small shel-snails and hony, doth assuage and mitigate. Finally, to keepe down the veins from swelling which be called Varices, it is good to annoint the legs of children with the blond of a lizard, but this must be don, while both the children and the party who hath be doing thereof be fasting.

CHAP. IX.

¶ Receipts for the gouts of feet and hands: and generally for the pains or diseases of ioints whatsoever.

The tried greafe of vnwashed wooll incorporat with womans milk and white lead, is a very proper liniment to mitigate the pain of the gout: so is the liquid dung of sheep when they

L 1

run

run out behind. Their lights likewise, or a rams gal incorporat with their suet. Some split mice, and lay them hot to the place: also the blood of a weazil reduced into a liniment with Plaintain: and the ashes of a weazill burnt alive, tempered with vinegar and rose water, and brought into a thin liniment, so that the place affected may be dressed with a feather. Others temper wax and the oile of roses together. And there be again who vse dogs gal for this purpose, but in any wise the hand must not touch it, but the place ought to be annointed with a feather: likewise hens dung, and the ashes of earthworms mixt with hony, with this charge, that this cataplasme be not vndone or remoued before the third day. Howbeit it is thought better by some, to apply the same ashes with water: but by others to vse vinegar in measure and with moderation, together with 3 cyaths of hony, hauing before hand annointed with oile of rose for the gouty feet. It is said moreover that to drink broad snails, is a singular medicine to take away the gout of the feet, or the pain H of any other ioint: the manner wherof is to stamp 2 at a time, and drink them in wine: some apply the same in a liniment with the juice of the herb Parietary. Others content themselves to bruise them and so to incorporat them into a cataplasme with vinegar. Many are of opinion, that the gout may be cured, if the patient vse oftentimes to take the salt, which together with a Viper was calcined in a new earthen pot: as also that it is very good to annoint the feet with Vipers greafe. And they affirme constantly of a Kite that hath bin kept long dried, if the patient reduce it into pouder, and drink thereof in water as much as three fingers will well take vp, it cureth the gout thoroughly. But if the feet be full of blood and swollen withall, they vse Nettles thereto. Some there be that take the yong feathers of a Kite so soon as they put forth, and stamp the same with Nettles to a liniment. The very dung likewise that these foules do meut, serueth I in stead of a good liniment to annoint the painful gout in any joint whatsoeuer: so do the ashes of a weazill or of shell-snails burnt or calcined and incorporate either with Amydum or gum Tragacanth.

If a man haue gotten a rap or rush vpon any joint, there is not a better thing for to cure it than copwebs: some chuse for this intention, those which be woven by the spiders of ash colour: like as to vse the ashes of Pigeons dung with parched barley groats and white wine. In any dislocation of joints, the most present remedy that is knowne, is sheeps suet tempered with the ashes of of womens haire burnt. This suet likewise serueth well to bee applied with allum to the kibes of the heels: so do the ashes of a dogs head, or of mice dung. But in case there be any vicer there not yet putrified, adde wax thereto, and it will skin vp and heale the same: and the like effect is wrought by the light ashes of criquets burnt and tempered with oile, or els with the ashes of the wild wood-mice mixt with hony: of earth-worms also incorporat with old oile: & lastly, many apply thereto the snails that be found naked & without their shells. And verily, the ashes of such snails burnt alive, heale all sores of the feet: howbeit, if the feet be galled & but lightly ex-coriated, there is not a better thing for them than the ashes of hens dung, or pigeons dung incorporat with oile. If the shoo hath rubbed off the skin, or fretted any part of the foot, the ashes of an old shoo-sole are singular good to heal the same: so are the lights of a ram or lambe. The pouder of a caples teeth is a soueraigne and speciall remedy for the feet, if there oue out any matter from vnder the nailes. The blood of a green lizard healeth the galls vnder the foot, yea, and cureth thoroughly the sore feet both of man and beast, if they be dressed therewith.

Pura vlcera.
Multi mulieres
Sometime mu-
lis to be the
mule ingen-
dred by a male
asse & a mare:
but Mulagone
that mule that
commeth of
an houle and
female asse.

As for the corns and agnells which arise about the feet, it is good to besmeare them with the vrine of * Mule or mullet, together with the mire in the very place where they italed: also with sheeps dung. The liuer or blood of a greene lizard applied vpon some flocke to the place, or vpon a locke of wooll. Some vse in that order, earth-wormes stamped with oile, or the head of the star-lizard Stellig, incorporat in oile with a like quantity of Agnus Castus. Last of all, others take Pigeons dung sodden in vinegar, and lay the same to the place.

Touching werts, of what sort soeuer they be, there is not a more proper thing to make them fall off, than to bathe them well with the vrine, durt and all, of a dog where he lately pissed: or to apply thereto a salve of dogs dung ashes and wax: it is not amiss also to lay to them sheeps dung, or to rub them wel with Mice blood new killed: or to apply a Moule split along the mids M of a liue: the gall likewise of an Vrchin: the head of a lizard: or the blood: or lastly, the ashes of a li-lizard calcined: the old slough of a snake also. Lastly, hens dung incorporat with oile and salnitre. If all these medicines fail, begin the cure new with Cantharides incorporat with wilde grapes called Vva taminæ: this is a corrofiue, & wil eat them out: but when they be thus fretted & ex-
ulcerat

A ulcerat, the cure must be followed with those appropriat means which I haue set downe before in the healing of vlcers.

CHAP. X.

Medicines appropriate for diuers and sundry diseases which possesse the whole body.

Returne we now to the cure of those maladies which are incident not to this or that member, but to the whole body. First and foremost, the Magitians say, that the gall of a blacke dog (a dog I say and not a bitch) is a singular countercharme and preferuatiue against all B sorceries, enchantments, and poisons, which may indanger a whole house, in case there be a perfume made therewith to purifie the aire thereof, yea, and to hallow and blesse it against all such dangers. The like effect (say they) we are to look for, if the walls of the said house be sprinkled or striked with the blood of the said black dog, with this charge, To burne vnder the threshold or dore fell at the entry of the said house the genitall member of the same dog. Men may maruell well enough at these fooleries and absurdities of theirs: but surely wonder lesse will they thereat, who know what store they set by illfaured ticks, the foulest and nastiest creatures that be: and why do they thus magnifie so filthy a vermine? because (forsooth) this creature onely of all others hath no passage at all for the voidance of excrements, sucke it neuer so much: and no way there is but death with them when they are thus full, but so long only as they continue hungry and fasting: and yet they say, that they wil indure so a long time, euen a whole seuen-night together with abstinence and spary feeding: many let them feed stil to the ful, they wil not hold out so long, but burst again in fewer daies space. Well, this tick, so filthy as it is, and of so admirable and strange a nature in their conceit, they hold to bee of exceeding vertue to appease all paines and torments of the body whatsoeuer, in case a man take one of them, with the left eare of a dog, and carry them hanging to some part about him. And more than that, these Magitians take marks by it, & preface of the life or death of their patients; for they hold it for a certain and assured signe of life, if one hauing a ticke about him, stand at the beds feet where the sicke man lieth, and when he asketh him how he doth, and where he is amiss, &c. if the patient make answer readily vnto him; but in case hee make no answer at all, then surely hee shall die there is D no remedy. But take this withall: this ticke must be plucked likewise from the left eare of a dog, and the same dog ought to be cole-blacke without any specke of other colour. And Nigidius hath left in writing, that dogs will not all day long come neare vnto a man nor abide to see him, who hath lucked a ticke from an hogge. But to returne vnto our Magitians: they affirme, that such as be lunaticke and beside themselves, shall come againe to their right wits and senses, in case they be sprinkled with the blood of a moule. They auouch moreover and say, that if one seeth the tongue, eies, gall, and guts of a Dragon in wine and oile, and permit this decoction to coole all night abroad in the open aire, it is a soueraigne medicine to chase away such bugs, spirits, and goblins, wherewith folke be haunted and affrighted in the night season, if they bee annointed therewith all ouer their bodie, morning and euening. Nicander writeth, that who soeuer E carry about them the serpent Amphibæna dead, or no more but the very skin thereof hanging fast to any part of their bodies, they shall finde it to bee a most soueraigne remedy for any through cold or chilling fitt that hath surprised them. Nay hee staith not there, but addeth moreover and saith, that if the said serpent be bound vnto any part of a tree that is to bee felled and laid along, the workemen that hew at the butt thereof, shall feele no cold all the while; and the tree by that meanes shall the sooner and more easily bee cut downe and ouerthrowne. No maruell therefore, if this serpent aforesaid dare leaue his nest, and commit himselfe to the cold weather, for he venturith first to come abroad, and is to be seene, about ground before the Cuckow begins to sing. But since I haue made mention of the Cuckow, there comes into my minde a strange and miraculous matter that the said Magitians report of this bird: namely, that if a man the first time that he heareth her to sing, presently stay his right foot in the very place where it was when he heard her, and withal marke out the print and just proportion of the said foot vpon the ground as it stood, and then digge vp the earth vnder it within the said compasse, looke what chamber or roome of the house is strewed with the said mould, there will no fleas breed there.

They say moreover, that the fat which is fleeted or skimmed from the broth wherein dormice and rats be sodden, is excellent good for those that be affraid of the palsie, and subject thereto: also that Sowes or Cheeslips called Millipedæ, prepared and taken in drink, in manner as I appointed for the squinancie, are singular for those that find themselves to bealne into a phthisick or consumption of the lungs: so is a green Lizard (by their saying) sodden in three sextars of wine, till there be but one remaining, if the patient take thereof a spoonfull at a time every day, vntill he feele himselfe warished and fully cured. Others assure vs of as great effect, by drinking the ashes of shell-snails in wine.

king the ashes of shell-snailles in wine.
As for the falling sicknesse, the tried greace of sweatie and vnwashted wooll tempered with a little myrrhe, so that the quantitie of them both arise to the bignesie of an hazell nut, cures the same, if it be taken infused and dissolved in two cyaths of wine, presently after the patient haue sweated and be come out of the baine. For the same disease, they ordaine the cullions or stones of a ram which haue bin kept long and dried, to be reduced into pouder to the weight of halfe a denier Romane, and so to be taken in water, or else in one hemine of asses milke, bowbeit with this charge, That the patient forbear drinking of wine fife daies after, and as many before. Furthermore, they do highly commend the drinking of sheeps blood: likewise their gall in milke, but principally if it be the gall of a lambe: a sucking whele is very good in this case, if it be taken with wine & myrrhe; but first the head and feet must be cut away. Some for this purpose drink the surots or rough werts growing to the legs of a mule, in three cyaths of oxymell: others giue order to drinke in vinegre the ashes of the star-lizard Stellion, which breedeth beyond-sea: and the tender skin or slough of the said Lizard (which the casts in the same maner as a snake doth) taken in drink, helpeth much. Some Physicians are so venturous and bold, that they haue giuen to those who be subiect to the falling sicknesse, the verie Stellion it self, after it is rid and clenfed from the garbage or gurs, and so kept dried; appointing their patients to drinke the pouder thereof in some conuenient liquor, through a pipe of a cane: others appoint it to be tosted vpon a wooden broch or spit, and so to be eaten for meat. And seeing I haue occasion thus to write of this Stellio, and the skin thereof, it were very conuenient and necessarie in this place to shew the manner how the said slough (which is growne ouer him in winter) may be gotten from him when he hath turned himselfe out of it, considering that he vseth commonly to deuoure and eat it himselfe, because it should not do any man good; for there is not a beast againe more spightfull to mankind, and enuious of our commoditie: insomuch as this word * Stellio is growne to be a reprochfull tearme among vs. Well, to meet with this skin of his (as craftie as he is to be guile men of it) they vse to obserue in hot summer daies, his nestling hole into which he is wont to retire himself: and ordinarily they find it to be in some hollow crannies about doores & windows, or else vnder vaults and sepulchres: when they haue espied where it is, they wait for the prime of the Spring, they set iust against his hole certaine litle cages or leaps made of clouen and sluied reeds, and the same wrought and wouen good and thicke: and in very truth he delighteth to get betweene the streights and narrow passages of the staues and windings, whereof the said cages are made, for by means thereof he may the better slip himselfe out of that coat which cloggeth his body and maketh him vnweldie: and thus in getting through the said lattices, he leaueth the same behind him: but after he hath thus done, hard bested he is, for back he cannot the same way again for to eat the said slough. Certes, there is not a medicine preferred before it, for the falling sicknes: and yet good reckoning there is made of the brains of Weazles which haue bin kept and dried: yea and of the liuer so prepared, if they be reduced into pouder and so taken in drinke: yea their very genetours, and bagg or matrice wherein they beare and breed their young, or their maw likewise saued, dried and condire with coriander seed, are singular good for this maladie, as I haue heretofore noted: and so are their ashes. Some are of opinion, that it is good eating of them whole as they be, especially the wild kind, without any such preparing & dressing, but others esteeme ferrets to be as effectual as they, for the falling euil. Moreover, it is said: that the green lizard eaten with some sharp sauce that quickneth appetite, is singular good in this case, but the heads and feet must be first taken away. Moreover, the ashes of shell-snailles together with line-seed & nettle-seed, brought into the form of a liniment with honny, cure those thoroughly of this disease who are all ouer annointed therewith. But I like better yet, that for this maladie one should carrie about him the taile of a dragon bound within a buckler, or does skin to some part of his body, with the sinews of a stag or hind: or els to tie vnto the left arme

* *Stellionatus*
c. i. e. as much
as couzenage,
or cony-
catching.

A arme the little stones that be taken out of the craw or giser of yong swallows: for it is said, that so soone as the old swallow hath hatched her birds, she giueth them such little stones to swallow downe: but in case this dose be taken in the very beginning, and that the first time that one is false of this disease, there be giuen to him for to eat, the yong swallow that the dam hatched first, he shall be deliuered from it clearly and neuer haue more fits. But at any time after, swallowes blood and frankincense, or els the heart of a swallow fresh killed, cureth them that be surprized with this malady, if they swallow the same downe. Moreover, it is said, that the little stone found in a swallows nest, if it be but applied vnto man or woman that is false of this sickness, it will raise them out of the fit, and bring them againe to themselves immediately; but if they carry it tied to any part about them, they shall neuer haue fit againe. Much talke there is
B also of a kites liuer, that it should be of singular operation to this effect, if it be eaten: as also of a serpents old skin which she hath cast off, that it wil do no lesse. The heart of a vulture stamp together with the own blood, and giuen in drink 3 weeks together, worketh wonders in this disease. So doth the heart of the yong bird of a vulture, if the patient weare it about his arme, or hang it at his necke: but then they giue counsel, to eat the flesh of the vulture it selfe, & especially when he hath eaten his ful of mans flesh. Some of them ordaine the brest of a vulture to be drunk, but it must be out of a cup or maser made of the wood of Cerrus: and others there be who to this purpose cause the stones of a cock to be kept and dried, and the same to be giuen to the patient in water and milk, after he hath abstained fife daies from drinking wine. To conclude, there haue bin of them, that prescribed vnto their patients in this case, 2 1 of these sandy or reddish flies (but they must be dead ones) for to be taken in drinke: howbeit, if they were but of a feeble complexion, they gaue fewer of them.

СНАР. XI.

¶ *Against the Jaundise and Phrensie. Against Feauers and the Dropsie.*

THe excrement ingendred in the eares, called commonly Eare-wax, mightily withstandeth the jaundise: so doth that ordure also which gathereth about the vdders & tears of sheepe and goats, if the patient drink thereof to the weight of one denier in two cyaths of wine, with some myrrh, though it be neuer so little: the ashes of a dogs head calcined, taken in honied wine: one of these fowes or Cheeslips with many feet, in one hemine of wine: earthworms in honied vineger with myrrh, be all excellent for the said disease. Moreover, it is said, that a hen with yellow feet is very good therefore; in case the said feet be clenfed and washed first in faire water, afterwards bathed and rinsed in the wine that the patient is to drink. The brains of a Partridge Ægle, or other birds of prey, taken in three cyaths of wine, is very proper also therefore. The ashes of dates; those also of the entrails of stock-doues, given in honied wine to the quantity of three spoonfulls, are soueraigne in this malady: likewise the ashes of sparrows burnt in fire made of vine-wod, work the same effect, if they be taken in mead to the quantity of 3 spoonfulls. A bird there is called in Greeke Icterus, of the yellow colour which the feathers carry, which if one that hath the jaundise do but looke vpon, he or she shall presently be cured thereof, but the poore bird is sure to die for it: I suppose that this is the same bird which in Latine is called Galgulus.

As for the Phrensie, it seemes that the lights of a mutton, applied hot round about the head, and so kept fast, is soueraigne to bring their heads againe into temper, who are besides themselves. Say that true it were, that not only the brains of mice giuen in water to drink, or the ashes of a weazil, but also the flesh of an vrchin kept in salt ordred, are very good for such as are bereft of their right wits; who will venture to giue them these medicines, be they neuer so certain and assured? For as touching the ashes verily of Scrich owls eies calcined (which these Magicians so highly commend for the phrensie) I take it to be one amongst many other of their illusions, whereby they mocke and abuse the world. But above all, the course that they take in the cure of Feuers, fauoreth nothing at all of Physick, which indeed is opposit to all their rules and proceedings: for they haue diuided and digested the same into all the 12. signes in the Zodiack; according as the Sun or Moone passeth through any of them. All which, is nothing els but a meere mockerie to be rejected and vtterly condemned, as I will plainly prouoe and shew to the view of the eye by some few examples and instances gathered out of many. For in the first

place they ordain, that when the Sun is in Gemini, the combs, the ears, the nailes, and clawes of G cocks should be burned, and the ashes thereof tempered with oile, wherewith the sicke persons are to be annointed all ouer: but if the moon do passe through the said sign, the same cure (they say) is to be done with the ashes that come of their barbs & spurs: whiles either Sun or Moone say be in Virgo, the cure doth alter, and is to be wrought with barley corns in the same manner vsed. But how if either of these 2 planets bee in Sagittarius: then the wings of a Bat must serue the turne. In case the moone be entred into Leo, they employ the leaues and branches of the Tamariske; may it must be the tame and garden Tamarisk in any case. Lastly, if she be in Aquarius, they prescribe the coles made of box wood, punned and puluerized. Certes, I purpose not to run through all their receipts: such onely as are found and approued good, or at leastwaies carry some shew and probability thereof. I am content to set downe: as namely, when they giue order for strong odours and perfumes to be applied vnto patients lying of a lethargy, for to awaken and raise them out of their dead sleepe: among which peraduenture, the stones of a weazill dried and long kept, or their liuer burnt, may doe some good. And whereas they thinke it conuenient to apply hot vnto their heads all about, the lungs of a Mutton, they speake not altogether besides sense and reason.

As for quartane agues, so far as much as it is often seen, that all the physicke that is vsed about them doth little good or none at all, be a Physitian neuer so Methodical, Rational, & Diligent, yea, though he visits such patients ordinarily, & be present with them by their bed sides: in that regard I will not stick to relate many of their medicines and receipts for this disease; beginning first with those that are local, and outwardly to be applied, hanged, or worne about any part of the body. *Imprimis*, they say, that the dust or sand wherein any hawke or bird of prey hath basked or bathed her selfe, is singular good for the quartane ague, if the patient weare it in a linnen cloth tied with a red thred. Item, the longest tooth in the head of a cole-black dog, is very proper for this purpose. There is a kind of bastard wesps, which the Greeks thereupon call *Pseudospheces*, and ordinarily they do flie alone, and not in troupes as others doe; which, if they be caught with the left hand, and hanged about the neck vnder the chin, do cure quartans, as some Magitians say: howbeit, others attribute this effect to one of these wesps, which a man saw first the same yeare. Cut the head of a Viper off, or take out the heart aliue, and wrap the one or the other within a little linnen rag, and carry it about you, the quartane ague will be gone anon, by their saying. Some of them take only the little pretty snouts end of a mouse, or the very tips of K their saying. Some of them take only the little pretty snouts end of a mouse, or the very tips of the ears, and injoin the patient to lap the same in a red carnation coloured cloth, and so to carry it about him; but then the mouse must in any case be let go again and not killed. Others pluck out the right eie of a green lizard aliue, which done, within a while after they chop off the head: then they infold them both in a piece of goats skin, and giue the patient in charge to haue the same about him: and many there be, who by the direction of magitians carry about them in like manner for the same purpose, one of these flies or Beetles that vse to roll vp little bals of earth: and in very truth, in regard of this kind of beetle, the greater part of Ægypt honour all beetles, and adore them as gods, or at leastwise hauing some diuine power in them: which cerimoniall deuotion of theirs, *Appion* giueth a subtill and curious reason of, for he doth collect, that there is some resemblance between the * operations and works of the Sun, and this flie: and this hee L setteth abroad, for to colour and excuse the superstitious rites of his countrymen. Howbeit, the Magitians employ in the cure of a quartan ague, another kind of them * which hath little horns turning backward, but they must be gotten likewise with the left hand, or els they will doe no good. As for the third sort, spotted with white, and called in Latine by the name of *Fullo*, they appoint one of them to be slit through in two, and the 2 pieces to bee tied to both armes of the patient; whereas those of other kinds, they bind to the left arme only. Semblably they say, that the heart of a snake taken out of her body aliue with the left hand, cureth the quartan, if the patient carry it about him: as also, that whosoever taketh foure of the knots or joints of a scorpion's taile, together with the sting, and carrieth the same about him inwrapped within a piece of black cloth, with this charge, That for 3 daies space hee doe not see either the scorpion which M was let go, nor the party who tied the said cloth and that which is within it about him, hee shall be deliuered from the quartan ague: but after the returne of the third fit, the patient must hide this clout and the joints aforesaid, & bury them in the ground: some there be who lap a caters piller in a little piece of linnen cloth, & bind the same thrice about with linnen thred, making three

* Haply, because all these beetles be collected of the male sex, & none of them female: for in those little roundles of earth there breed grubs, which turne to be in the end beetles. * This beetle hee called before *Taurus*, i. Bull,

A three knots thereof, saying at the knitting of euery knot, that this they do to cure him or her of a Quartane feuer. Others carry about them a naked snail in a little piece of fine leather: or else foure heads of snails cut off and inclosed within a small reed. Many thinke it better to infold one of these fowls or Cheeslips within a Locke of wooll, and so to carry it about them against the quartane, or els the little grubs or worms whereof come the ox-flys, before their wings bee grown. And there be that for this purpose fit themselves with those small worms couered al ouer with a kind of down or Cotton, which are found in thickets, & among bushes or shrubs. Some of these Magitians giue direction otherwhiles to take 4 of the said wormes inclosed within a wal-nut shel, & to bind them to some part of the patient, or els the snails which be found naked without their shels. Others put a liue Stellion or star-lizard in some little casket or box, & lay B the same vnder the pillow or bolster where the patient laieth his head: but when the ague beginneth to decline and is like to go away, they let the Stellion go againe at liberty. They prescribe likewise to swallow downe the heart of a sea-gull or cormorant, taken forth of the bodie without any knife or instrument of yron: if not so, to keepe the same dried, to beat it to powder, and then to drink it in hot water. The hearts of swallows condite in hony, and so eaten, bee excellent good for the quartane ague, as our Magitians say. And yet some of them make no more ado, but giue of their dung to the weight of one dram, in 3 cyaths of goats milke and ewes milke, or els of wine cuit, before the access come. Howbeit, others would haue the Swallows themselves to be eaten whole without any dressing at all. The people of Parthia drink for the quartan ague the sixt part of a denier weight of an Aspis skin, with the like poise of pepper, & they hold C it to be a soueraigne remedy. *Chrysippus* the Philosopher was of opinion, and so he hath put down in writing, That to carry one Phrygianum tied to some part of the body, is excellent for the quartan. But what living creature he would meane by that same Phrygianum, neither hath he himselfe described, nor euer could I meet with any man that knew it: howbeit, I thought it good to set downe this remedy, being thus deliuered by so graue an Author as *Chrysippus* was, to stir vp the diligence of others, if haply there be any so industrious as will take paines to search farther into the thing, and learne what it might be.

In any of these long diseases which be called Chronique, it is commonly thought, That to eat the flesh of a Crow, & to apply vnto their body their * nest, is most excellent to bring them to an end.

D As for Tertian agues, it were an easie matter to try the experiments of such receipts as are giuen out for them: considering how the poore patients in hope of ease are willing enough & delighted to be doing and working conclusions: and namely to see whether the copweb, nest, and all, of that spider which they call * *Lycos*, incorporat with rosin and wax, & so applied as a frontale to the forehead and temples on both sides of the head, will do any good to rid them away. Certes, some vse to wear about them the spider it selfe, inclosed within a quill or piece of a reed: in which sort it is reported to auail much in the cure of other feuers. Also it is thought, That a green lizard hung about the neck aliue in some box sufficient to receiue it, is as effectuell. And these kind of medicines they affirm to be of great efficacy for to driue away those agues which by way of relapse vse often to return againe when they were thought to be cleane gone.

E Touching the dropsie, the tried grease of sweaty wooll taken in wine with a little Myrrh, so that the whole arise to the quantity of an Hazel nut, is supposed to be a singular receipt: but some put thereto Goose grease also and oile of Myrtles. The filthy ordure that gathereth about Ewes vdders, hath the same effect. Likewise, the flesh of an vchin long kept in powder or otherwise, and eaten, doth much good. To conclude, it is thought, that if the belly be rubbed well and annointed with that which a dog doth vse to cast by way of vomit, it helpeth those that bee in a dropsie, for it is reported to haue a speciall vertue to draw a water, and to drie vp the superfluous humidity ingendring that disease.

* *Nidum* Some reade *Nidum*.

* *Lycos*, Supposed to be our common spider that hunteth flies.

CHAP. XII.

Medicines for *S. Antonies fire*, Carbuncles, fellons, burns, crampes, or contractions of sinewes.

THE suet or grease of vnwashed wooll incorporat with oile of Roses and Tutie, is a proper liniment for *S. Antonies fire*: so is the blood of a tike, and earth-wormes reduced into an vnguent with vineger: but especially these *Cricquets*, crushed and wrought within ones hand

hand to the consistence of an vnguent and so applied. And this medicine last mentioned, is passing effectuall for the party himselfe that hath the handling of it: for it assureth him aforehand, that he shall not fall into the said disease in a whole yere following: but this Criquet must bee digged out of the ground with some instrument of yron, and the earth & all to be taken vp with it, for to serue in this cure. Moreover, it is said, That goose grease is very good in this case: so are the ashes of a Vipers head kept dried & then calcined, if the same be afterwards applied in form of a liniment with vineger. The old sloughs that snakes cast off, reduced into an vnguent with Bitumen and Lambs suet, quencheth this burning humor of *S. Antonies* fire, if the body be anointed therewith tempered in water, presently after the baine.

As for Carbuncles, the means to rid them away, is to annoint them either with Pigeons dung alone, or els mixed with Linseed and honied vineger: likewise, it is good to make a cataplasme of those Bees which haue bin drowned or killed in their own honey, and lay the same vpon the fore. Others apply vnto them either a pulstesse of fried Barley groats, or else a powder made with their meale. If there be a carbuncle risen in their priuities, the fattiness of greasie and vnwashed wooll, incorporat in hony and the skales refuse or cinders of lead, into a salve, cureth it: and the same healeth generally all other botches or vlcers in those parts. Sheeps dung that is fresh and greene, they hold to be singular for carbuncles, taken in the very beginning.

All tumors and hard swellings, which had need to be mollified, are made soft and brought downe most effectuall with Goose grease, or the fat of a Swan.

Moreover it is said, That a spider laid to any fellon, before it be once named what thing it is cureth the same; but it must not be removed from the place before the third day. The mouse called an Hardi (hew hangd vp aliue vntill it be dead, is very good for these fellons, in case it touch not the ground afterward, and that there be 3 circles or turnes made with it round about the fore; so that withall both the patient and the party that hath this cure in hand, spit vpon the floore three times in the doing thereof. Also the dung of Cocke or Henne (that which looketh reddish especially) tempered with vineger & laid to a fellon, healeth it: but the said dung ought to be fresh and newly meuted. Of the same operation and effect is the gisier of a Storke boiled in wine. Some there be that take certain flies of some odde and vneuen number, bruise and work them into the consistence of a saue; with their *ring-finger, and therewith apply them to the fellon. Others vse for the said purpose the filth ingendred in sheeps ears: old sheeps tallow mixed with the ashes that come of womens haire, reduced into a liniment, serueth to cure the sayd accident: so doth rams suet mixed with the ashes of a pumish stone calcined, and a like quantity in weight of salt.

As for burns and scaldings, the ashes of a dogs head burnt, are singular good to cure the same: so be the ashes of Dormice tempered with oile: sheeps treddles also mixed with wax: the ashes of mice and shell-snails; and this medicine will skin them so cleane, that there shall no scarre remaine afterwards to be seen. In like manner, the grease of Vipers: or the ashes of Pigeons dung calcined and reduced into a liniment with oile.

Touching the nodosities of the sinewes, the ashes of a Vipers head burnt and brought into an vnguent with the oile Cyprinum, is thought to be a soueraign medicine for to resolute them. Likewise, earth-wormes made into a cataplasme with honey, and so applied vnto the affected place. But if the said sinews doake and be pained, bind vnto them the serpent called Amphip-bena dead, and it will ease the grieve. The like effect you may looke for of Vultures grease, together with the gisier of the said foule, dried or stamped with old swines grease or lard, and so reduced into a liniment. And if we may giue any credit to the Magitians, a drinke made of honied wine, spiced with the ashes of a crich-owles head, together with a Lillie root, wil work the same effect.

In contractions of the sinewes, it is good to eat the flesh of stock-doues, especially if the same hath bin powdered and kept in salt. The flesh likewise of an Hedgehog is as good for crampes and spasmes: as also the ashes of a Weazil. The old slough that snakes leaue off, infolded within a piece of a Bulls skin or leather made thereof, is good to be worn tied about one for to prevent this disease: and more particularly for those spasmes or convulsions that draw the sinews of the neck so, as the head is pluckt backward, there is not a better medicine than to drinke the poise of three oboli of a kites liuer dried, in as many cyaths of mead or honied water.

When the skin turneth vp about the roots of the nails, or the excrescence of the flesh putteth the

A the fingers to pain, which accidents be called in Latine Reduvia, and in Greek Prerygia: it were good to vse to them the ashes of a dogs head calcined, or the matrice of a bitch sodden in oile; with this charge, to annoint them aloft with a liniment of butter, made of ewes milke and hony incorporat together. The burse likewise or little bladder, which containeth in it the gall of any beast, is good for this purpose.

If the snails be ragged and rugged, it is not amisse to apply vnto them Cantharides incorporat with pitch, without reemouing this plaister before the third day: or els to lay vnto them Locusts fried in Goats suet: sheeps tallow also is good therefore. Some mix therewith Birdlime made with Misseleto and Purcelane tempered together: others take Verdegis or rust of brasse and the foresaid birdlime, but they remove not the plaister off in three daies.

B

CHAP. XIII.

Receipts for staunching blood: reprefing or smiting backe the swelling incident to wounds: healing of vlcers and greene wounds: and generally for curing of many other maladies. Remedies all taken from dumbe creatures.

THE suet that commeth from the kell of a mutton, staies any flux of blood, if it be conueied into the place from whence it issueth: so is their rede, especially if it be the rennet of a yong Lambe tempered with water, eit her drawn vp into the nostrils or poured into them: this is thought to be such a soueraigne remedie, that when all others haue failed, it hath done the deed. The earthie substance sticking to shell-snails, hath the same effect: yea, and their verie flesh when they are pulled out of their houses. In case the nose do bleed excessiue, take the said shell-snails, bruse them and lay them to the forehead: they will staunch the bleeding: the copwebs also put vp into the nostrils. As for the brains of a Cocke or Capon, they stop a flux of blood issuing from the braine. But say that blood do gush immoderately out of a wound: it is wonderfull how the ashes of horse dung, together with egg-shells, will stop the same, if it be laid thereto.

As for *wounds, the grease of vnwashed wooll, incorporat with the ashes of torrifed and calcined Barley and Verdegis, of each a like quantitie, and so made into a plaistre, healeth them.

D The same is a soueraign salve for any corrosiue vlcers, be they neuer so maligne & cankerous. It eateth and consumeth the dead flesh about the brims and edges of vlcers, yea, and brings down the excrescence of proud flesh, reducing the same to be euen with the rest about it. The same doth incarnat likewise and skin the place after it is filled vp with yong flesh. If the vlcers proue to be ill fauoured cankers, it is thought, that the ashes of sheeps dung mixed with salnitre, is an effectuall powder for the same: and as great operation is attributed to the ashes of a Lambs leg bones, but principally if the said fores be of the nature of *Nunquan sana*, and will not skin vp, but scorne all healing plaisters whatsoeuer. Much vertue also is attributed vnto Rams lights in these cases, for it eateth away all the excrescences of ranke flesh in vlcers, and there is not the like againe vnto it, for reducing all vnto an equalitie. The very dung also of sheep heat vnder an earthen pan and afterwards wrought into a masse or paste, assuageth the tumour of any vlcers:

E And it serueth likewise to mundifie and heale fistulaes, as also to rid away the chil-blaines or bloody fells, which are our night-foes. But of al other, the ashes of an horse head is most forcible in this case, for it consumes all superfluous flesh growing in fores, and heales vp the same afterwards, no Spodium better. And yet it is said, that mice dung is very good therefore: like as the ashes of Weazils dung. The hard callosities in the bottome of vlcers, the Cheeslips or Sowes if they be stamped fresh and reduced drie into powder, do search thoroughly: like as all cankers also they cure, if they be incorporat with the right Turpentine and common *Bole-Armoniacke. And these medicines abouesaid are singular for those vlcers that be giuen to breed worms, and thereby are dangerous. And seeing I am light vpon the mention of wormes, it would be noted, that there be diuerse sorts of wormes which haue wonderfull properties in these cases: For first and formost, the grosse and fat wormes breeding in wood & timber, which the Latins call Cossi, are soueraigne healers of any vlcers whatsoeuer. But if the same be burnt with an equal weight of Annise seed, and reduced into a liniment by means of oile, they haue a speciall vertue to cure those fores that be corrosiue, which the Greeks call Nomæ. Earthwormes are great healers,

and

*Medico, i. the fourth or next to the little finger.

*Vulueribus. Some read: Viceribus, i. Vlcers.

*Sinopide: Some take it for Terra Sigillata: but it skilltch not much, seeing that Rubrica Sinopica, Terra Sigillata, & Bolus Armena, yea, and Terra Lemnia, little differ in operation, nisi secundum magnitudinem, as the learned think. Vide Encellum de re Metallina.

and soon do soulder greene wounds: in which operation they are so effectuall and speedy withal, G That if the sinewes be cut quite asunder, it is a common opinion, that they will consolidat and whiten them again in lesse space than a week: and therefore, because they should be ready and euer at hand, many preferue them for this purpose condite in hony. Indeed, when they be reduced into ashes, they are effectuall to eat downe the hard callosities growing in the sides and edges of vlcers, if they be incorporat with Tarre, or the Sicilian hony called Hyblæum. Some vie them dried in the Sun and tempered with vineger, for wounds: but this cataplasme they doe not remoue vntill 2 daies be past. After the same manner, the terrene or earthly substance of shel-snails do much good: yea, and taken forth whole as they be out of their shels, stamped and so applied, H they conglutinat greene wounds, and stay the running farther of corrosiue vlcers. Also there is a certain liuing creature, which is called Herpes by the Greeks; the same hath a peculiar property to heale any sore that * runneth on still and corrode as it goeth. For which kinde of vlcers, snails, bruised shels and all, be passing good: and the same incorporat with Myrrh and Frankincense, haue the name to heale sinewes that be cut in two: Moreouer, the fat of a Dragon dried in the Sun, is very effectuall: like as the brains also of a Cock, to heale green wounds, if the patient withall eat salt to his meat, which was calcined together with Vipers flesh: and by this means (they say) that any vlcers will sooner yeeld to the cure, and be healed with more speed. The renowned Physitian Antonius Musa, hauing certain Patients in cure vnder his hand, who had vlcers that were thought incurable, prescribed them to eat Vipers flesh; and wonderfull it is how soone he healed them cleane by that means.

* Which also is called Herpes: as the thingles willoe fire, and wolte.

The ashes of certain Locusts without wings, called by the Greeks Tryxalides, cause the thick rous and escars that grow about the brims of vlcers to fall off, and they consume the hard callosities thereof applied with honey. The ashes likewise of Pigeons dung tempered with Orpiment or Arsenick and hony, serue as a corrosiue to eat away any excrescence that ought to be consumed: the brains of schrich-owls incorporat with greafe, doth wonderfully conglutinat any wounds. As for those morimals, named by the Greekes Cacoethe, the ashes of a rams shank-bones & legs mixt with brest milk, is singular to heale them, so that the said sores were first well and thoroughly washed and bathed with fine linnen cloaths soaked in some conuenient liquour. There is a bird called an Hulat, which if it be sodden in oile, & so resolued, is good therefore, in case the same be incorporat with butyr made of ewes milk and hony. If the sides or brims of any vlcers be growne callous and hard, the Bees that are stifled and killed in hony, doe mollifie very well. The bloud and ashes of a Weazill calcined, doe cure the white filthy leprosie called Elephantiasis. The wounds occasioned by whipping and scourging, the marks also and wales remaining to be seen black and blew after such lashes and stripes, are done away and go presently out, with applying thereto a sheeps skin fresh and newly flaid. If there be any joint bruised or cracked, the ashes of a Sheeps leg bone, burnt, haue a special vertue to help the same: but much better, if they be incorporat into a cerot with wax. Of the same operation there is another plaster made; namely, if there be calcined with the former the jaws of the said Sheep, and a Harts horn: and if the wax be softened and resolued with oile of rofat. When bones be broken, it is good to apply vnto the fracture the brains of a dog spread vpon a linnen cloth or inwrapped therein, covering the said cataplasme with wooll laid aloft, and the same eft-soones moistened and wetting the said cataplasme with some astringent liquor:] this manner of cure doth soulder them lightly in 14 daies at the farthest. The ashes also of field-mice work the like effect as speedily, if the same be tempered with honey, or mingled with the ashes of earth-wormes: which also is able to draw forth spils of bones, and make them to worke out. The lights of a Mutton and of a Ram especially, reduce skars to their liuely colour againe, sutable vnto the skinn about: their tallow also mixed with sal-nitre: so do the ashes of a greene lizard: the slough that snakes cast off in the Spring boiled in wine: and Pigeons dung tempered with honey, and so applied. The same me- dicines do take away the filthy white Morpew, called in Latine Vitiligo, if they be vsed with wine: for which Morpew or infection of the skin, it is good to apply Cantharides, with twice as much of Rue leaues, which the patient must indure and abide, lying still vpon the place in the Sunne, vntill such time as the skinn begin to rise in pimples and little blisters. Afterwards it is needfull to foment and bathe the said place thus offended, yea, and to annoint it wel with oile: which done, to returne againe to the former emplastration, and so hold on this course by turns for many daies together, but in any wise to take heed that the exulceration in this cure

* As oile of rofat, or red wine

A go not ouer deep. For the same morpew, many giue order to make a liniment with flies & the root of docks, and herewith to annoint the places infected with this morpew: also, to apply thereto hens dung, I mean as much thereof as is white: for which purpose they keep the same in oile within horn boxes, for to serue the turne as need requireth. Likewise, to annoint them with the bloud of bats, or the gall of an Vrchin tempered with water. As for the running scalls, the brains of a schrich-owle is very good, incorporat with salt-petre: but dogs bloud hath no fellow to repress the same: like as to kill the itch, the little broad snails stamped and brought into a liniment, are soueraigne. If there be any spill or shiuer of arrowes, if any piece of a dart or whatsoeuer els stick within the flesh, which would bee gotten forth, split a liue mouse in the middest, and lay the same hot to the place, you shall see how it will draw the same out. But a Lizard passeth all the rest, being in this wise slit along and diuided: or if the head onely be stamped with salt, and applied accordingly. There be certain shel-snails that creep in troups together for to deuour the yong spring and green leaues of plants, which serue to this effect, if they be punned with their shels and laid to the place. Those also that we vse to dresse and eat, if they be taken forth of their shels: but if you put thereto the rennet of a yong hare or leueret, it is wonderfull to see how effectuall they will worke. Snakes bones incorporat with the rennet of any foure-footed beast whatsoeuer, within lesse than 3 daies shew the same effect, and draw forth any thing that sticketh within the body. Finally, the flies called Cantharides are much commended for this operation, if they be stamped and incorporat with barley meale.

CHAP. XIII.

¶ Proper remedies for the cure of womens maladies: and to help them for to goe out their full time, and bring forth the fruit of their womb fully ripe and accomplished.

The skin or secundine which an Ewe gleaneth after she hath yeaned, and which inlapped the lambe within her belly, prepared, ordered, and vsed (as I said before) as touching goats, it is very good for the infirmities that properly bee incident vnto women and occasioned by their naturall parts. The dung likewise of sheep, be they rammes, ewes, or weathers, hath the same operation. But to come vnto particulars, the infirmity which otherwhiles putteth them to passe their vrine with difficulty and by dropmeale, is cured principally by sitting ouer a perfume or suffumigation of Locusts. If a woman after that she is conceiued with child, vse eft-soons to eat a dish of meat made of cock-stones, the infant that she goeth with shall proue a man child, as it is commonly thought and spoken. When a woman is with childe, the meanes to preferue her from any shift and slip that she may carry out her full terme, is to drink the ashes of Porcupines calcined: also the drinking of a bitches milk maketh the infant within the womb to come on forward & to grow to perfection, before it seek to come forth vntimely: also, if the child stick in the birth, or otherwise make no haste to come forth of the mothers body when the time is come: the skin wherein the bitch bare her whelps within her body, and which commeth away from her after she hath puppied, hasteneth the birth, if so be it were taken away from her before it touch the ground.

If women in labour drinke milke, it will comfort their loins or smal of the back, Mice dung delaied and dissolued in rain water, is very good to annoint the breasts of a woman, new laied, to break their kernel, and to allay their ouermuch strutting presently after childbirth. The ashes of hedgehogs preferueth women from abortion or vntimely births, if they be annointed with a liniment made of them and oile incorporat together. The better speed and more ease shall those women haue of deliuerance, which in the time of their trauell drinke a draught of Goose dung in two cyaths of water: or else the water that issueth out of their owne body by the natural parts a little before the child should be borne, and that out of a weazils bladder. A liniment made of earth-wormes, if the nouch or chine of the necke and the shoulder blades be annointed therewith, preferueth a woman from the pain of the sinews, which commonly followeth vpon child-bearing: and the same send away the after-birth, if when they bee * newly brought to bed, they drink the same in wine cuit. A cataplasme made of them simply alone without any other thing, and applied to womens sore breasts which are impostumat, bring the same to maturation, breake them when they are ripe, draw them after that they runne, and in the end heale them vp cleane and

* Grauidis, et parturientis, hoc purgatio.

and skin all again. The said earthwormes also if they be drunk in honied wine, bring down milk into their breasts. There be certain little wormes found breeding in the common Coich-grasse, called Gramen, which if a woman weare about her neck, serue very effectually, to cause her to keep her infant within the wombe the ordinary terme: but the mnst leaue them off when she drawes neere to the time when she should cry out: for otherwise, if they be not taken from her, they would hinder her deliuerance. Great heed also there must be taken, that these wormes bee not laid vpon the ground in any hand. Moreover, there be Physitians who giue women to drink 5 or 7 of them at a time, for to help them to conceiue. If women vse to eat snailles dressed as meat, they shall be deliuered with more speed, if they were in hard labour: let them be applied to the region of the matrice or naturall parts with Saffron, they hasten conception. If the same be reduced into a liniment with Amylum and gum Tragacanth, and laid too accordingly, they do stay the immoderat flux of reds or whites. Being eaten in meat, they are soueraigne for their monthly purgations. And with the marrow of a red Deere they reduce the matrice againe into the right place, if it were turned a to-side: but this regard must be had, that to euery snaille there be put a dram weight of Cyperus also. If the matrice be giuen to ventosities, let the same snailles be taken forth of their shells, stamped and laid too with oile of Roses, they discusse the windnesse thereof. And for these purposes before named, the snailles of Aftypalæa be chosen for the best. Also for to resolue the inflation of this part, there is another medicine made with snailles, especially those of Barbarie, namely, to take two of them and to stampe them with as much Fenigreeke seed as may be comprehended with three fingers, adding thereto the quantity of four spoonfuls of hony, and when they be reduced all into a liniment, to apply the same to the region of the wombe, after the same hath been well and thoroughly annointed all ouer with the iuice of Ireos, i. Floure-de-lis. There be moreover, certaine white snailles that be small and long with all, and these be commonly wandering here and there in euery place. The beeing dried in the Sun vpon tiles, and reduced into powder, they vse to blend with bean floure, of each a like quantity. And this is thought to be an excellent mixture for to beautifie their body, and make the skin white and smooth. Also, if the itch be offensive, so as a woman be found euer and anone to scratch and rub those parts, there is not a better thing therefore than the little flat snailles, if they be brought into a liniment with fried Barly groats. If a woman with child chance to step ouer a Viper, shee shall be deliuered before her time of an vnperfect birth. The like accident will befall vnto her, in case she go ouer the serpent Amphisbæna, if the same were dead before. And yet if a woman haue about her in a box one of them aliue, shee shall not need to feare the going ouer them, though they were dead. And one of these Amphisbænes dead as it is, and preserued or condite in salt, procureth safe and easie deliuerance to a woman that hath it about her. A wonderfull thing, that it should be so dangerous for a woman with childe to passe ouer one of them which hath not bin kept in salt: and that the same should be harmelesse and do no hurt at all, if immediatly after it hath bin so kept, she step ouer it. A perfume made with a snake long kept and dried, procureth the desired sicknesse of women. The old slough of a snake, which she kept and dried, applied vnto the loines of a woman that is in labour, helpeth her to better speed: but it must be remoued presently after that she is deliuered. Many vse to giue it vnto women with child for to be drunk in wine with frankincense: for being taken otherwise it causeth abortion. The rod or wand whereby one hath parted or taken off a frog or toad from a snake, helpeth women that be in trauell of childbirth. And a liniment made with the ashes of the vnwinged Locusts called Tryxalides & hony tempered together, helpeth forward their monthly purgations. The spider likewise that commeth downe spinning from aloft, hanging by her fine thred which she draweth in a length, if she be caught with the hollow of the hand, bruised & applied accordingly, worketh the same effect: but take the same spider winding vp her yearne, and returning back to her nest vpward, it wil worke contrariwise, & stay the fleurs of women. The Ægle stone called A tites, because it is found in an Ægles nest, preferueth & holdeth the infant still in the mothers womb to the full time, against any indirec& practise of sorcery or otherwise, to the contrary. If a woman be in hard labor of childbirth, put a Vultures quill vnder her feet, it will helpe her to a more speedy deliuerance. Great bellied women, as it is well knowne & found by proofe, ought to be very chairey and to beware of rauens eggs, for if they chance to goe ouer one of them, they shall fall to labour presently, and slip an vntimely birth with great danger of their life. It seemeth to many, that the meuting of an Hawke drunke in honied wine, maketh women which were

were barren before, to be fruitfull. Certes, the greafe of a goose or swan doth mollifie any hard tumors, schirrh, and impostumations of the matrice and secret parts. Goose greafe mixt with the oile of roses and * Ireos, * preferueth womens breasts after they be newly brought to bed. In Phrygia and Lycaonia it is found by experience, that the fat of the Bistard or Horn-owle is verie good for greene women lately deliuered, if they be troubled with the pricking or shooting paines of their breasts: but for women that are in danger to be suffocated with the rising of the mother, they haue a liniment also made with the beetils or worms called Blattæ. The ashes of Partridge eggs calcined, mixed with brasse ore called Cadmia, and wax, & so reduced into a cerot, preferueth womens breasts plump and round, that they shall not be riuelled or flaggie: and it is thought, that if a woman make three imaginary circles round about them with a partridge egg, they shall continue knit vp and well trussed, and not hang downward if sauoredly: let a woman vse to sup them off, she shall be both a fruitfull mother of many children, and also a good milch nurse for to reare them vp. Also it is a generall receiued opinion, that if womens paps be annointed all ouer with goose greafe, it will allay the grieue and paine thereof: likewise there is not a better thing for to dissolue and scatter Moon-calues and such like false conceptions in the wombe: or to mitigate the scurfe or manginess incident to that member, than to apply to those parts a liniment made of punaises bruised or stamped to the purpose.

Bats blood hath a depilatorie facultie to fetch off haire, and lett the growing thereof; howbeit sufficient it is not alone to worke that feat in boies cheeks and chins whom we would keep smooth and beardless; except the place be rubbed afterward with the seed of rocket or hemlock: and in this manner if they be dressed, either no haire at all will come vp there, or els it will neuer be but soft down: it is thought that their brains also wil work the same effect. Now these brains be of two sorts, to wit, red and white: howbeit some giue counsell to mingle with the said brains both the blood and the liuer. Others there be who seeke in 3 hemines of oile a viper, vntill her flesh be thoroughly sodden, and as tender as may be, hauing before rid her from all her bones; and it they vse for a depilatorie: but first they plucke vp all those haire by the roots which they would not haue to grow any more. The gall of an vrchin is a depilatorie, especially if it be mixed with the brains of a Bat, and goats milke. Item, the ashes thereof simply, mingled with the milk of a bitch of her first litter; so that the haire which we would not haue to come againe be plucked vp; or if those places be annointed therewith where neuer yet grew any, none shall spring there afterwards. The same effect (by report) hath the blood of a tick that was taken from a dog: and finally, the blood or gall of a swallow.

CHAP. XV.

Many Receipts handled together disorderly one with another for sundry maladies.

It is said, that Ants eggs stamped & incorporat with flies likewise punned together, wil giue a louely black colour to the hairs of the eie-browes: also if a woman be desirous that her infant should be born with black eies, let her eat a rat while she goes with childe. To preserue the haire from being gray and grisse, annoint them with the ashes of earth-worms and oile oliue mixt together. If sucking babes be wrung or gnawne in the belly, by reason of some cruddled milk which they draw from their nurses, or doth corrupt so in their stomack, it is good to giue them in water the rennet of a yong lambe to drink: but in case this accident commeth by cailling of the milk, they vse to giue vnto them the said rennet in vinegar for to discusse the same. For the paine that they abide in toothing, the brains of an * hare is soueraigne to annoint their gums withall. It falleth out that yong infants many times be tormented with an vnaturall heat and burning of their head, called Siriasis; for to ease and cure them thereof, they vse to take the bones that are found in dogs dung, and to hang them about their necks or arms. Yong infants are subiect to ruptures and descents of the guts, in which case it is good (some say) to apply a greene lizard vnto their bodies whiles they lie asleepe, and to cause it to bite the place: but then afterward the said lizard must be tied fast to a reed and hung vp in the smoke: for look how it decaieth and dieth by little and little, so shall the rupture knit and heale again. The foamie moisture that shiel-snails yeeld, if childrens eies be annointed therewith, doth not onely reme the moisture, but streight the hairs of the eie-lids which grow crooked into the eies, but also nourisheth & causeth them to grow. The ashes of burnt shiel-snailles reduced into a liniment with frankincense

* Leporis or peris, (i. e.) of a Sheepe.

kincense and the white of an egg, doth in the space of 30 daies cure those that are bursten bellied. In the little horns of shell-snails there is found a certaine hard substance resembling grit or sand, which if it be hanged about a young infant, is a means that it shall breed teeth with ease. The ashes of snail shells when the snails are gon, incorporat in wax, and applied to the seat of the fundament, putteth backe the end of the tiwill that is fallen down and ready to hang out of the body: but you must not forget to mingle with the said ashes the bloody substance that is let out of a vipers brains when her head is pricked. The braines of a viper if they be put in a little fine skin, & worn by a yong child, helpeth it to breed teeth without any great pain: for the same purpose serue also the teeth of serpents, so they be chosen the biggest that are in their heads: rauiens dung wrapped in wool and hung to any part of yong infants, cureth the chin-cough.

Some things there remain as touching this argument, which hardly methinks I should not handle seriously & deliuer in good earnest: howbeit since there be diuers writers who haue put them down in writing, I must not passe them ouer in silence. They are of opinion and doe giue order, to cure the rupture and descent of the guts in little children, with a lizard: but how? first it ought to be of the male kind which is taken for this purpose; and that may soone be knowne, if vnder the taile it haue one hole and no more: then there must be vsed all means possible that the said lizard do bite the tumor of the rupture through a piece of cloth of gold, cloth of siluer, or purple: which done, the said lizard must be tied fast within a new cup or goblet that neuer was occupied, & so set in some smoky place where it may die. If little infants pisse their beds, a readie way to make them containe their water, is to giue them sodden mice to eat. If there be any suspicion of forcerie, witchcraft, or inchantment practised for to hurt young babes, the great horns of beetles, such specially as be knagged as it were with smal teeth, are as good as a countercharm and preferuatiue, if they be hanged about their necks. There is (as they say) a little stone within the head of an ox or cow, which they vse to discharge and spit out when they be in danger of death: the same if it be taken out of one of their heads which is suddenly stricken off before the beast beware thereof, & hanged about an infants necke or other part of the body, is wonderful good for breeding of teeth. Semblably they prescribe their brains to be caried about them in like maner, & for the same purpose: also the little bone or stone found in a naked snails back. Moreouer, the anointing of childrens gums with the brains of a yong sheepe, is singular good and effectual to cause them to breed their teeth with facilitie: like as goose grease instilled with the iuice of basil into their ears, cureth the infirmities therof. There be in many prickly herbs certain rough & hairy worms, which if they be hung about the necks of yong infants, do presently cure them, if haply there were any thing in their meat that sticke and lay hard in their stomack, for they wil cause them to puke it vp. To prouoke sleep there is not a better thing than the tried greafe of vnwashed wool, with some myrrh, be it neuer so little infused & dissolved in two cyaths of wine, or els incorporat with goose grease and wine of myrtles: for which intent they vse to take the bird called a Cuckow, and within a hares skin tie it to the patient, or els to bind the bil of a yong heron to the forehead, within a piece of an asse skin: and they are of opinion, that the same bill alone is as effectual, so it be well washed in wine: contrariwise, the head of a bar dried and hanged about the neck, keeps one from sleep altogether. A lizard drowned to death in the vrin of a man, disableth him from the vse of venery, who * drank the liquor whereof that vrine came: and no maruel, for why? the magicians repose a great thing in a lizard in loue matters. The excrements of snails which resemble dung, as also the dung of pigeons, tempered in a cup of wine and giuen to drink, coole fleshly lust. The right lobe or side of a vultures lungs prouoke men to Venus sports, if they cary it about them enwrapped within a cranes skin. In like maner the yelks of five pigeons eggs incorporat with swines grease to the weight of one denier Roman, and so supped off, work the same effect. Some eat sparrows vsually for this purpose, or sup their eggs. Also there be who carry about them the right stone of a cock, inclosed fast within a piece of leather made of a rams skin, and to good effect, if all be true that magicians say: who affirm also, that those women who are anointed with a liniment made of the ashes of the bird Ibis, incorporat with goose grease and the oile Ireos, shal if they be conceiued with a child go out their full time: and they say, that whosoever be anointed with a liniment made of the stones of a fighting cocke and goose grease, shall haue but little mind to performe the act of generation: or if the same be tied vnto any part of them within a piece of leather made of a rams skinne. In like manner, it is said that the stones of any other dunghill cock are of the same effect,

* Biberis, some
rende fecerit,
i. who made
the said water.

A effect, if together with the blood of the said cock, they be but laid vnder ones bed. If one pluck the haire out of a mules taile while the stallion couereth her, and bind the same together in a wreath or knot, & apply them to the legs or loins during the act of generation, they will cause (women) to conceiue whether they will or no. Whosoever maketh water vpon the very place where a dog hath lift vp his leg and pissed, so as both vrines be mingled together, folke say, he shall find himselfe thereby more vnlustie to the worke of Venus. A wonderfull thing it is (if it be true) which they report likewise of the ashes of a star-lizard or Stellion; that if the same be enwrapped within some lint or linnen rag, & held in the left hand, it stirreth vp the heat of lust, but thrust the same into the right hand, it wil coole one as much. Moreouer, that if one put vnder the pillow where a woman laies her head, a few flockes, or locke of wooll foked well in batts blood, it wil fet her on to desire the company of a man; or if she do take a goose tongue either in meat or drink. The old skin or slough that snakes do cast off in the Spring, whosoever drinketh in his ordinary drink, it will kill all the vermin or lice of the body within three daies: so doth the whey of milke after the cheefe is gathered, if one drinke the same with a little salt. If the braines of a weazill be put into the rendles or rennet that goeth to the making of cheefe, they say that the cheefe so made, shall neither corrupt all summer long, nor be eaten by the mouse. The ashes of the same weazill giuen to chickens or young pigeons among the past that is made for to feed them, secureth them from the weazill. Furthermore, it is said, that if a batt be tied vnto a horse or mare or such labouring beasts that are pained in their staling, they shall soon haue an end of that grieue and impediment: if they haue the wringing of the guts, or be troubled with the bots, there will ensue ease of their paine, presently vpon the making three turns or compasses round about their shap and naturall parts with a stockdoue. But see a maruellous matter! the doue being let go, dieth forthwith; and the beast immediatly is deliuered from paine. Moreouer, if you would know a remedy against drunkenesse, make this experiment; Giue for three daies together to great drunkards the eggs of an owle continually in their wine, they will take a loathing thereto and forbear drinking. Whosoever taketh the lights of a mutton roasted, and eateth the same before he sit downe to drinking, shall not be ouertaken or drunken, how freely soeuer he powreth downe the wine. The ashes of swallowes bills incorporat with myrrhe, will secure any man from drunkenesse, and cause him to beare his drinke well, in case the wine that he drinketh be spiced therewith: And Horus king of the Assyrians, deuised first this receipt against drunkenesse.

Quere besides all this, there by many other singular properties behind, worthy to be noted, which are attributed vnto sundrie beasts, and doe properly pertaine to this present treatise handled in this booke: for these magicians tel vs of a certain bird in Sardinia called Gromphana, like vnto a crane, but I beleue verily that the Sardinians at this day know not what bird it is. Within the said Island and prouince, there is a beast called * Ophion, which in haire only resembleth a stag, but in no place els doth it breed: and the very same authors haue told vs of another by the name of Sirulugus, but they set not downe in writing either the description what manner of beast it should be, nor the place where it should breed. I doubt not verily but such sometime there were, considering that they haue shewed diuers medicines that they do affourd.

E And M. Cicero writeth of a beast named Byturos, which gnaweth the vines in Campania.

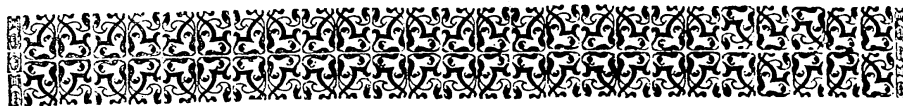
CHAP. XVI.

Strange wonders reported of certaine beasts.

Here remains yet certain wonderfull things to be spoken of, depending vpon those brute creatures, of which I haue treated already: namely, that whosoever haue about them the secondine of a bitch, that is to say, the skin wherein her whelps lay within her belly; or hold in their hands either the hair or dung of an hare, no dogs will bark at them wheruever they come. Also that there be a kind of gnats called Muliones, which liue not aboue a day. Moreouer, as many as haue about them the bill of a woodspecke when they come to take honny out of the hieue, shall not be stung by Bees: againe, let a man giue to swine among their meat, or in a morcell of past or bread, the brains of a rauen, they will follow him whither soeuer he goes. Furthermore, that if one be strewed with the dust wherein a mule hath wallowed & rumbled her self, he shal bewel cooled in loue, how amorous soeuer he were before. Ouere & besides, take a rat & cut

* A Muffie, as
Munster sa-
keeth it.

out his stones, and so let him go againe, he will make all other rats to run away. Make a mass or drench of a snakes skin, salt, red wheat called Far, with some wild running thyme, stamped all together, in one and the same day; put all into wine and conuey the same into the throat of a cow or ox, about the time that grapes begin to ripen vpon the vine, the said beasts will stand to health for a whole yeare after: or giue them young swallowes, and cause them to let the same downe their body in some past or bread at three seuerall times. Gather the dust together out of the place where you see a snake hath gone and made a tract, fling the same vpon a swarme of bees, they shall returne againe to their hieue. Tie vp the right stone or cullion of a ram, he shall get none but ram-lambs. And looke whosoever haue about the strings or sinewes taken from the wings and legs of a crane, they shall not be tired and faint in any labour that they take. If you would haue mules not to winse and fling out with their heels, giue them wine to drinke. Last of all, I cannot ouerpasse one notable and memorable example as touching the house of a mule: when *Antipater* should send the venomous water of the fountaine *Styx* for to poyson king *Alexander* the great, he could meet with no matter that would hold this poyson, without piercing and running through it, but onely the house of a mule: and to the knowledge hereof hee came, by the direction of *Aristotle* the Philosopher, who deuised a cup to be made thereof. A foule staine and blot of *Aristotles* name, for being priue to such vilanie, and setting it forward as he did. Thus much of Land-creatures: it remaineth now to returne againe to those of the Waters, and their vertues in Physicke.



THE XXXI. BOOKE OF THE HISTORIE OF NATURE, WRITTEN BY C. PLINIUS SECVNDVS.

The Proem.

CHAP. I.

¶ The medicinable vertues of creatures lining in water. The admirable nature of waters.



Now followeth the discourse of Water-beasts, and how beneficiall they be vnto vs in regard of Physicke: wherein verily dame Nature (the mother and workemistress of all things) sheweth how little idle shee is, not ceasing euen there also by her continuall operations to make knowne her wonderful power, among the waues and furling billowes, amid the reciprocal tides of the sea, ebbing and flowing in their alternatiue turnes; yea and in the swift course and streames of great riuers. And verily, to say a truth and speak as it is, there is no part of the World wherein the might and maiestie of Nature more appeareth, than in the waters: for this one Element seemeth to rule and command all the rest. Waters deuoure and swallow vp the earth: waters quench and kill the flames of fire: they mount vp aloft into the aire, and seeme to challenge a feignorie and dominion in the heauens also; whiles by a thick feeling and floore as it were of clouds, caused by the dim vapours arising from them, that vitall spirit which giueth life vnto all things, is debarred,

stopped,

A stopped and choaked. And what might the reason els be of thunder and lightnings flashing and breaking forth in that violence, and causing such trouble and broils, as if the world were at war within it selfe? And can there bee any thing more wonderfull and miraculous, than to see the waters congealed aboue in the aire, and so to continue pendant in the skie? And yet as if they were not contented to haue risen thus to that exceeding height, they catch and snatch vp with them into the vpper region of the aire, a world of little fishes: otherwhiles also they take vp stones, and charge themselues with that ponderous & weighty matter which is more proper to another Element. The same waters falling downe againe in raine, are the very cause of all those things here below which the earth produceth and bringeth forth. And therefore considering the wonderfull nature thereof, and namely, how the corne groweth vpon the ground, how trees and plants doe liue, prosper, and fructifie by the means of waters, which first ascending vp into the skie, are furnished from thence with a liuely breath, and bestowing the same vpon the herbs, cause them to spring and multiply; we cannot chuse but confesse, that for all the strength and vertue which the Earth also hath, (hee is beholden to the Waters, and hath receiued all from them. In which regard, aboue all things, and before I enter into my intended discourse of Fishes and beasts liuing in this Element, I meane first to set down in generality the marvellous power and properties of water it selfe, and to illustrat the same by way of sundry examples: for the particular discourse of all sorts of waters, what man liuing is able to performe?

CHAP. II.

¶ The diuersitie of waters: their vertues and operations medicinable: and other singularities obserued therein.

There is in maner no region nor coast of the earth, but you shall see in one quarter or other waters gently rising and springing out of the ground here and there, yeelding fountains in one place cold, in another hot; yea and otherwhils there may be discouered one with another neere adioynning: as for example, about * Tarbelli a towne in Guienne, and the Pyrenæan hills, there do boile vp hot and cold springs, so close one vnto the other, that hardly any distance can be perceiued between. Moreover, sources there be, which yeeld waters neither cold nor hot but luke-warme, and the same very wholesome and proper for the cure of many diseases; as if Nature had set them apart for the good of man only, and no other liuing creature beside. To these fountains so medicinable, there is ascribed some diuine power, inso much as they giue name vnto sundry gods and goddeses, and seeme to augment their number by that means: yea & otherwhiles great towns & cities carrie their names: like as Puteoli in Campanie, Statyellæ in Liguria; Aquæ Sextiæ in the prouince of Narbon or Piemont: but in no countrey of the world is there found greater plenty of these springs, and the same endued with more medicinable properties, than in the tract or vale Baianus within the realm of Naples, where you shall haue some hold of brimstone, others of alume; some standing vpon a veine of salt, others of nitre, some resembling the nature of Bitumen, and others againe of a mixt qualitie, partly soure, and partly salt. Furthermore, you shall meet with some of them, which naturally serue as a stoupe or hot-house; for the very steeme and vapour only which ariseth from them, is wholesome and profitable for our bodies: and those are so exceeding hot, that they heat the baines, yea and are able to make the cold water to seeth & boile again which is in their bathing tubs: as namely, the fountaine Posidianus which in the foresaid territory Bajanus, which name it tooke of one *Posidius* a slave sometime, and enfranchised by *Claudius Caesar* the Emperour. Moreover, there be of them so hot, that they are able to seeth an egg or any other viands or cates for the table. As for the Licinian springs, which beare the name of *Licinius Crassus*, a man may perceiue them to boile and reeke againe, euen out of the very sea. See how good Nature is to vs, who amid the waues and billowes of the sea, hath afforded healthfull waters! But now to discipher their vertues in Physicke according to their seuerall kinds: thus much in generality is obserued in these baths, That they serue for the infirmities of the sinews, for gout of the feet, & sciatica. Some more properly are good for dislocations of ioints, and fractures of bones: others haue a property to loosen the bellie & to purge: and as there be of them which heale wounds and vlcers, so there are again that more particularly be respectiue to the accidents of the head and ears: and among the rest, those which beare the name of *Ciceronianæ*, be so ueraign for the eies, Now there

M m 3

is

is a memorable manour or faire house of plaifance, situat vpon the sea side in the very high way G which leadeth from the lake Auernus to the cittie Puteoli; much renowned for the groue or wood about it, as also for the stately galleries, porches, allies, and walking places adioyning ther- into, which set out and beautifie the said place very much: this goodly house, *M. Cicero* called Academia, in regard of some resemblance it had vnto a colledge of that name in Athens, from whence he tooke the modell and patterne: where he compiled those books of his which carrie the name of the place, and be called * *Academicæ quaestiones*: and there he caused his monument or sepulchre to be made, for the perpetuities of his memoriall, as who would say, he had not suffi- ciently immortalized his name throughout the world, by those noble works which he wrote and commended vnto posteritie. Well, soone after the decease of *Cicero*, this house and Forrest both fell into the hands and tenure of * *Antistius Vetus*; at what time, in the very forefront as it were H and entrie thereof, there were discovered certaine hot fountaines breaking and springing out of the ground, and those passing medicinable and wholesome for the eies. Of these waters, *Laurea Tullius* (an enfranchised vassall of *Cicero*) made certaine verses, and those carying with them such a grace of maiestie, that at the first sight a man may easily perceiue how affectionate and deuout he was to the seruice of his lord and master: and for that the said Epigram is worthy to be read not onely there, but also in euery place, I will set it downe here as it standeth ouer those baines to be seene, in this Decasticon.

* Like as *Tuf- culane quaestio- nes*, which bee made in *Tuf- culano*, i. a ferm or house that he had in *Tusculum*.
* A noble man of Rome, Consult with *D. Laelius Bal- bus*, anno ab urbe condita 747.

*Quo tua, Romana vindex clarissime lingua,
Sylvia loco melius surgere iussa viret,
Atque Academia celebratam nomine villam.
Nunc reparat cultu sub potiore Vetus
Hic etiam apparent lymphæ non ante repertæ,
Languida quæ infuso lumina rore levanti.
Nimirum locus ipse sui Ciceronis honori
Hoc ædedit, hac fontes cum patfecit ope,
Ut quoniam totum legitur sine fine per orbem,
Sint plures, oculis quæ mediantur, aquæ.*

O prince of Romane Eloquence, loe here thy Groue in place
How Greene it is; where planted first it was to grow apace:
And *Vetus* now, who holds thy house, Faire Academic hight,
Spare for no cost, but it maintains and keeps in better plight.
Of late also, fresh fountaines here brake forth out of the ground,
Most wholesome for to bath fore eies, which earst were neuer found.
These helpfull springs, the Soile no doubt, presenting to our view,
To *Cicero* her ancient lord, hath done this honour due;
That since his books throughout the world are read by many a wight;
More waters still may cleare their eyes, and cure decaying sight.

In the same tract of Campaine, and namely toward *Sinuessa*, there be other fountaines called L *Sinuessan* waters, which haue the name not only to cure men of lunacie and madnes, but also to make barrain women fruitfull and apt to conceiue. In the Island *Enaria* there is a spring which helpeth those that be troubled with the stone and grauell: like as another water which they call *Acidula*, within 4 miles of *Teantum* in the *Sidicins* country, and the same is actually cold: also there is another of that kind about *Stabij*, called by the name of *Dimidia*: like as in the territory of *Venafrum*, that which proceeded from the source *Acidulus*, and gaue name to the foresaid water *Acidula*. The same effect they find who drink of the lake *Velinus*, for it breakes the stone. Moreouer, *M. Varro* maketh mention of such another fountain in *Syria*, at the foot of the moun- taine *Taurus*. So doth *Callimachus* report the foresaid operation of the river *Gallus* in *Phrygia*: howbeit they that take of this water must keep a measure, for otherwise it distraets their vnder- standing, & driues them besides their right wits: which accident hapneth to those (saith *Ctesias*) who drink of the red fountain (for so it is called) in *Æthiopia*: as touching the waters neer Rome called *Albulæ*, they are known to heale wounds: these waters are neither hot nor cold; but those which go vnder the name of *Cutiliæ* in the *Sabins* country, are exceeding cold, & by a certain M mor-

A mordication that they haue, seem to suck out the humors & superfluous excrements of the bo- dy; being otherwise most agreeable for the stomacke, sinewes, and generally for all parts. There is a fountain at *Thespia*, a city in *Boeotia*, which doth great pleasure to women that would faine haue children; for no sooner drinke they of the water, but they are ready to conceiue: and of this propertie is the river *Elatus* in *Arcadia*. In which region also the Spring *Linus* yeeldeth water, which if a woman with child do drink, she shall go out her full time & not be in danger to slip an vnperfect birth. Contrariwise, the river *Aphrodisium* in *Pyrhæa*, causeth barrenesse. The lake or meere * *Alphion* is medicinable, and cures the foule Morpew. *Varro* mine author makes mention of one *Tittius*, a man of good worth and sometime lord *Prætor*, who was to bewraied & painted all ouer his face with spots of Morpew, that he looked like an image made of spot- B ted marble. *Cydnus*, a river of *Cilicia*, hath a vertue to cure the gout; as appeareth by a letter written from *Cassius* the *Parmezian* vnto *M. Antonius*. Contrariwise, the waters about *Troezen* are so bad, that all the inhabitants are thereby subject to the gout and other diseases of the feet. There is a citie in * *Gaulle* named *Tungri*, much renowned for a noble * fountaine, which runneth at many pipes: a smacke it hath resembling the rust of yron, howbeit this taste is not perceiued but at the end & loose only: This water is purgatiue, driues away tertian agues, expels the stone and cureth the Symptomes attending thereupon: Set this water ouer the fire or neare to it, you shall see it thick and troubled, but at the last, it looketh red: Between *Puteoli* and *Naples*, there be certain wels called *Leucogæi*, the water wherof cureth the infirmities of the eies, and healeth wounds. *Cicero* in his booke entituled *Admiranda*, i. Wonders, among other admirable things C bath ranged the moores or fens of *Reate*, for that the water issuing from them, hath naturally a propertie from all others, to harden the houses of horses feet. *Eudicus* reporteth, That in the ter- ritorie of *Hestiaz*, a citie in *Thessalie*, there be two springs, the one named *Ceron*, of which, as many sheepe as drinke, proue black: the other *Melas*, the water wherof, maketh black sheepe turn white: let them drink of both waters mingled together, they will proue flecked and of diues co- lours. *Theophrastus* writeth, That the river *Crathis* in the *Thurians* countrie, causeth both kine and sheepe as many as drink thereof, to looke white: whereas the water of *Sybaris* giueth them a black hew. And by his saying, this difference in operation is seene also vpon the people that vse to drink of them: for as many as take to the river *Sybaris*, become blacker, harder, and withall of a more curled hair than others: contrariwise, the drinking of *Crathis* causeth them to look white D to be more soft skinned, & their bush of haire to grow at length. Semblably in *Macedonia* they that would haue any cattell to grow white, bring them to drinke at *Aliacmon* the river: but as many as desire they should be brown or black, drue them to water at *Axius*. The same *Theophras- tus* hath left in writing, That in some places there is no other thing bred or growing but brown and dusky, in so much as not only the cattell is all of that hew, but also the corne on the ground, & other fruits of the earth; as among the *Messapians*. Also, at *Lusa*, a city of *Arcadia*, there is a certain wel, wherein there keep ordinarily land-mice. As for the river *Aleos*, which passes through *Erythræ*, it makes them to grow hairie all their bodies ouer as many as drink thereof. In *Boeotia* likewise, near to the temple of the god *Trophonius* & hard by the river *Orchomenus*, there be two fountains, the one helps memory, the other causeth obliuion, wherupon they * took their names. E In *Cilicia*, hard at the town *Crescum*, there runs a river called * *Nus*: & by the saying of *M. Var- ro*, whoeuer drink thereof, shall find their wits more quicke, and themselves of better conceit than before. But in the Isle * *Chios* there is a spring, which causeth as many as vse the water to be dull and heauie of spirit. At *Zama* in *Africk*, the water of a certain fountain, makes a cleare & shrill voice. Let a man drink of the lake *Clitorius*, he shall take a misliking and loathing of wine, saith *M. Varro*. And yet *Eudoxus* & *Theopompus* report, That the water of the fountains be- foresaid make them drunk that vse it. *Mutianus* affirmes, That out of the fountain vnder the tem- ple of father *Bacchus*, within the Isle * *Andros*, at certaine times of the yere for 7 daies together, there runneth nothing but wine, in so much as they call it the wine of god *Bacchus*: howbeit, re- moue the said water out of the prospect and view (as it were) of the said temple, the tast wil turn F to be waterish again. *Polyclitus* writeth of a certaine fountaine of *Cillicia* neere vnto the citie *Soli*, which yeeldeth an vnction or oleus water, that serueth in stead of oile. *Theophrastus* re- ports the same of another fountain in *Æthiopia*, which hath the like quality. And *Lycus* saith, That among the *Indians* there is a fountain, the water wherof is vsed in lampes to maintaine light. And the like is reported of another water about *Ecbatane* [the capitall citie of *Media*.]

Theopompus

* Otherwise called *Aniger*: but this name itooke of *Al- phi*, which signifieth a kind of white morepew.
* He meaneth the Low- countries, cal- led sometime *Belgica Gallia*.
* Called now the bath of *Spagor* or *Spaw*.
* For the for- mer is called *phos*, or *phos- phos*, the later *phos*.
* *Quasi* sit, wit and vnderstan- ding.
* In *Chios*.

Theopompus writeth, That neere to Scorusa [in Macedonie] there is a lake, the water whereof is so-
 ueraign for the healing of wounds. Moreouer, king *Iuba* hath left in writing, That in the Troglo-
 ueraign country there is a lake, for the hurtful water that it beareth, called the Mad lake, which
 dures country there is a lake, for the hurtful water that it beareth, called the Mad lake, which
 thrice a day becommeth bitter and salt; and as many times for it turneth to be fresh and sweet:
 which course it keeps also in the night season, breeding otherwise white serpents twenty cubits
 long, of which it is crawling full. The same Prince (mine author) reports, That in Arabia there
 is a spring boiling out of the ground with such a force, that it scorneth and checketh any thing
 that is throwne into it, and cannot be kept downe with any weight whatsoever. *Theophrastus* ma-
 keth mention of the fountain Marfyas in Phrygia, neere vnto the town Celæna, which casteth
 vp great stones. And not farre from it be two other springs *Clæon and Gelon, so called by the
 Greeks for the contrary effects which they worke. At Cizicum there is a fountain of *Cupid*, and H
 whosoever drinke of the water thereof, shall lay aside and forget all affection of loue, as *Muti-*
anus doth both report and beleue. At Cranon there is a hot spring, and yet not so boyling as
 many others be: the water thereof, if it be put into a bottle or flaggon of wine, will maintain the
 heat thereof for three daies together, that it shall drinke hot. In Germany beyond the riuier
 Rhene, there be waters so hot, that whosoever drinketh thereof, shall sensibly find the heat in his
 body 3 daies after: The springs that yeeld this water be called *Mattiaci*. This peculiar property
 besides hath this water, that about the edges and brims thereof there engender pumish stones.
 Now if any man suppose some of these strange reports to be incredible, let him learne & know,
 that in no part of the world Nature hath shewed more admirable works than in this element of
 Water. And albeit in the beginning of this mine historie I haue written in ample manner of
 many a wonder obserued in the waters, yet somewhat remaineth still to be related. For *Ctesias*
 saith, That the Indians haue a lake or poole, wherein nothing will swim, but all sinks to the bot-
 tome. And *Calius* also our countryman auoucheth, That the leaues which fall into the lake A-
 vernus will settle downward and not flote aboue: And *Varro* auoucheth moreouer, That what
 birds soeuer flie ouer it, or approach the aire and breath thereof, they will die presently. Contra-
 riwise, in Apuscidamus a lake of Affrick, nothing goes down, but all swims aloft. The like doth
Appion report of Phinthia, a fountain in Sicilie: as also of a lake in Media, and namely the pit or
 well of *Saturne*. The fountain *Limyra* is wont ordinarily to change his seat, and to passe into
 places adioyning, but neuer for nought, prefaging alwaies thereby some strange accident to en-
 sue. And wonderfull it is, that the fishes therein should follow and do the like. Now when this K
 water is thus removed, the inhabitants of the country, desirous to know the issue of things to
 come, repaire thither as to an Oracle, and seek to be resolved by the foresaid fishes, and therewith
 offer to them some meate if they come vnto it and swim away with all, it is a good token, & this
 they take for an affirmatiue answer, as if they said, Yea, to their demands: but in case they refuse
 the meat and flit it away with their tailed, they collect the contrary, and this is their flat nay.
 There is a riuier in Bithynia called *Olachas*, running close to *Briazus* (which is the name both
 of a temple, and also of the god therein honoured) the water whereof will discouer and detect a
 perjured person: for if he that drinketh thereof, feele (as it were) a burning fire within his body,
 take him for a false forsworne villaine. Furthermore, in Cantabria or Biscay the fountains of the
 riuier *Tamaricus*, are endued with a secret vertue to preface and foretell future euents: and three L
 heads or sources there be of them, eight foot distant one from another: they meet all at length
 in one channell, and maintaine the great and mighty riuier *Tamaricus*. Howbeit, twelue times
 euery day, yea and otherwhiles twenty times they are dry, and haue no shew at all or appearance
 of water, notwithstanding there be another fountain or well neere to them, that yeeldeth plenty
 of water, notwithstanding there be another fountain or well neere to them, that yeeldeth plenty
 of water, and neuer giueth ouer running. And this is held for an ominous and fearefull preface,
 if when folke are desirous to see them, they seeme not to run at all: as it was scene of late daies
 by *Lartius Licinius*, sometime lord Pretour and afterwards Lieutenant Generall vnder the Con-
 suls. For within a feuen-night after, a great misfortune happened vnto him. In Iurie there is a
 riuier which euery Sabbath day is dry. Thus much of waters medicinable and miraculous, and
 yet not simply hurtfull. Contrariwise, there be others of as wonderfull a nature, but dangerous M
 they are and deadly withall.

Ctesias writeth, That there is a fountain in Armenia, breeding and bringing forth black Fi-
 shes: wherupon, as many as feed, are sure to die for it immediatly. I haue heard the like reported
 of such dangerous fishes about the head of the riuier *Danubius*, vntill a man come to a foun-
 taine

rairie which presently discharge it selfe into the channell of the said riuier: for beneath that
 place such fishes go not, nor enter lower into the riuier. And hereupon the fountain is by the
 generall voice of people taken to be the very source and head of *Danubius* afore said. The selfe-
 same accident as touching fish, is reported by a poole in Lydia, called the poole of the nymphs.
 In Arcadia neere vnto the riuier *Pheneus*, there floweth a water out the rockes called *Styx*,
 which is present death to as many as drink thereof, as heretofore I haue shewed: And *Theophras-*
tus saith moreouer, that in this water there be certaine small fishes (a thing that a man shall ne-
 uer see in any other venomous fountains) and those likewise are as deadly as the water. *Theopom-*
pus writeth, That in Thracia there be waters about the place called *Chropfos*, which kill those
 that drinke thereof. And *Lycus* maketh report of another fountain in the *Leontines* country;
 wherof as many as drink die within three daies. *Varro* hath left in writing, That neere to the hill
Soraete there is a fountain foure foot large, which at the rising of the Sunne ouerfloweth like
 boyling water: but the birds that haue tasted of the water die presently, and are there to be seen
 lying dead. For this secret mischief, there is besides in many of these waters, that they are faire
 and cleare to see to, and thereby seeme to allure both man and beast to drinke thereof, for their
 owne bane and destruction: as we may see by *Nonacris* in Arcadia, for surely this fountain gi-
 ueth no suspicion at all, wherby we should mistrust a venomous quality, and yet some are of opi-
 nion, That the hurt which commeth thereby, proceedeth from excessive cold; and they ground
 their reason vpon this, That the water issuing out of it into riuers and rills, will congeale and
 grow to a stony substance. It saith otherwise about the vale of *Tempe* in Thessalie, where the
 water of a certaine fountain is fearfull to see to, and there is no man but abhorreth the sight
 thereof, besides the corrosiue quality that (by folks saying) it hath, to fret and eat into brasie, and
 yron: the best is, that (as I haue shewed before) it runneth not farre, and the course that it holdes
 is but short. But wonderfull it is, that a certaine wild Carob should enuiron this source round
 about with his roots, and the same continually beare purple flours, as it is reported to do. Also,
 in the very brinke and edge of this fountain there is another herbe of a kind by it selfe, which
 abideth fresh and Greene from one end of the yeare to another. In Macedonie, not far from the
 tombe of *Euripides* the Poet, there be two riuers run together, the one yeelds water most whole-
 some for to be drunke: the other is as noisome and deadly. Neere to *Perperena*, a towne in *Tro-*
as, there is a spring the water whereof giueth a stonie coat or crust to all the earth that it either
 ouerfloweth or runneth by: of which nature are the hot waters issuing out of a fountain neare
Delium in Euboea, for look what way soeuer the riuier runs, you shall see the stones to grow still
 in height. About *Eurymena*, which is in Thessalie, there is a well, cast into it any chaplets or
 gairlands of floures, they will turne to stones. There runneth a riuier by *Colossi*, a city in *Phry-*
gia, into which if you throw bricks or tiles that be raw and vnbacked, you shall take them forth
 againe as hard as stones. Within the mines of the Isle *Scyros* there is a riuier, which conuerteth
 into stone all the trees that it runneth by or toucheth, as well the boughs as the bodies. In the
 famous and renowned caues called *Corycia*, all the drops of water that distill from the rocke;
 turne to be as hard as stones: and no maruell, for at *Meza* in Macedonie, a man shall see the
 drops of water become stone, as they hang to the very vaults of the rocke, much like to yfickles
 from the caues of houses in Winter time: whereas at *Corycum* abouenamed, the said drops turn
 into stone when they are fallen downe, and not before. In certain caues they are to be seen con-
 uerted into stones both waies, and some of them are so big, as they serue to make columnes and
 pilastres of, and those otherwhiles of diuers colours to the eye: as may be seen in the great caue
 of *Phausia*, which is within the Chersonese of the *Rhodians*. Thus much may suffice by way of
 examples, to shew the varietie of waters, with their sundry vertues and operations.

CHAP. III.

¶ The qualitie that is in waters. How a man may know which be good and wholesome
 from such as be naught and vnwholesome.

Much question there is & controuersie among physicians, What kind of water is best; and
 yet with one generall consent they condemne, and that iustly, all dead and standing wa-
 ters; supposing those that run to be better: for it standeth with good reason, that the very
 agitation and beating vpon the banks as they beare streame in their current, maketh them more
 subtiler.

Rain water.

subtile, pure, and cleare, and by that meanes they get their goodnesse. Which considered, I G
maruaile very much at those who make most account of the * water gathered and kept in ce-
sternes: But they ground their opinion vpon this reason, because raine water is of all others
lightest, as consisting of that substance which was able to rise and mount vp aloft, and there to
hang aboue in the aire. Which is the cause also, that they preferre Snow water before that
hang aboue in the aire. Which is the cause also, that they preferre Snow water before that
which commeth downe in shoures: and the water of yce dissolued, before the other of melted
Snow; as if the water were by yce driuen together and reduced to the vtmost point of finenesse.
They collect hereby, that these waters, to wit, raine, snow, and yce, bee all of them lighter than
those that spring out of the earth: and yce among the rest farre lighter than any water, in pro-
portion. But this opinion of theirs is to bee reputed as erroneous, and for the common good
and profit of mankind to be refuted: For first and formost, that leuitie whereof they spake, can
hardly and vnnearth bee found and knowne by any other meanes than by the sence and feeling
of the stomacke: for if you goe to the weighing of waters, you shall perceiue little or no diffe-
rence at all in their poise. Neither is it a sufficient argument to prouoe raine water to be light,
because it ascendeth on high into the aire, for wee may see stones likewise drawne vp into the
clouds: and besides, as the raine falleth downe againe, it cannot chuse but be infected with the
grosse vapours of the earth. Whereby it commeth to passe, that wee find raine water ordina-
rily to bee most charged and corrupted with ordure and filthinesse: and by reason thereof it
heateth most quickly and corrupteth soonest. As for snow and yce, that they should bee
thought to be composed of the subtile parts of this Element, and yeeld the finest water,
I wonder much, considering the neare affinitie which is betweene them and haile, which might
induce vs also to thinke the same of it: but all men confesse and hold, that the same is most
infertile and pernicious for to bee drunke. Moreover, there are amongst them not a few, who
contrary vnto the opinion of other Physicians their fellows, affirme flatly and confidently
the water of snow and yce to bee the vnwholesome drinke that is, for that all the puritie and
finenesse thereof hath bene drawne and sucked out. And in very truth, wee find it by ex-
perience, that any liquor whatsoever doth diminish and consume greatly by beeing fro-
zen and congealed into an yce. Wee see besides, That ouer-grosse and foggie dewes breed
a kinde of scurfe or scab in plants: white frosts burne and sendge them: and both of these, the
hore frost as well as the dew, proceed from the same causes in a manner that snowes doe.
Certes, all Philosophers agree in this one point, That raine water putrifeth soonest of any
other, and least while continueth good in a ship, as saylers know full well. Howbeit, *Epige-
nes* auoucheth and affirmeth, That the water which hath bene seuen times putrified and as
often purified againe, is subiect no more vnto putrification. And as for cesterne waters, the
Physicians also themselves confesse, That they breed obstructions and schirrhosities in the
bellie, yea, and otherwise be hurtfull to the throat. As also, that there is not any kinde of wa-
ter whatsoever, which gathereth more mud or engendreth more filthie and illfaunoured ver-
mine than it doth. Neither followeth it by and by, that all great riuers indifferently are
the best: no more than those of any brooke, or the most part of ponds and pooles are to
bee counted and esteemed most wholesome. But of these kinds of water wee must conclude
and resolue with making distinction, namely, That there be of euery sort thereof those which
are singular and very convenient, howbeit, more in one place than in another. The kings and
princes of Persia bee serued with no other water for their drinke but from the two riuers, Cho-
aspes and Eulæus onely: And looke how farre soeuer they make their progresse or voyage
from them two riuers, yet the water thereof they carry with them. And what might the rea-
son be therefore? Certes, it is not because they be riuers which yeeld this water, that they like
the drinke to well: for neither out of the two famous riuers, Tygris and Euphrates, nor yet
out of many other faire and commodious running streames doe they drinke. Moreover,
when you see or perceiue any riuier to gather abundance of mud and filth, wote well, that ordi-
narily the water therof is not good nor wholesome: and yet if the same riuier or running streame
bee giuen to breed great store of yeeles, the water is counted thereby wholesome and good
ynough. And as this is a token of the goodnesse, so the wormes called * *Tineæ*, engendered
about the head or spring of any riuier, is as great a signe of coldnesse. Bitter waters of all o-
thers bee most condemned: like as those also which soone follow the spade in digging, and
by reason that they lyesobbe, quickly fill the pit. And such be the waters commonly about

* Which some
take for Sows.

Trozen.

A Troezen. As for the nitrous, brackish, and * salt waters found among the deserts, such as trauell
through those parts toward the red sea, haue a deuise to make them sweet and potable within
two houres, by putting parched barley meale into them; and as they drinke the water, so when
they haue done they feed vpon the said barley grots, as a good and wholsom gruel. Those spring
waters are principally condemned, which gather much mud and fettle grosse in the bottome:
those also which cause them to haue an ill colour who vse to drinke thereof. It skilleth also very
much to mark if a water staine any vessels with a kinde of greene rust; if it be long before pulse
will be sodden therein; if being poured vpon the ground, it be not quickly sucked in and drunk
vp, and lastly, if it fur those vessels with a thicke rust wherein it vseth to be boiled: for all these
be signes of bad water.ouer and besides, it is a fault in water, not only to stink, but also to haue
C any smack or tast at all, yea though the same be pleasant and sweet enough, and inclining much
to the rellice of milk, as many times it doth in diuers places. In one word, would you know a
good and wholsome water indeed? Chuse that which in all points resembleth the aire as neere
as is possible. At Cabura in Mesopotamia there is a fountaine of water which hath a sweet and
redolent smel: setting it aside, I know not any one of that qualitie in the whole world againe:
but hereto there belongs a tale, namely that this spring was priuiledged with this extraordinary
gift, because queen *Inno* (forsooth) sometimes bathed and washed her selfe therein: for other-
wise, good and wholesome water ought to haue neither tast nor odor at all. Some there be who
iudge of their wholsomnesse by their ballance, and they keep a weighing and poising of waters
one against another: but for all their curiositie they misse of their purpose in the end; for sel-
dom or neuer can they find one water lighter than another. Yet this deuise is better and more
certain, namely, to take two waters that be of equal measure and weight: for looke whether of
them heateth and coolerth sooner, the same is alwaies the better. And for to make a trial herof,
lade vp some seething water in a pale or such like vessel, & set the same down vpon the ground
out of your hand, to ease your arm of holding it hanging long in the aire; and if it be good wa-
ter, they say it will immediatly of scalding hot become warm and no more. Well, what waters
then, according to their sundry kindes in generalitie, shall we take by all likelihood to be best?
If we go by the inhabitants of cities and great towns, surely, wel-water or pit water (I see) is sim-
ply the wholsomest. But then such wells or pits must be much frequented, that by the continual
agitation and often drawing thereof, the water may be more purified, and the terren substance
D passe away the better by that means. And thus much may suffice for the goodnesse of water re-
spectiue to the health of mans body.

But if we haue regard to the coldnesse of water, necessarie it is that the Wel should stand in
some coole and shadowie place not exposed to the Sun, and nathelittle open to the broad aire,
that it may haue the full view and sight (as it were) of the sky. And aboue all this, one thing
would be obserued and seen vnto, that the source which feedeth it spring and boile vp directly
from the bottom, and not issue out of the sides: which also is a main point that concerns the per-
petuitie thereof, and whereby we may collect that it will hold stil, and be neuer drawn dry. And
this is to be vnderstood of water cold in the owne nature. For to make it seem actually cold to
the hand; is a thing that may be done by art, if either it be forced to mount aloft, or fall from on
E high, by which motion and reuerberation it gathers store of aire. And verily the experiment
hereof is seene in swimming; for let a man hold his winde in, he shall feele the water colder by
that means. *Nero* the Emperor deuised to boile water, & when it was taken from the fire to put
it into a glasse bottle, and so to set it in the snow a cooling; and verily the water became thereby
exceeding cold to please and content his tast, and yet did not participate the grossnesse of the
snow, nor draw any euill qualitie out of it. Certes, all men are of one opinion, that any water
which hath been once sodden, is far better than that which is still raw. Like as, that after it hath
been made hot, it will become much colder than it was before, which I assure you came first
from a most subtil and witty inuention. And therefore if we must needs occupy naughty water,
the only remedy that we haue to alter the badnesse thereof, is to seeth it wel vntil the one halfe
F be consumed. Now if a man desire to know the vertue and commoditie of cold water: first, it or-
dinarily stancheth any flux of blood, if it be cast vpon the place. Also if one be not able to en-
dure the heate in a bain or hot-house, the best way to auoid this inconuenience, is to hold in his
mouth cold Water all the while. Moreover, many a man hath found by a verie familiar expe-
rience,

* *Salsus*, al-
though some
reade *Salmac-*
das, which be
holden for wa-
ters that will
effeminate the
that drinke
thereof. But
such waters be
impertinent to
this place: ac-
ther doe we
reade of the
fountain *Sal-*
matis to be in
this desert.

rience, that the coldest water in the mouth is not alwaies the coldest in the hand. And contrari-
wise, when it is exceeding cold without to be felt, it is not so sensibly cold within to be drunk.

Of all Waters in the world, that which wee call here in Rome Martia, carrieth the greatest name by the generall voice of the whole City, in regard both of coldnesse and wholesomnesse. And verily we may esteeme this water for one of the greatest gifts that the gods haue bestowed vpon our city. In times past it was called Aufeia, and the very fountaine from whence it cometh, Piconia. The head or source thereof ariseth at the foot of the vniuersall mountains of the Pelignians: it runneth through the Marsians country, and passing through the lake Fucinus, it tendeth no doubt euen then directly toward Rome; but anon it is swallowed vp within a hole vnder the ground, so as it is no more seen vntill it shew it selfe again in the territorie of the Tiburtines; from which place it is conueyed vnder vaults, and so carried through to Rome by arch-works for the space of nine miles. The first that began to bring this water to the city, was

* No manuell
then if it were
called Martia.

Ancus * Martius one of the Roman Kings. Afterwards Qu. * Martius Rex, in his Pretorship finished the said worke: and when in processe of time it was fallen to decay, M. Agrippa repaired it againe: who also brought the water named Virgo to the city, which hath her head eight miles from Rome, in a certaine nouke or by-corner about two miles turning from the great port way leading to Præneste. Neere vnto it runneth the riuer Herculeus: but this water keepeth still behinde, as though it fled from it, whereupon it tooke the name Virgo. Compare these two ri- uers together which are conueyed to Rome, you shall see the difference before said as touching the coldnesse of waters; for looke how cold Virgo is to the hand, so much is Martia in the mouth. But long ago haue we of Rome lost the pleasure and commoditie of these two Rills, through the ambition and auarice of some great men, who haue turned away these waters from the City, where they yeelded a publike benefit to the Commonwealth; and deriued them for their priuat delight and profit, into their owne mannors and houses in the country, for to water their gardens, and serue to other vses.

And here in this place I thinke it not impertinent to adioine to this present treatise, the man- ner and skill of searching and finding out waters. And first to speake in general terms: springs ordinarily be found in Vallies, in the pitch or crest of some little hill where it hath a fall and descent, or else at the foot of great mountaines. Many are of opinion, That in any tract what- soeuer, that side or coast which regardeth the North is giuen to haue water in it. And verily it were not amisse to shew how Nature disposeth her selfe and worketh variably in this be- halfe. First, a man shall neuer see it raine on the South side of the mountaines in Hyrcania, which is the reason, that on that part onely which lieth to the North they are giuen to beare wood, and be full of forests. But Olympus, Ossa, Parnassus, Apenninus, and the Alpes, be re- plenished with Woods on all sides, and are furnished with their Springs and Rivers euerie where. In some countries the hills be Greene, and watered on the South side onely. As for ex- ample in Candy, the mountaines called * Albi: so that there is no heed to be taken by this, for the rule holdeth not alwayes. But to come now vnto particulars: Looke where you see grow- ing Rushes, Reeds, or the * Herbe whereof I made relation before, be sure you shall find water vnderneath. Item, Where soeuer you finde Froggs lying in any place vpon their backs; make account of good store of water there. As for the wilde and wandering Sallow, the Aller tree, Agnus-Castus, or Yvie, they come vp many times of their owne accords, in some low grounds where there is a settling or stay of raine water fallen from higher places: in so much as they that goe by these signes to finde some Spring may soone be deceived. A surer signe yet by farre, is a mist or exhalation, which a man may discouer a farre off a little before the Sunne ris- ing. And for to espie it the better, some there be who get vp into an high place, and lay them- selues grouel long with their chinnes touching the ground; and by that meanes discerneth where any such smoke or vapor doth arise. There is also another speciall means besides to find out Waters, but knowne it is vnto those onely who be skillfull and expert in this feat. For they that are guided by this direction to Water, goe forth in the hottest season of the yeare, and about the noone-tide of the day to marke the reuerberation of the Sunne beames in any place: for if this repercussion and rebounding appeare moist, and namely when the face of the earth looketh dry and thirstie, they then make no doubt but to finde Water there. But they had need to looke so intently and earnestly, that oftentimes their eyes ake

* Aukerjades,
i White.

* To wit, wild
Folefoot, ca. 6.
lib. 26.

and be pained withall. For auoiding which trouble and inconuenience, some betake themselves to other experiments, and namely, they dig a trench or ditch fise foot deep within the ground; the mouth whereof they couer all ouer with earthen vessels of potters worke vnbacked, or els with a barbars brazen bason well enuailed; and withall a lamp burning: ouer all which, they make a little arch-work of leaues and boughs, and mould thereupon. Now if they come within a while after to this place, and either see the earthen pots broken or wet, or perceiue a dew or sweat stand- ing vpon the brasse, or finde the lamp aforesaid gon out, and yet no want of oile to maintaine light, or if they feele a lock of wool which they hung within the trench to be moist, they assure themselves they shall find water if they sink the pit deeper. Some there be, who for better assur- ance hereof make a fire in the place, and burne it throughly; for then the vessels aforesaid if they proue to be wet, giue a more infallible hope of a spring. Moreover, the very leire it selfe of the soile, if it be spotted with white specks, or be altogether of a reddish bright colour, promi- seth spring water to be vnderneath; for if the ground look black, lightly the water wil soon fail if there be any spring there found. If you chance to light vpon a vein of potters clay or chalk, make account you shall meet with no spring there, sink as deep as you will: and therefore work- men when they come to it giue ouer presently. For a great regard they haue to obserue the change of euery coat (as I may so say) of the earth as they dig, to wit from the black delfe, vntil they meet by degrees with the veins aforesaid. Furthermore it is to be noted, that the water which is found in cley grounds is alwaies sweet and potable: like as that which a stony and gritty soile doth yeeld, is commonly colder than any other: and such a kinde of ground also is allowable for the prooue of good waters; for it ingendreth sweet and wholesome water, light also of digestion, and pure withal, by reason that as it passeth by a soft grit as it were, through a strainer, all the grossenesse thereof it leaueth behind sticking thereto. As for * thicke sand & gra- uell, it affordeth small and slender springs, and those not durable; besides, the water wil quickly gather mud. Ground giuen to beare * pibbles or the grosser sort of grauell, giue vs no security that the springs therein wil hold all the yeare long, howbeit the water is very good & pleasant. The hard and compact grauell called the male grauel, and the land which seemeth full of black and burnt carbuncle stones, bringeth forth wholesome waters, and the sources be sure and perdu- rable. But red stones yeeld the best simply, and those that we may be sure will neuer giue ouer and faile. And therefore when wee shall perceiue the foot of a mountaine standing vpon such stone, or vpon flint, wee may boldly reckon of wholesome and euerlasting springs; and this gift they haue beside, to be passing cold. Moreover, in digging and sinking pits, marke this for an assured and infallible signe that you approach vnto water, namely, if the earth appeare and shew moist more and more, still as you go lower and lower: also if the spade enter more willingly, and goe downe with ease and facilitie. When pioners haue wrought deepe vnder the ground, and then chance to meet with a veine of brimstone or alume, the dampewill stop their breath and kill them presently, if they take not the better heed: and therefore to foresee and preuent this danger, they vse to let downe into the pit a candle or lampe burning; for if it goe out, they may be sure it hath met with the dampe. Therefore if pits be subiect to the rising of such va- pours, cunning and expert workemen make on either side of such pits, both on the right hand and the left, certaine out-casts, tunnels, or venting holes, to receiue those hurtfull and danger- ous vapours, whereby they may evaporat and breathe forth another way. Otherwhiles it falls out, that the aire which they meet with in digging very low, doth offend the pioners, albeit there be no brimstone nor alume neere: but the ready meanes to amend the same and auoid the danger, is to make winde and fresh aire with continuall agitation of some linnen clothes. Now when the pit is sunke and digged as far as to the water, the bottome must be layd, and the low- est sides of the wall reared of stone simply without any mortar made of [lime and] sand, for feare lest the veins of the source be stopped. Some waters there are, which in the verie prime and beginning of the spring are of this nature, That they grow to be exceeding cold, namely such as haue their source or spring lying but ebb; for they are maintained only of winter rain; Others againe begin to be cold at the rising of the Dog-starre. And verily we may see the ex- perience both of the one and the other about Pella the capitall city of Macedonie: for the wa- ter of the meere or marish there before the towne in the beginning of Summer is cold; and afterward when the weather is at the hottest, the spring water in the higher parts of the Citie is so extreame cold that it is readie to be frozen. The semblable happeneth in Chios, where

N n

there

there is the same reason of the haue and towne it selfe. At Athens, the great and famous fountain named Eneacrunos, in a rainy or stormy summer is colder than the pit water or wel in *Iu-piters* garden, within that city; and yet the said Well water if it be a dry season, will stand with an ice at Midsummer.

CHAP. IV.

¶ The reason of certaine Waters that appeare and be hid againe suddenly.

*.about the beginning of Iune.

BVt about all others, the waters of pits or wels be ordinarily most cold about the * retreat or occultation of *Arcturus*, yea and many times they faile in the mids of summer, and all of them in maner grow very low for the space of foure daies, at the time of the setting of the foresaid star. Many there be which haue little or no water in them all winter long, and namely about the hil *Olympus*, where it is spring first ere the waters return and find the way into their pits. And verily in *Sicilia*, about the cities *Messana* and *Mylæ*, during winter the springs are al- together dry; but in summer time they run ouer the brinks of their Wels and pits, maintaining pretty riuers. At *Apollonia* a city in *Pontus* there is a fen neere the sea side, which in Summer be only overfloweth, and especially about the rising of the great Dog-star, mary if the summer be colder than ordinarie, it is not so free and plentifull of water. Some Springs haue this qualitie with them, to be drier for shoures and raine water: as for example, in the territorie of *Narnia*, a city in the duchy of *Spoleto*, which *M. Cicero* hath not forgot to infer among other admirable things, in his treatise of *Wonders*: for of this territorie hee writeth in these tearmes, That in a drought it was durty, and in rainy weather dusty. Moreover this is to be noted, That all waters are ordinarily more sweet in winter than in summer, but in autumn least of all, and in a dry sea- son lesse than at other times. Neither are the riuer waters most times of like taste, by reason of the great difference that is in their chanel; for commonly the water is such as the earth & soil through which it passeth, and doth participat the qualitie and tast of those herbs always which it passeth and runneth by. No maruell therefore if the water of one and the selfe-same riuer be found in one place more vnholsome and dangerous than in another. It falls out many times, that the brooks and rills which enter into great riuers, do alter their water in the very taste (as we may see by experience in the famous riuer *Borysthenes*) inso much as such great riuers be overcome with the influence of such riuerets, and either their owne taste is delaid by them, or clean drowned and lost. And some riuers there be which change by occasion of rain: the prooue wherof was thrice seen in *Bosphorus*, when by reason of the fall of some salt shoures, the flouds that overflowed the fields destroyed all the corne vpon the ground. The like also fell as often in *Egypt*; for the rain that fel caused all the washes arising from the riuer *Nilus*, which watred the grounds, to be bitter, whereupon ensued a great plague and pestilence to the whole region. It chanceth many times, that presently vpon the cutting and stocking vp of Woods, there arise and spring certaine fountaines which beforetime appeared not, but were spent in the nourish- ment of the tree roots; as it fell out in the mountain *Hæmus*, when as *Cassander* held the * *Gal- logreeks* besieged; for when the woods thereupon were cut down to make a palaisad for a ram- pier, presently there issued forth springs of water in their place. Moreover, it hath bin oft times known, that by occasion of spoiling some hils of the wood growing thereupon, the springs haue met altogether in one streame, and done much hurt in sudden overflowing the vaile beneath; whereas the trees before-time had wont to drink vp, digest, and consume all the moisture & wet that fell and fed the said waters. And verily it auaieth much for the maintenance of water, to stirre with the plough, and to till a ground; thereby to break vp and loose the vppermost callo- sitie and hide (as it were) of the earth, that kept it clunged and bound. Certes it is recorded for a truth, that vpon the raising and destroying of *Arcadia* (a towne so called in *Creet*) wherby the place was dispeopled, all the fountaines waxed dry, and the riuers in that tract (which were ma- bitants fell to earing and ploughing any grounds within their territorie, the foresaid fountaines appeared again, and the riuers returned to their former course.

CHAP.

CHAP. V.

¶ Divers historicall obseruations touching this point.

Moreouer Earthquakes, as they discover sometimes new springs and sources of water, so otherwhiles they swallow them vp that they are no more scene: like as it hapned (as is well knowne) * times about the riuer *Phœnus* in *Arcadia*. And in manner abovesayd, there issued forth a riuer out of the mountains *Corycus*, so soone as the peasants of the coun- try began to break it vp for tillage. But to return again to the change and alteration of waters: wonderfull they mult needs be (no doubt) when there is no euident cause thereof to be knowne: as namely in *Magnesia*, where at the hot waters of the bains suddenly became cold, without any other change besides of the tast (also in *Caria*, where standeth the temple of *Neptune*; the riuer which was knowne before to be fresh and potable, all on a sudden turned into salt water). Quer and besides, is not this a strange miracle, that the fountain *Arcthusa* in *Syracuse*, should haue a sent or smell of dung, during the *Iolenne* games and exercises at *Olympia*? But there is some probable reason to be rendered hereof, because the riuer *Alpheus* passeth from *Olympus* vnder the very bottom of the sea into that Island [of *Sicily*] where *Syracuse* standeth, and so cometh to the foresaid fountain; The *Rhodians* haue a fountain within their * *Chersonese*, which euery ninth yere purgeth it self & sends out an infinit deale of ordure and filthines. And as the tast & smell of waters do alter, so their colours also do change: as for example, there is a lake in the country of *Babylon*, which euery summer for the space of 11 daies, looketh red: and *Borysthenes* also in the summer time runneth with a blewish colour like * violets, or the sky; and yet almost pure and subtil water it is of all other, which is the reason, that it swims aloft and floateth natu- rally vpon *Hypanis* the riuer. In which two riuers, there is another maruell reported, That all the while a Southern wind bloweth, the riuer *Hypanis* is discerned aboue it. But there is one ar- gument more besides, that proueth the water of *Borysthenes* to be passing light & thin; for that there arise no mists out of it, nay it is not perceived to yeeld any exhalation or breath at all from it. To conclude, they that would seem to be curious and skilfull in these matters, do obserue and affirme, That generally all waters grow to be heauier after that mid-winter is once past.

CHAP. VI.

¶ The manner of water-conduits. How and when those waters which naturally are medicinable ought to be used. Also for what diseases it is good to saile and take the aire of the Sea. The vertues and properties of se waters as touching Physicks.

IF a man would convey water from any head of a spring, the best way is to vse pipes of earth made by potters art; and the same ought to be 2 fingers thick, and one jointed within another, so as the end of the vpper pipes enter into the nether, as a tenon into a mortaise, or as a box into the lid: the same ought to be vnited and laid euen, with quicklime quenched and dissolved in oile. The least leuell for to carry and command water vp hill from the receit, is one hundred foot, but if it be conueyed but by one canal and no more, it may be forced to mount the space of two *Agus*, i. 240 foot. As touching the pipes by means whereof the water is to rise aloft, they ought to be of lead. Furthermore, this is to be obserued, That the water ascend alwaies of it self at the deliuerie, to the height of the head from whence it gaue receit: if it bee fetched a long way, the worke must rise and fall often in the carriage thereof, that the leuell may bee maintai- ned still. As for the pipes, ten foot long apiece they would bee, if you do well. Now if the said pipes of lead be but * five fingers in compasse, ordinarily they should weigh sixty pound: * if they be of eight fingers size, they must carry the weight of one hundred pound; but in case they be a round of * 10 fingers, their poise would be at the least 120 pound; and so the rest more or lesse according to this proportion. Those pipes be called properly in Latine *Denaria*, the web or sheet whereof beareth ten fingers in breadth, before it be turned in and brought to the com- passe of a pipe: like as *Quinaria*, when the same is halfe so broad. Moreover, this is to be obser- ued, That in euery turning and twining of an hill, the pipe ought of necessity to be five fingers round and no more, for to repress and breake the violence of the water in the current. Likewise the vaulted heads which receiue and contain water from all the sources meeting together, must

N n 2

*. their demy- island, or rather a place in- uironed round about with sea, save only that it hath one banke or narrow causey leading to the continent.

* *Quinaria*:
* *Omnaria*:
* *Denaria*.

be of that capacity, as need requireth.

And since I am false into the treatise and discourse of fountains, I wonder much at *Homer*, that he hath made no mention at all of hot springs; and yet otherwise throughout his whole poem, hee bringeth in oftentimes those who bathed and washed in hot baines. But it may verie well be, that the reason thereof is, because in those times there was not that use of them in physick as at this present: for now adays, if folk be afflicted with any disease, straightwaies they run to the bath and bath for remedy. And in truth, those waters which stand upon brimstone, be good for the fit news: such as come from a veine of alum, are proper for the palsey, or such like infirmities, proceeding from resolution of the nerues. Moreover, they that hold of bigumen or mire, such as the fountains *Cutilia* be potable and good to be drunke, and yet they are purgative.

To come to the use of natural baines and hot waters: many men in a brauery sit long in a bath, and they take a pride in it, to indure the heat of the water many hours together, and yet is there nothing so hurtfull for the body: for in truth, a man should continue little longer in them than in ordinary artificiall baines or stoups; and then afterwards, when he goeth forth, hee is to wash his body with fresh cold water, not without some oile among. Howbeit, our common people here, thinke this to be very strange, & will not be brought to it, which is the reason, that mens bodies in no place are most subject to diseases: for the strong vapours that steme from thence, stiffe and fill their heads; and although they sweat in one part, yet they chill in another, nor withstanding the rest of their bodies stand deep within the water. Others there are besides, who on the like erroneous conceit, take great joy in drinking a deal of this water, straining away and swolne poure most of it downe the throat. I haue my selfe seen some of them so puffed up, and swolne with drinking, that their very skin couered and hid the rings vpon their fingers; namely, when they were not able to deliuer again the great quantity of water that they had taken in. Therefore this drinking of much water is not good to be vsed, vnles a man do oftentimes eat * salt with all. Great use there is and to good purpose, of the mud which these fountains do yeeld, but with this regard, that when the body is besmeared and bedawbed outwardly therewith, the same may dry vpon it in the Sun.

Well, these hot waters be commonly full of vertue; howbeit, this is not generall, That if a spring be hot, by and by we should thinke it is medicinall, for the experience of the contrary is to be seen in *Egesta* of *Sicily*, in *Larissa*, *Troas*, *Magnesia*, *Melos*, and *Lipara*. Neither is it a sure argument of a medicinall water (as many are of opinion) if a piece of siluer or brasse which hath bin dipped therein, lose the colour: for there is no such matter to be seene by the naturall baths of *Padua*; neither is there perceiued in them any difference in smell from others.

Concerning Sea waters, the same order and mean is to be obserued, especially in such as be made hot, for to help the pains and infirmities of the sinews: and many hold them good to souder fractures of bones, yea and to cure their bruises and contusions; likewise they haue a desiccative vertue, whereby they dry rheumaticke bodies, in which regard, men bath also in sea water actually cold. Moreover, the sea affoordeth other uses in diuers and sundry respects, but principally the aire thereof is wholesome for those who are in a phthisicke or consumption (as I haue before said) and cureth such as doe reach or void blood vward; and verily, I remember of late daies, that *Annius Gallio* after that he was Consul, tooke this course; namely, to saile vpon the sea for this infirmity. What is the cause think ye, that many make voiajes into *Egypt*? surely it is not for the aire of *Egypt* it self, but because they lie long at sea, and be sailing a great while before they come thither. Furthermore, the vomits also which are occasioned at sea by the continual rolling and rocking of the ships neuer standing still, are good for many maladies of head, eies, and breast; and generally they doe cure all those accidents, for which the drinking of *Elleboro* serueth. As for sea water to be applied simply of it selfe vnto the outward parts, physitians are of opinion, that it is more effectual than any other, for to discusse & resolue tumors: & more particularly, if there be a cataplasme made of it and barley meale sodden together, it is singular for the swellings behind the ears, called *Parotides*. They mingle the same likewise in plasters, such especially as be white and emollitiues: and if the head be hurt, and the * brain touched and offended, it is foweraigne to be infused into the wound. It is prescribed also to be drunke: for albeit the stomack take some offence and hurt thereby, yet it purgeth the body well, and doth euacuat melancholick humors and black choler; yea, and if the blood be cluttered within the body, it sendeth it out one way or other, either vward or downeward. Some haue ordained it to

* For to irritate and prouoke the expulsive faculty to send all forth againe.

* *Cerebro* isto.

A be giuen for the quartan feuer; others aduise to saue and keep it a time, for to serue the turne in case of *Tinefines*, which are vnordinat strainings at the stooles to no effect: also for all goutts and pains of joints: and in very truth, by age & long keeping, it forgoeth all that brackish taste, which it had at the first. Some boile it before: but all in generall agree in this, To vse for these purposes that sea water which was taken out of the deep far from the land, such as is not corrupt with any mixture of fresh water with it; and before their patients do drinke it, enioyne them to vomit: and then also do they mingle with it, either vineger or wine for that purpose. They that giue little thereof, and by it selfe, appoint radishes to be eaten presently vpon it, with honied vineger or oxymell, for to prouoke the patient to vomit againe. Moreover, they vse otherwhile to minister a clystere made of sea water, first warmed: & verily there is not a better thing than it for to bath

B and foment the cods withall, if they be swelled either with ventosities or waterish humors. Also it is much commended for kided heels, if they be taken before they are broken and exulcerated: and in like manner they kill the itch, cure scabs, tetter, and ringwormes. Sea water serueth wel to wash the head, & to rid it of nits and filthy lice: yea, and reduceth black and blew marks in the skin, to the fresh and liuely colour againe. In all these cures, after the vse of salt-water, it is passing good to foment the place affected, with vineger hot.ouer and besides, it is thought to be very wholesome and good against the venomous stings of serpents; and namely, of the spiders *Phalangia* and scorpions. Semblably, it cureth those that be infected outwardly with the noysome saluation or spittle of the *Aphis* called *Pryas*; but in these cases it must be taken hot: furthermore, a perfume made with sea-water and vineger, is singular for the head-ach. If it be cly-

C sterized hot, it allaieth the wrings and grindings of the belly; yea, and itaeth the violent morions of cholericke humors working vward and downward. Those that be once chaufed and set into an heat with sea water, shall not so easily feele cold againe. When womens paps are overgrown, and so exceeding great that they meet and kisse one another, there is not a better thing to take them downe, than to bath in a tub of sea-water: the same also may serue to amend the griefe of the bowels and precordiall parts, yea, and to restore those that be exceeding leane and worn away. The fumes and vapors of this water boiling together with vineger, are foweraign for those that be hard of hearing, or troubled with the head-ach. Sea water hath this especiall property, that of all things it scoureth away rust of yron soonest. The scab that annoieth sheepe, it healeth, and maketh their wooll more soft and delicat. But what meane I to say thus much of sea

D water, knowing as I do full well, that for those who dwell far vp into the maine, and inhabit the inland parts, all this may seem needlesse, and superfluous? And yet there hath bin means deuised to make artificiall sea-water, wherewith euery man may serue his own turn when he will. In which inuention, one wonderfull thing is to be seen, namely, if a man put more than one sextar of salt to foure of water, the nature of the water will be so soone overcome, that salt shall not dissolve nor melt therein: but if you mingle one sextar of salt just with foure sextars of water, you shall haue a brine as strong as the saltiest water that is in the sea: but to haue a kind & most mild brine, it is thought sufficient to temper the foresaid measure of water with 8 cyaths of salt: and this water thus proportioned, is very proper for to heat the sinewes, without any fretting of the skin at all. There is a certain compound sea water kept in manner of a Syrrupe, which they call

E *Thalassomeli*, made of Sea-water, hony, and raine water, of each a like quantity. Now the foresaid sea-water they ferch for this purpose out of the very deep, and this composition they put vp in earthen vessels well pitched or varnished, and reserue it for their vse. An excellent purgatiue this is; for besides that it clenseth the stomack without any hurt or offence thereof, the taste and smell both are very pleasant and delectable. As touching the mead called *Hydromell*, it consisted in times past of rain water well purified, and hony: a drink ordained and allowed onely to sick and feeble persons when they called for wine, as being thought lesse hurtfull to be drunke: howbeit, rejected it hath bin these many years, and condemned: for by experience it was found at length, to haue the * same discommodities that wine, but farre short it was of the good and wholesome qualities of wine.

F Moreover, forasmuch as sea-faring men and saylers be many times at a fault for fresh water, and thereby much distressed, I thinke it good to shew the means how to be provided for the supply of this defect. First and foremost therefore, if they spread and display abroad certaine fleeces of wooll round about a ship, the same will receiue and drinke in the vapours of the Sea, and become moist and wet withall; presse or wring them well, you shall haue water fresh enough.

N 3

Item,

* Namely, aduerseto the head & sinews

Item, let downe into the sea within small nets, certain pellets of wax that be hollow, or any other void and empty vessels wel closed & luted, they will gather within them water that is fresh and potable: for we may see the experience hereof vpon the land: take sea-water & let it run through cley, it will become sweet and fresh.

But to proceed vnto the other medicinable properties of water: let there be any dislocation in man or beast, by the swimming in water (it matters not of what kind it be) the bones will very quickly and with great ease be reduced into joint againe.

It falleth out many times that travellers be in feare and danger of some sicknesse, by change of waters, and such especially as they know not the nature and quality of. To preuent this inconvenience, they drink the water cold which they doubt and suspect, so soone as euer they be come out of the baine; for then they shall find it presently.

As touching the mosse which is found in the water, soueraigne it is for the gout, in case it be applied outwardly: mix oile thereto, and reduce it into the forme of a cataplasme or liniment, it easeth the paine, and taketh down the swelling of the feet about the ankles. The mosse & froth that floteth about the water, causeth warts to flie off, if they be well rubbed therewith.

The very sand likewise vpon the sea shore, especially that which is small and fine, & the same burnt as it were with the heat of the Sun, is a soueraigne remedy to dry vp the watery humors a dropsie, if the body be couered al ouer therewith; and to that purpose it serueth also for rheums and catarrhs. Thus much may suffice concerning water it self: it remaineth now to treat of such things as the water yeeldeth. In which discourse, begin I wil (as my order and manner hath bin in all the rest) with those matters which be chiefe and principall, and namely, salt and spunges.

CHAP. VII.

¶ The sundry kinds of salt: the making thereof: the vertues medicinable of salt: and diuers other considerations respectiue thereto.

SALT is either artificiall or naturall: and both the one and the other is to be considered in many and diuers sorts, which may be reduced all into 2 causes: for salt commeth either of an humor congealed, or els dried. In the gulfes or lake of Tarentum, the salt is made of the sea water dried by the heat of the summer Sun; for then you shall see the whole poole converted into a masse of salt: and verily the water there, is otherwise very low & ebbe, and not about knee high. The like is to be seen in Sicily within a lake called Cocanicus; as also in another neare to Gelas: but in these, the brims & sides only about the banks, wax dry and turn into salt, like as in the salt-pits about Phrygia and Cappadocia. But at Aspenchum, there is more plenty of salt gathered within the poole there, for you shall haue the same turn into salt, euen the one halfe to the very mids. In which lake, there is one strange and wonderful thing besides, for look how much salt a man taketh out of it in the day, so much ordinarily will gather againe by night. All the salt of this sort is small, and not growne together in lumps. Now there is another kinde of salt, which of the owne accord commeth of sea-water, and it is no more but the some or froth which is left behind sticking to the edges of the banks, or to rocks. Both the one & the other become thick and hard in manner and form of a candied dew: howbeit, that which is found in the rocks, is more quicke and biting than the other. There is besides of salt naturall, a third distinct fort from the former: for in the Baſtrians country there be two great and huge lakes, which naturally do cast vp a mighty quantity of salt: the one lieth toward the Scythians, and the other bendeth to the Arians country: like as neere to Citium, a city in the Isle Cypros, and about Memphis in Egypt, they draw forth salt out of lakes, and afterwards dry the same in the sun. Moreover, there be certain riuers which beare salt, and the same congealed aloft in their vpper part, in manner of yce, and yet the water runneth vnderneath and keepeth the course wel enough. As for example, about the fluces and straits of the mount Caspius; and thereupon they be called the Riuers of salt: as also in other riuers of Armenia, and about the Mardians country. Moreover, Oxus and Orthus, two riuers passing through the region Baſtriana, carry ordinarily downe with them in their streame, great peeces and fragments of salt, which fall from the mountaines adjoining vnto them. There are besides in Barbary, other lakes, and those verily thicke and troubled, of which ingender and beare salt. But what will you say, if there bee certaine Fountaines of hote Waters which breed Salt? And yet such bee the Baynes or Springs called Pagafai.

Thus

A Thus far forth haue I proceeded in those kinds of salt which come of waters naturally. There are besides certain hills also which are giuen by nature to bring forth salt, and such is the mountain Oromenus among the Indians, wherein they vse to hew salt as out of a quarry of stone, and yet the same groweth still: in so much, as the kings of that country make a greater reuenue by far out of it, than either by their mines of gold, or the pearles which those coasts do yeeld. Furthermore it is euident, that in Cappadocia there is salt * Minerall, digged out of the earth: and it appeareth plainly, that it is a salt humor congealed within. And verily, they vse to cut it out of the ground after the maner of * glasse stone in lumps: and those exceeding heauy, which the peasants commonly call * crums of salt. At Carrihae, a city of Arabia, all the walls thereof, as also the houses of the inhabitants, be reared & built of hard stones: and the same be laid by Masons worke, and the joints closed and sodered by no other mortar but plain water. K. *Protopolus*, at what time as he incamped about Pelusium, a city of Egypt, and cast vp a trench to fortifie the same, found such a mine or quarry of salt as these, which was a president to others afterward to sinke pits betwene Egypt and Arabia, euen in the waste and dry quarters, where vnder the delfe of sand they met with salt. After which manner also they practised to dig in the desert & dry sands of Africk, and found more as they went, euen as far as to the Temple and Oracle of *Iupiter Ammon*. And verily they might perceiue this salt to grow in the night season, according to the course of the Moone. As for all the tract and country of Cyrenæ, famous it is, and much spoken of, for the salt * Ammoniacum, so called, by reason that it is found vnder the sands. In colour and lustre it resembleth that Alumē de Plume, which the Greeks call *Schistos*: It groweth

* Sal Gemma.

* Lapis speculatus, vitrum vel glacies Martis or Lapis Arabicus.

* Micas Salis.

* Of Aquas in Greece, which is found.

C in long lumps or peeces, and those not transparent: the taste is vnpleasant, howbeit, this salt is of good vse in Physicke. The clearest thereof is taken for the best, especially when it will cleaue directly into streight flakes. A strange and wonderfull nature it hath if it be right: for so long as it lyeth vnder ground within the mine, it is passing light in hand, and may be easily welded; take it forth once, and lay it abroad about ground, a man would not beleue or imagine how exceeding heauy it is. But surely the reason thereof is euident: for the moist vapors contained within those mines where it lieth, beare vp the said peeces of salt, and are a great ease to those that deale therewith, much like as the water helpeth much to the stirring and managing of any thing within it, be it neuer so weighty. Well, this Ammoniacke salt is corrupted and sophisticate, as well with the pit-salt of Sicily called *Cocanicus*, as also with that of Cypresse, which is wonderfull like vnto it. Moreover, neare Egelasta, a city in high Spaine, there is a kind of sal-gem or Minerall salt digged: the peeces or lumps wherof are so cleare, as a man may in a manner see through them: and this hath of long time bin in great request and of such name, as the Physitians giue vnto it the price and praise about all other kinds. But here is to be noted, that all places where salt is found, are euer barren, and will beare no good thing els. And thus much may bee said concerning salt that commeth of the owne accord.

E As touching salt artificiall, made by mans hand, there be many kinds thereof. Our common salt, and whereof we haue greatest store, is wrought in this manner: first they let into their pits a quantity of sea-water, suffering fresh water to run into it by certain gutters, for to bee mingled therewith for to help it to congeale, whereto a good shower of raine auailleth very much, but about the Sun shining thereupon, for otherwise it will neuer dry & harden. About Vtica in Barbary they vse to pile vp great heaps of salt in manner of Mounts: which after that they bee hardened and seasoned in the Sun and Moone, scorne all raine and foule weather, neither will they dissolve, in so much, as folke haue enough to doe for to break and enter in with pick-axes. Howbeit, in Candy the Salt is made in the like pits, but of Sea-water onely, without letting in any fresh water at all. Semblably, in Egypt, the Sea it selfe ouerfloweth the ground which (as I take it) is already soked and drenched with the water of Nilus, and by that means their Salt is made. After the same manner they make salt also out of certain welles, which are discharged into their salt-pits. And verily in Babylon, the first gathering or thickening of the water in their salt-pits, is a certain liquid Bitumen or Petroleum, an oleous substance, which they vse in their lamps, as

F we do oile: and when the same is scummed off, they find pure salt vnderneath. Likewise in Cappadocia they do conuey and let in water out of certain welles and fountaines into their salt-pits. In Chaonia there be certaine * Springs of saltish water, which the people of that country doe boile, and when it is cooled againe, it turneth into Salt: but it is but dull and weak in effect, and besides, nothing white. In France and Germany the maner is when they would make salt, to cast

This seemeth to be our Bay-salt.

* This is the order of salt with vs in our wiches here in England. Sea.

quest, that every 2 gallons thereof might not be bought much vnder the price of a thousand sterces. Certes setting aside sweet perfumes & odoriferous ointments, there was not a liquor almost in the world that began to grow vnto a higher rate & reckoning, in so much as some places and people carried the name thereof, and were innobled therein. And verily in all Mauritania, Granade in Spaine, and Carteia, the inhabitants lie in wait to fish for these Scombri, and to take them as they enter out of the Ocean into the straits of Gilbreter, and all for this Garum, being indeed good for nothing els. The city Clazomena in Asia, the towne Pompeij & Leporis, are much renowned for this sauce: like as Antipolis, Thuri, and of late daies, Dalmatia for their pickle. The grosse grounds or dregs of this sauce, before it be strained, purified, and fully finished, is called Alex, euen the very defect & imperfection therof. Howbeit, of late time men haue gone in hand to make the said Alex or Garum of one kind of fishes apart by themselves, which otherwise are good for little or nothing, & of all others be smallest: this fish we in Latin call Apua, the Greeks Aphye, for that it is engendered of rains and showers. In the territory of Forojulium, the fish whereof they make this sauce, they call * Lupus. But in proceſſe of time Garum arose to excesſe, both in price & varietie of use: in so much as there grew an infinite number, of diuers kinds: for one sort there was of Garum that in colour resembled old honied wine, and became so cleare and sweet withall, that it might wel enough haue bin drunk for wine: another kind there was, which our superstitious votaries vse, for to keep themselves chaste & continent; & the Iews also in their holy sacrifices employed the same, especially that which is made of skaly fishes. In like manner, the other sauce, Alex, is come to be made of Oysters, sea Virgins, sea Nettles, Crabfishes, Lobsters, and the liuers of sea Barbles. In sum, thus wee haue deuised a thousand waies to dissolve salt with the consumption of the substance of fish, and all to procure appetite to meat and to content the belly.

Thus much I thought good to note curſarily, as touching those sauces which are so greatly longed after in the world; & the rather for that in some sort they serue in the practise of Physick: for the grosse liquor or sauce Alex, healeth the scab in sheep, if the skin be scarified or skinned, and the same Alex poured therupon. Also it is singular against the biting of a mad dog, or the prick of the sea dragon: the same likewise serues to soke linnen wreaths to be laid in wounds or rents made of lint to bee put into sores. As for Garum, it healeth any fresh burne, if a man drop it vpon the place, without naming it, or saying that it is Garum: good it is besides for the biting of mad dogs, but especially for the Crocodiles rooth: as also for running vlcers which be either corrosiue or filthy. Of wonderful operation & effect besides for the sores of the mouth, and ears, as also for their pains. The pickle Muria likewise, or that salt liquor that cometh from salt fish, called in Latin Salsugo, is astringent, biting, discusse, and drying: singular for to cure the dysentery or bloody flux, yea, though there were an eating vlcere within the guts: for the Sciatica and inueterat fluxes of the stomach, it is soveraign: and to conclude, those that dwell far from the sea in the midland parts of a country, vse to bath and foment themselves with it in lieu of sea water.

CHAP. X.

The nature of Salt, and the medicinable vertues thereof.

SALT, by nature standeth much vpon fire, & yet an enemy it is and contrary vnto fire, it flieth from it, eating and consuming all things whatsoever: astringent it is, desiccative, binding, and knitting. It keeps from putrefaction, bodies that be dead, and causeth them to indure so a world of yeares. In physick it is held for mordant, burning, caustick, and mundificative. It doth subtiliat, extenuat, and dissolve. Contrary it is to the stomach, and serueth not but only to prouoke appetite. With origan, hony, and hyssope, it is singular against the sting of serpents: and more particularly of the horned serpent Ceraſtes, if it be applied with origan, cedar-roſin, pitch or hony. Being drunk with vineger, it helpeth those that be pricked with the Scolopendre: and applied as a liniment with oile or vineger, and a fourth part of line seed, it is good against the sting of scorpions: also with vineger alone, for the sting of hornets or wasps & such like. Incorporated with calues tallow, it serues much to cure the migrim, skals in the head, small pocks, measles, & werts which begin to breed: also for the accidents of the eies, to wit, the excreſcence of superfluous flesh in those parts, or the turning vp of skin about naile roots of fingers or toes. But

But principally for the eyes, and therefore it entreth into collyries and eie-salues. Howbeit for these purposes aboue named it is thought that the salt named Tattarus, of the lake Tatta, is most commended, as also the other lake like it, called Caunites. If the eies be bloud shorten, or look black and blew vpon some stripe, apply salt with an equal weight of Myrrh, & with hony, or els with * Hyssop & hot water, with this charge, to foment or bath the place afterward with a kind of salt brine. But aboue all, Spanish salt would be chosen for this effect: & it is also good against cataracts and suffusions of the eies: if it be ground with milke vpon some touch-stone, whetstone, or hard porphyrit marble. More particularly, it is singular for the black bloud gathered in the eies, if it be folded within a little linnen cloth, & so applied: but the same ought to be dipped oftfoons in hot water, and so the place to be oft times parted withall. For the cankers or sores in the mouth, it is good to lay salt vpon fine lint. In case the gumbs be swelled, it were not amisse to rub them therewith. Being beaten and reduced into small powder, it serueth for the roughnesse of the tongue. Moreouer it is said, That whoſoeuer hold euery morning vnder his tongue while hee is fasting a little salt vntill it be melted, hee shall by that meanes preferue his teeth from being worm-eaten or rotten. The same incorporat in raisins without stones, and in boeuf suet, with a little origan, leuen, or bread, is soveraign for the leprosie, felons, tectars, ring-worms, and the wild scab. But in all these accidents, the salt of Thebais in high Egypt is most commended: and of this they make choice also to kill the itch. A gargarism or collution therof with hony, is passing good for the inflammation of the amygdals and the uvula. There is no kind of salt but it helpeth the squinancie, and the rather if it be vsed inwardly with oile and vineger, so as at the same time it be applied without the throat also in a liniment with tar. If a cup of wine be dressed therewith it softneth the belly being collicue. The same also taken in Wine chafeth out of the body all worms and any hurtful vermin besides. Held vnder the tongue, it inableth them that haue bin weakned with some long disease, and newly recovered, to indure the heate of bains or stoues the longer. Singular it is for the grief of the sinues: but in the practise and vse of this receit, it would be obserued especially, that there be applied about the shoulders and reins of the back, sachels or bags full of salt, and the same made hot oftentimes in seething water: for so it easeth the pain. Being giuen in drink, or laid to exceeding hot in the said bags, it asswageth the collique and other wrings in the belly, yea and the sciatica. Beaten small, and applied in manner of a cataplasme, with meale, hony, and oile, it is soveraigne for the gout in the feet. Where I may not forget the obseruation of this soveraign receit, which putteth vs in mind, that there is nothing better for the whole body [of such especially as be subiect to the gout] than * salt and Sun together. For thus we see, That our fishers at sea ordinarily haue brought as hard and tough as horne. A principall thing this is therefore to be nominated and set downe for the gout in the feet. But salt moreouer takes away cornes of the feet, and kibes in the heels. Being chewed in the mouth and so applied, or els with oile, it healeth any burn or skald, and keeps the skin from rising into blisters. With vineger and hyssop it cureth S. Anthonies fire and all vlcers that be corrosiue. It heals likewise cankerous sores, if it be applied with wild vine grapes. Reduced into fine powder and laid to with barley meale, it is soveraign for vlcers corrosiue such as be called VVolues, and do eat deep to the very bone; so there be laid ouer the same and the part affected, a linnen cloth well soaked and bathed in wine. A proper remedy it is for the jaundise, and riddeth away the itch occasioned thereby, if the patient be rubbed all the bodie ouer with it, oile, and vineger, against a good fire vntill hee doe sweat. But with oile alone it serues for those that feel themselves weary. Many phyſitians haue cured those that be in a drop-sie with salt, and haue ordained to rub their bodies with oile & salt together, who are in an ague, for to auoid the extremitie of heat: and they hold opinion, That there is not a better thing to dispatch an old cough, than to be licking euery anon of salt. They haue giuen order also by way of elistre to minister salt vp into the body, for the Sciatica. To apply the same also to eat away proud or dead flesh in any vlcers. Being lapped within a linnen cloth, and applied to the biting of Crocodiles, it is soveraign, so that the place affected were well parted withall, and pressed hard before. Moreouer, good it is to be taken in honied vineger against the dangerous Opium. Brought into a cataplasme with hony and meale, it is of great effect to rectifie any dislocation of bones which be out of joint: and in that sort it taketh downe all tumors or swelling bunches. A collution or fomentation therewith allayeth the tooth-ache: and a liniment also made with it and Roſin worketh the same effect. For all these accidents before named, the

* Which some take to be, our Pike.

* Hyſſopo. Some read Oſſopo.

* Salt & ſole.

the some of salt found sticking to rockes, or floating vpon the sea water, is thought to be more conuenient than any other salt. But to conclude, any salt whatsoever it is serueth well for those medicines that be ordained either to take away lassitudes, or to enter into those sope balls that are to polish the skin and to rid it from wrinkles. If either a boeue or mutton be rubbed with salt, it will kill the skab or mange in them: for which purpose also they giue it vnto the sayd beasts for to lick: and more particularly it is spurted out of ones mouth into horses eies. Thus you see what may be said as touching salt.

CHAP. X.

¶ Of Nitre, and the sundry kindes thereof. The manner of making Nitre. The medicines and obseruations to it belonging.

I May not put off the treatise concerning the nature of Salnitre, approaching so neer as it doth to the nature of salt: and the rather am I to discourse of it more exactly, because it appears euidently, that the physicians who haue written thereof were altogether ignorant of the nature and vertues of it: neither is there any one of them who in that point wrote more aduisedly, than *Theophrastus*. In the first place this is to be noted, That among the Medians there is a little Nitre ingendred in certain vallies which in time of drought became all hoary & grey therewith and this they call Halmirrhaga. There is found also some of it in Thracia neere vnto the Citie Philippi, but in lesse quantitie, and the same all fouled and bewraied with the earth, & this they name Agriou. In times past men haue practised to make Nitre of oke wood burnt; but neuer was there any great store of it made by that deuise: and long it is since that feat was altogether giuen ouer. As for waters & fountains of nitre, there be enow of them in many places, howbeit the same haue no astrigent vertue at all. But the best Nitre is found about Clyta in the marches of Macedonie, where there is most plenty thereof, and they call it Chalastricum: White and pure it is, and commeth neere to the nature of salt. And verily a lake or meer there is standing altogether vpon nitre, and yet out of the midst thereof there springeth vp a little fountain of fresh water. In this lake there is ingendred Nitre about the rising of the Dog-star for 9 dayes together: then it stayeth as long, and beginneth fresh againe to fote aloft: and afterward giues ouer. Whereby it appeareth that it is the very nature of the soile that breedeth it; for knowne it is by experience, That if it cease once, neither heat of Sun nor shoures of rain wil serue or do any good. Besides, there is another wonderful propertie obserued in this lake, that notwithstanding the foresaid spring or fource do feeth and boile vp continually, yet the lake neither riseth nor ouerfloweth. But during those nine daies wherein it is giuen to yeeld Nitre, if there chance to fall any shoures, they make the nitre to taste the more of salt. And say that the North-East winds do blow the while, the Nitre is nothing so good and cleere, by reason of the mud mingled withall, which those winds do raise. Thus much of Nitre naturall.

As for artificiall Nitre, great aboundance there is made of it in Egypt, but far inferiour in goodnesse to the other: for brown and dusky it is, and besides full of grit and stones. The order of making it is all one in manner with that of salt, saving onely that in the salt houses they let in sea water, whereas into the boiling houses of Nitre they conuey the water of the riuer Nilus. Whiles Nilus doth rise and flow, you shal haue the said nitre-pits or workhouses dry: but as it falleth and returneth again toward the channel, they are seen to yeeld a certaine moisture, (which is the humor of nitre) and that for the space of forty daies together, with no rest or intermission between, as there is about Clyta in Macedonie abovesaid. Moreover, if the weather be disposed to rain during that time, they imploy not so much of Nilus water to the making of Nitre. Now so soon as the said humor beginneth to thicken, presently they gather it in all hast, for feare it should resolue again and melt in the nitre pits. In this nitre, as well as in salt, there is to be found between whiles a certaine oleous substance; which is held to be singular good for the farcin and scab of beasts. The nitre it selfe is laid vp and piled in heaps, where it hardeneth and continueth a long time. But admirable is the nature of the lake Ascanius, and of certaine fountaines about Chalcis, where the water aboue, and which flieth vppermost, is fresh and potable; but all beneath and vnder it toward the bottome is nitrous. The lightest of the Nitre and the finest is reputed alwaies the best; and therefore the some and froth thereof is better than any other part. And yet for some vses the grosse and foule substance is very good, and namely,

for the setting of any colour vpon cloth, and especially the purple die. As touching the vertues of nitre it selfe, & how it is imploied many wayes, I wil write in place conuenient. But to return againe to our nitre pits, and their boiling houses, there be of them very faire and goodly in Egypt. In old time, they were wont to be about Naucratis and Memphis only; but those at Memphis were nothing so good as the other: for there, the nitre lying vpon heapes, groweth to the hardnes of a stone; in so much, as by this means, you shall see mountaines thereof like rockes. Of this nitre they vse to make certain vessels to vie in the house: and many times they melt it with sulphur, & boyle it ouer the coles for to giue a tincture vnto the said vessels: look also when they would keep any thing long, they vse this stone-nitre. Moreover, there be in Egypt other nitre pits also, out of which there issueth a reddish kind of nitre, resembling the color of the earth from which it sweateth and cooeth out. As for the some of nitre (which is commended for the best of all) the antient writers were of opinion, that it could not be made but when the dew fell: at what time as the nitre pits were (if I may so say) great bellied and full of nitre within, but not ready to be deliuered thereof: and therefore if they be neare (as it were) to their time, there can no such froth be gathered, notwithstanding the dew do fall. Others there be of this minde, that the said vppermost coat or crust aloft, is ingendred by reason of the fermentation of the sayd nitre: but the modern Physicians of late daies haue thought and taught, That *Aphro-nitrum is gathered in Asia, and found within certain soft and gritty caues distilling out of rocks: [These caues because they be vaulted and arched ouer head, the inhabitants call *Cochlacas] which afterwards they doe drie in the Sun: and the best is thought that of Lydia. The true marke to know good sal-petre, is to be very light in hand, exceeding brittle, & easie to crumble; inclining also much to the colour of purple: this is brought from thence to vs in trochiscs. As for the Egyptian Aphro-nitre or Salt-petre, it comes in vessels wel pitched, because it should not melt and resolue into water. Those vessels also before named, ought to be thoroughly dried & dressed in the Sun. As for nitre, the best is chosen by these marks; namely, if it bee passing fine & cleare, but withall, spongius & very ful as it were of pipes and holes. Many do sophisticat it in Egypt with quicklime; but this deceit may be easily found by the tast: for the good and true sal-nitre will soone melt and dissolue at the tongues end; whereas the other that is not right, pricketh and biteth in the mouth: moreover, if it haue a sprinkling of lime among, it carrieth a strong smell with it. When it is calcined in some earthen pot, it ought to be well couered with a lid, lest it leap or fly out; otherwise, in the fire it selfe, it sparkleth not nor leapeth forth: neither groweth any thing els in those places where sal-nitre is ingendred, whereas in salt-pits grasse commeth vp. As for the Sea, what a number of liuing creatures breedeth it? and what plenty of reike and weeds besides? And not only by this argument appeareth it, that there is more acrimonie and sharpnesse in sal-nitre than in salt, but also herein, That no shooes will abide the nitre pits, but presently fret and weare; for otherwise wholsome they be and soueraign for the eies: neither was it euer seen, that any men who handled these pits of nitre, and wrought therein, were euer blind. Moreover, this commodity they haue, That if a man come thither hauing a sore or vlcer vpon him, the same will soone be healed vp and skinned cleane: but if one chance to bee wounded or hurt there, long it will be ere he be cured thereof. Salnitre prouoketh sweat, if the body be appointed with it and oile together, and it maketh the skin soft and tender. That which is called Chalastricum, serueth in lieu of salt, in making bread, whereas the Egyptian nitre is vsed with radishes, for it maketh them more tender. As for cates and meats, if they bee powdred withall, they will look white and be worse for it: whereas all woorts either for pot or sallad, will seeme the greener.

To come now vnto physick and the medicinable vertues of salnitre: hot it is of temperature, and dorch extenuat; biting besides, and astrigent: a great drier it is, & doth exulcerat. In regard of which qualities, imploied it is in those accidents which require either drawing to the exterior parts, or to be discussed and resolued: such also as need some gentle mordication, or would be lightly extenuated; as meazils, small pocks, wheals, and pimples. Some for this purpose, first make it red hot in the fire, and then quench it with some astrigent wine: which done, they beat and reduce it to powder, and therewith rub and chaufe the body in the baine, without any addition of oyle to it: mixt with the powder of dried flour-de-lis, & incorporat in green oile oliue, it represseth immoderat sweets: a liniment made therewith & figs together, dorch extenuat the films in the eies; and the asperity of the cie-lids it doth subtiliat: the same operation hath it besides.

if it be sodden in wine cuit to the consumption of the one halfe: and so is it good for the spots G that arise in the eies. The decoction of nitre boiled within the rind of a pomegranat in wine cuth, cure the sore nails and the raggednesse thereof: and reduced into an ointment with honey, it cureth the eie-sight: a collution made therof, sodden in wine with pepper, easeth the tooth-ach. If the mouth and gums be washed therewith: so doth the decoction thereof with leeks. Burn or calcine nitre into powder, it maketh an excellent dentifrice for blacke teeth, and reduceth them again to their naturall whitenesse: annoint the head with nitre & Terra Samia incorporat together in oile, it killeth the lice and nits that breed therein: dissolved in wine, and poured into the ears that run attyr, it cureth them: dropt into them with vinegar, it eateth and consumeth the filthy excrements of that part: conueied dry into the said ears, it discusseth the ringing & ringing therein. A liniment made of nitre and fullers earth, of each a like weight, incorporat with vinegar, taketh away the foule morphew, if the skin be annointed therewith: mixed with rosin, or with raisons of white grapes stamped stones and all, it draweth vncoms and fellons to an head, and breaks them: reduced into an ointment with swines greafe, it preferueth the genitoirs from inflammation, & cureth them: good likewise for the meafils and small pocks which break out in all parts of the body: put rosin thereto, and incorporat them both in a liniment with vinegar, it healeth the biting of a mad dog, so it be taken betimes at the beginning: and in this manner, it cureth also the sores occasioned by the sting of serpents, eating vlcers, which consume to the bone: such likewise as be corrosiue and apt for putrefaction, so it be mixed with quick-lime and tempered with vinegar. Stamp nitre with figs, and bring it into the form of a cataplasme or liniment, it doth much good for the dropsie: the ventosities causing wringings and painful gripes of the belly, it discusseth, if the decoction thereof be drunk: namely, when to the weight of one dram, it is sodden with rue, dill, or cumin. Annoint their bodies all ouer who are weary, with nitre, oile, and vinegar, you shal see how effectually it is to refresh them and driue away their lassitude. Rub and chaufe both hands and feet, with nitre & oile wrought together, is singular good against quaking and shivering cold: giuen with vinegar, especially in a swet, to those who are painted with the jaundise, it represseth the itch that troubleth them: if a man be poisoned with taking venomous mushrooms, he shall find means to auoid the danger thereof by drinking nitre in oxycrat or vinegar & water mingled together. Hath one swallowed down the hurtfull fly Buprestis? let him take a draught of sal-nitre in water, it wil saue him, for it causes vomit: to those that haue drunk bulls blood, it is vsually giuen with the spice Lafer: incorporat with honey and cow milk, it healeth the breaking out and the exulcerations in the face. Torrisie nitre vntill it begin to look blacke, beat it then to powder and cast the same vpon a raw place that is burnt, it wil take out the fire and skin it vp again: for the paine of the belly and the kidneys, for the stiffness and starknesse of the lims, the griuance also of the sinews, it serueth well in a clystire: lay it to the tongue with bread, it is soueraigne for the palseie or resolution of the sinews: it helps those that be short-winded, if they take it in a Ptisan, or with husked barley. The floure of nitre incorporat in Galbanum, and the rosin called terpenitine, of each an equall weight, and reduced into a lochoch, so as the patient swallow down the quantity of a Bean at once, cures an old cough.

* Burn or calcine nitre, temper it afterwards with liquid pitch or tar, and giue it to drink, it cureth the squinancy. The floure of nitre incorporat with the oile Cyprinum, makes a pleasant liniment to annoint the body withal in the Sun, for the gout or any paine of joints: drunk in wine it doth exterminat and driue away for euer, the jaundise: it scattereth and discusseth ventosities, it stoppeth bleeding at the nose, if the patient receiue into the nostrills the vapour of it out of boiling water: mixed well with alumie, it riddeth away an itch: foment or bath the arme pits daily euery day therewith in water, it correcteth the ranke smell thereof. Make a liniment or cerot of nitre and wax tempered together, it healeth the vlcers occasioned by fleame: after which manner it is good also for the sinews. Being injected by a clystire, it helpeth the flux of the belly, proceeding from a feeble stomack. Many Physitians haue giuen direction to annoint the body all ouer with sal-nitre and oile, before the cold fits of agues: which ointment serueth likewise for the leprosie, and the vnseemly spots or freckles that blemish the skin. To sit in a tub of nitre within the baines, & therewith to bath the body, is a soueraigne thing for those that haue the gout, be in consumption, and either draw backward with the crampe, or stretched and plucked so strait and stiffe therewith, that they seem all of one entire piece. Sal-nitre, if it bee boiled together with sulphur, turneth to be as hard as a stone.

* Nitur, not
Cognitur, et
Diest.

Many sorts there be of Spunges, according as I haue shewed already more amply in my treatise of water-beasts, and those especially of the Sea, and their seuerall natures: howbeit some writers distinguish them after another manner, into male and female: for some of them they haue thought to be of the male sex, to wit, those which haue smaller pipes or concauities, and those growing thicker and more compact, whereby they sucke vp more moisture, and these, our delicat and dainty people, die in colours, and otherwhile giue them a purple tincture. Others they count of the female sex, namely such as haue bigger pipes, & the same running throughout one continuity without interruption. Of the male kind, some be harder than others, which they call Tragos; the pipes whereof are the finest, and stand thickest together. There is an artificiall deuise to make spunges look white, to wit, if the softest and tendrest of them be taken while they be fresh in summer time, and so bathed & foked wel in the some of salt: after which they ought to be laid abroad in the moon-shine, to receiue the thick dew or hoary frosts (if any fall) with their bellies vpward into the aire, I meane that part whereby they cleaue fast to rocks or sand where they grew, that thereby they may take their whitening. That spunges haue life, yea and a sensible life, I haue proued heretofore; for there is found of their blood settled within them. Some writers report, that they haue the sense of hearing, which directs them to draw in their bodies at any sound or noise made, and therewith to squeeze out plenty of water which they contained within: neither can they easily be pulled from their rocks, and therefore must be cut away, whereby they are seen to shed a deale of blood, or that which resemblith blood very neer. Many do prefer the Spunges growing in places exposed to the North-wind, before any other: neither doe any hold and maintaine longer in any place their owne breath, as Physicians doe hold; who asirme, that for this regard they be good for our bodies, namely, if wee entermingle their breath with ours by application: for which purpose, the fresher taken and the moister they be, the better they are thought: but this their operation is lesse perceived, in case they be wet in hot water, and so applied: likewise if they be foked in any vnctuous liquor, or bee laid vpon any part of the body annointed. This also is obserued by them, that the thickest of them, to wit, such as haue the least pipes, sticke not so hard to a place as others. As touching the softest and finest spunges, called Penicilli, if they be applied vnto the eies after they haue beene foked in honied wine, they do allay and bring down any swelling in them. The same are abstersiue and singular good to clarifie and cleanse the eies that be giuen to bleednesse: but those (I say) ought to be of the finest and softest kind. For to stay the violent flux of rheumaticke humors into the eies, there is nothing better than to apply spunges of any sort with oxycrat, that is to say, vinegre and water: but with vinegre alone actually hot, they be singular for the head-ach: and otherwise, any sponge that is fresh gotten, doth discusse, mollifie, & mitigat. Old spunges do conglutinat and foulder any wounds. There is a generall vse of all spunges, to wipe and mundifie any place, to foment and bath withall: to keep off the aire also and to couer it after fomentation, vntill another medicine be made ready for to be laid on fresh. Moreover, they be desiccative, & therefore if they be applied to rheumaticke and moist vlcers, and namely in old folke, they dry vp the superfluous humors that find a way thither: neither is there any thing so fit for to foment a fracture or green wound, as spunges. Also, when any part of the body is cut off or dismembred, what is so handy to suck and soke away the blood quickly, (that the cure may be thoroughly seen, & the order thereof) as a sponge? Furthermore, spunges themselues serue to be laid to wounds, sometime drie and sometime dewed or sprinkled with vinegre, one while wet in wine, anotherwhile moistened with cold water, and all to defend them from inflammation: but if they be bathed in raine water, and so applied to members new cut, they will not suffer them to swell and impostumat. They are besides laid vsually to the sound parts, where no skin is broken, if there be any hidden and secret humor that runs vnder the place, and puts it to paine and trouble, such as needeth to be discusse, or resolued: also to impostumes, if they be first annointed with boiled hony. In like manner, for the paine of the joints they are proper to be applied, one while wet in vinegre with salt, anotherwhile dipped in vinegre and water: and if the gout be hot, they would be laid to foked in water only. The same spunges ought for the dissolving of hard callosities, to be wet with

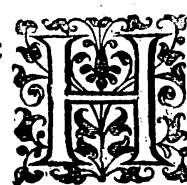
salt water: & against the sting or prick of scorpions, with vinegre. In the cure of wounds, sponges may be vsed in stead of vnwasht greasie wooll, sometimes applied with wine and oile, and sometimes also with the said wooll: this only is the difference, That such wooll doth mollifie, whereas sponges do restrain and smite back: and yet a facultie they haue, to fetch out and sucke away the filthy excrements, attyre, and quitter, that gather in sores and wounds. They may be bound about the body of those that haue a dropsie, either drie, or else wet in warme water or vinegre, according as need requireth, either to goe gently to worke, or to couer and dry the skin. Our and besides, good it is to apply sponges to those accidents and infirmities of the body which require euaporation; namely, if they be well foked and thoroughly wet in hot water, and then pressed and strained between two tables or bords. After which manner, they are good to be laid to the stomack, and in a feauer, against extremitie of heat. For those that be troubled with the oppilation or hardnes of the spleen, there is not a more effectual remedy, than to apply sponges to the place affected, wet in oxycrat or vinegre & water together: like as for shingles and *S. Anthonies euill*, with vinegre only. But in this application of them, consideration must be had that they couer the sound parts also round about as well as the other. Sponges wet in vinegre and cold water, staunch any flux of blood. If there be any place of the skin blacke and blew, vpon a fresh or new stripe, lay thereto sponges well drenched in salt water, changing them often one after another, and it shall recouer the naturall colour againe: in which order, they bring down the swelling of the cods, and allay their paine. Being hacked and cut small, they serue to good purpose for to be laid to the biting of mad dogs; so that estfoones and cuer and anon they be wet and refreshed with vinegre, cold water, or hony good store, one with another. The sponges of Africke or Barbarie being burnt or calcined, doe make soueraigne ashes for to be drunke with juice of vnset leeks in cold water (so there be put vnto a draught thereof, a quantitie of salt) by such as cast or reach blood vward at the mouth. The same ashes reduced into a liniment, either with oile or vinegre, and so applied as a frontall to the forehead, driue away tertian agues. These African sponges haue this peculiar qualitie, to discusse any tumors, if they be applied to them well foked in oxycrat or water and vinegre mixed together. The ashes of any sponges whatsoeuer, burnt together with pitch, staunch the bleeding of any wound: and yet some there be who in this case burn those only with pitch which are of a grosse and loose making, and not so compact as the rest. Moreouer, for the accidents of the eies, sponges are many times burnt and calcined, in an earthen pot vnbacked: and the ashes which come thereof, do much good also vnto the pilling and asperitie of the eie-lids, the excrescence of flesh, and whatsoeuer in those parts needeth attrition, or otherwise to be vnited, fowdred or incarnat: and for these effects, it is much better to wash the said ashes. Furthermore, sponges, in friction and rubbing of crasse bodies, may well stand in stead of currying combs, and course linnen cloaths: besides, they serue right handfomely and fitly, to couer and defend the head against the extreame heat of the Sun. Moreouer, the ignorance of our Physitians, is the cause that all sponges be reduced to two only kinds, to wit, vnder the name of African, which be of more tough and firme substance; and the Rhodiacke, which are softer, and therefore meet for fomentations. At this day the tendrest and most delicate sponges are found about the walls of the citie Antiphellus. And yet *Trogus* writeth, that about Lycia, the softest sponges called Penicilli, do grow in the deep sea, and namely in those places, from whence other sponges beforetime had been plucked and taken away. Finally, *Polybius* doth report, that if sponges be hung about the tester or feeling of a bed ouer sicke persons, they shall take the better rest and repose all night for it. Now is it time for me to returne vnto Beasts of the Sea, and other creatures liuing and bred in the waters.

THE

**THE XXXII. BOOKE OF
THE HISTORIE OF NATURE,
WRITTEN BY C. PLINIUS
SECVNDVS.**

The Proem.

¶ *Medicines taken from liuing creatures of the Sea.*



Having so far proceeded in the discourse of Natures historie, that I am now arrived at the very height of her forces, and come into a world of Examples, I cannot chuse but in the first place consider the power of her operations, and the infinitenesse of her secrets which offer themselves before our eies in the Sea: for in no part else of this vniuersall Frame, is it possible to obserue the like maiestie of Nature: in so much as we need not seeke any further, may we ought not to make more search into her diuinitie, considering there cannot be found any thing equall or like vnto this one Element, wherein she hath surmounted and gone beyond her owne selfe in a wonderfull number of respects. For first and foremost, Is there any thing more violent than the Sea, and namely, when it is troubled with bloustring winds, whirlpuffs, stormes, and tempests? Or wherein hath the wit of man bene more employed (seeke out all parts of the whole world) than in leconding the wanes and billowes of the Sea, by saile and oare? Finally, Is there ought more admirable, than the innarrable force of the reciprocal sides of the Sea, ebbing and flowing as it doth, whereby it keepeth a current also, as it were the streams of some great river?

CHAP. I.

¶ *Of the fish Echeneis, and her wonderfull propertie. Of the Crampe-fish Torpedo, and the Sea-hare. The wonders of the Red sea.*



The current of the Sea is great, the tide much, the winds vehement and forcible; and more than that, ores and sails withall to helpe forward the rest, are mighty and powerfull: and yet there is one little sillie fish, named Echeneis that checketh, scorneth and arresteth them all: let the winds blow as much as they will, rage the stormes and tempests what they can, yet this little fish commandeth, their fury, restraineth their puissance, and mauge all their force as great as it is, compelleth ships to stand still: A thing, which no cables, be they neuer so big and strong, no ankers, how massie and weightie soeuer they be, sticke they also as fast and vnmouable as they will, can performe. Shee bridlith the violence, and tameth the greatest rage of this vniuersall world, and that without any paine that she putteth her selfe vnto, without any holding and purting backe, or by any other meanes, saue only by cleauing and sticking fast to a vessell: in such sort, as this one small and poore fish, is sufficient to resist and withstand so great power both of sea and nauie, yea and to stop the passage of a ship, doe they all what they can possible to the contrary. What should our fleets & armadoes at sea, make such terrors in their decks and fore-castles: what should they fortifie their ships in warlike maner, to fight from them vpon the sea, as it were from mure and rampier on firme land? See the vanity of man! alas, how foolish are we to make all this adoe? when one little fish, not above halfe a foot long, is able to arrest and stay perforce,

perforce, yea and hold as prisoners our goodly tall and proud ships, so well armed in the beake-
head with yron pikes and brazen tines, so offensive and dangerous to bouge and pierce any ene-
mie ship which they do encounter. Certes, it is reported, that in the nauall battell before Ac-
tium, wherein *Antony* and *Cleopater* the queene were defeated by *Augustus*, one of these fishes
stayed the admirall ship wherein *M. Antonius* was at what time as he made all the haile & means
he could deuise with help of ores, to encourage his people from ship to ship, and could not pre-
vaile, till he was forced to abandon the said admirall and go into another galley. Meane while
the armada of *Augustus Caesar* seeing this disorder, charged with great violence, and soone in-
uested the fleet of *Antony*. Of late daies also, and within our remembrance, the like happened
to the roial ship of the Emperour *Caius Caligula*, at what time as he rowed back and made saile
from Astura to Antium; when and where, this little fish detained his ship, and (as it fell out af-
terward) presaged an vnfortunate euent thereby: for this was the last time that euer this Emperour
made his returne to Rome: and no sooner was he arriued, but his owne souldiers in a mutinie
fell vpon him, and stabbed him to death. And yet it was not long ere the cause of this wonderful
stay of his ship was knowne: for so soon as euer the vessell (and a galliace it was, furnished with
fue banks of ores to a side) was perceiued alone in the fleet to stand still, presently a number of
tall fellows leapt out of their ships into the sea, to search about the said galley, what the reason
might be that it stirred not; and found one of these fishes sticken fast to the very helme: which
being reported vnto *Caius Caligula*, he fumed and fared as an Emperour, taking great indignati-
on that so small a thing as it, should hold him back perforce, and checke the strength of all his
mariners, notwithstanding there were no fewer than foure hundred lusty men in his galley; that
laboured at the ore all that euer they could to the contrary. But this prince (as it is for certaine
known) was most astonied at this, namely, That the fish sticking onely to the ship, should hold
it fast; and the same being brought into the ship and there laid, not worke the like effect. They
who at that time and afterward saw the fish, say, it resembled for all the world a snail of the
greatest making: but as touching the forme and sundry kindes thereof, many haue written di-
uerly, whose opinions I haue set downe in my treatise of liuing creatures belonging to the wa-
ters, and namely in the particular discourse of this fish. Neither do I doubt but all the sort of
fishes are able to doe as much: for this wee are to beleue, that *Porcellans* also be of the same
vertue, since it was well knowne by a notorious example, that one of them did the like by a ship
sent from *Periander* to the cape of *Gnidos*: in regard whereof, the inhabitants of *Gnidos* doe
honour and consecrate the said *Porcellane* within their temple of *Venus*. Some of our Latine
writers do call the said fish that thus staieth a ship, by the name of *Remora*.

As touching the medicinable properties of the said stay-ship *Echeneis* or *Remora* (call it
whether you will) a wondrous matter it is to see the varietie of Greek writers: for some of them
(as I haue shewed before) do hold, that if a woman haue it fastened either about her neck, arme,
or otherwise, she shal go out her full time if shewere with child: also, that it will reduce her ma-
trice into the right place, if it were too loose and ready to hang out of her body. Others againe
report the contrary, namely, That if it be kept in salt and bound to any part of a woman great
with child and in paine of hard trauell, it will cause her to haue present deliuerance; for which
vertue, they call it by another name **Odinolion*. Well, however it be, considering that mighty
puissance which this fish is wel known to haue in staying ships, who wil euer make doubt here-
after of any power in Nature her selfe, or of the effectuall operation in Physicke, which she hath
giuen to many things that come vp by themselves. But say we had no such euidence by the ex-
ample of this *Echeneis*; the Cramp-fish *Torpedo*, found and taken likewise in the same sea, were
sufficient alone to proue the might of Nature in her workes, if there were nothing else to shew
the same: for able she is to benum and mortifie the arms of the lustiest & strongest fishers that
be; yea and to bind their legs as it were, how swift and nimble soeuer they are otherwise in run-
ning; and how euen by touching only the end of a pole, or any part of an angle rod, which they
hold in their hands, although they stand aloft and a great way from her. Now if we cannot will
nor chuse, but must needs confesse by the euident instance of this one fish, that there is some
thing in nature so penetrent and powerfull, that the very smell only or breath and aire proce-
ding from it, is able thus to affect, or infect rather the principall lims and members of our bo-
die; what is it that we are not to hope for and expect from the vertue of all other creatures that
Nature (through her bounty) hath endued with medicinable power for the remedy of diseases?
And

* i. Loofe-
throws, or
calf-paine.

A And in very truth, no lesse admirable be the properties which are respected of the sea-Hare: for
to some a very poyson it is, taken inwardly either in meat or drinke: to others againe, the onely
aspect and sight thereof is as venomous. For if a woman great with child chance but to see the
female only of this kind, she shal sensibly therupon feele a sicke wambling in her stomacke, she
shall presently fall to vomiting, and anon to vntimely labour, and the deliuerie of an abortiue
fruit. But what is the remedy? Let her weare about her arme in bracelers, any part of the male,
which ordinarily for this purpose is kept dry and hardened in salt, shee shall passe these dange-
rous accidents. The same fish is hurtfull also in the sea, if it be touched onely. Neither is there
any liuing creature that feeds vpon this fish, but it dieth theron, vnlesse it be the sea Barbell on-
ly: al the harme that this fish catches by eating of it is this, that the flesh is more tender by that
means, and nothing so fast as it was before, besides, the meat is more vnpleasant, & not so much
set by in the market, nor bought vp by Caters for the kitchen. If man or woman chance to be
infected by eating of the sea-Hare, they presently smell and sent of the said fish; and this is the
first signe and argument to proue that they be im poisoned therby; howbeit, they die nor imme-
diatly but may continue so many daies as the said Hare liued after it came out of the sea. And
therefore (according as *Licinius Macer* hath left in writing) this poyson hath no set and prefnit
time wherein it killeth any body. As touching the sea-Hares among the Indians, it is constantly
affirmed, that taken they cannot be aliue, and that by way of counterchange, a man is their poy-
son: for if he do no more but touch one of them with his finger in the sea, it will forthwith die.
And it is said withall, that far bigger he is there than in other seas: like as all other beasts what-
soeuer. King *Inba* in those bookes which he wrote to *C. Caesar*, sonne to *Augustus* the Emperour, as
touching the historie of Arabia, saith, That their limpins, muskles and cockles, are so big in
those seas, that one of their shels wil contain a measure of three hemines. Also that there haue
been known Whales six hundred foot long, and carrying a breadth of three hundred and sixtie
foot, to haue shot themselves out of the sea into the great riuers of Arabia: the fat of which
Whales, (like as the greafe of all other sea-fishes there) is much set by and sought after by mer-
chants, who in all those quarters vse it for to annoint their traouelling cammels, for to driue
away the Breecle or Gad Bee from them, which indeed cannot abide the smell of that oile.

CHAP. II.

¶ The naturall wit, docilitie, and gentlenesse of some fishes. Also where they be so
tractable, that they will take meat at a mans hand. Finally, in
what part of the World fishes giue answer
by way of Oracle.

W Underfull in my conceit is the wit and subtiltie of some fishes, if all bee true which
Ouid the Poet hath reported of them, in that booke of his which he intituled *Halicuti-
con*: For first and formost he saith, That the Goldenie *Scarus* perceiuing himselfe to
be taken in a weire, or enclosed within a wicker-net or leape, neuer striueth to get out againe with
the head forward, or to thrust his muffle betweene the oisiers, for feare he should be caught by
the head: but turning his taile vnto them, keepeth such a flapping therewith, that he makes him-
selfe way by that means, and so breakes forth of prison backward. Now, in case whiles he strug-
gleth and laboureth thus to get out, another Goldenie that is without happen to espie him thus
a prisoner, the same will take hold with his mouth of his fellows taile, and helpe to get him
forth out of the said net, which he endeauours to break through. Also that the sea pike *Lupus*,
when he seeth that hee is compassed about with nets, maketh a furrow with his taile into the
sands, wherein he coucheth and lieth close, that when the fishers draw their nets vnto them, they
may glide and passe ouer him. As for the Lampreis, knowing what a smooth, round, and slippe-
rie back they haue, they make no more adoe, but seeing themselves within the net, get between
the very meshes, which with their much winding and wrigling they will wrest wider and wider
still, vntill they be gotten through and escaped.

The Pulpe fish or *Pourcuttell*, maketh at the very fishhooks which hee searcheth after, and
those he biteth not at, but claspeth hard and gripeeth round about with his clees and armes that
he hath: and neuer letteth he his hold goe, vntill hee hath gnawne and eaten off the bait cleane,
vnlesse before he haue done, he perceiue that he is like to be drawne vp out of the water by the
angle;

angle. The Mullet also knoweth that the bait hath a hook within it, neither is he ignorant that it is laid for to entrap and catch him; howbeit, so greedie he is thereof by nature, that he neuer linneth bearing it with his taile, vntill he hath shaken off the meat from the hook. The Pike is not so wary and prouident in forecaſt, as to keep himſelfe from the danger of the hooke: but of great ſtrength and force he is, when he bethinketh himſelfe and repenteth that he was ſo fooliſh as to be caught: for no ſooner hangs he by the hooke, but he runneth and girdeth with it in his mouth too and fro, forcing and wreſting his wound ſo wide, vntill the ſaid hooke which had faſt hold on him before, be fallen out of his mouth againe.

The Lampricies deuoure the hooke, yea, they gobbie in and ſwallow more than ſo, vntill they come to the very lines, which they ſet their ſharpe teeth vnto, and neuer reſt vntill they haue fretted and gnawne them aſunder. And *Pytheas* is mine Authour, who writeth thus of them beſides, That if they find themſelves to be once vpon the hooke, they turne their bodies and writh ſides, That if they find themſelves to be armed with trenchant and keene edged fins like with their backs, as knowing the ſame to be armed with trenchant and keene edged fins like knives, & ſo with their very ſharpe chine & fins cut the lines atwo. *Licinius Maer* writes of Lampries, that they be all of the female ſex onely, and doe conceiue by ſerpents engendering with them, as I haue heretofore obſerued: which is the cauſe, that fiſhes lure them with hiſſing like vnto ſerpents, and by that meanes call them forth of their holes and catch them. Hee ſaith moreover, That they will feed ſat with milk: and if a man giue them a good knock with a cudgill, they will not die thereupon: rap them onely with a Fennell ſtalke or ſome ſuch wand, you ſhall ſee them dead forthwith. And verily it is held for certaine, that their life lieth in the taile: which if it be ſmitten, they are very ſoone gone and bereft of vitall breath: ſtrike them vpon the head, you ſhall hardly and with much adoe kill them.

There is a fiſh called a Raſoir: looke whatſoeuer toucheth it, ſenteth preſently of yron. Confefſed it is and knowne for certaine, that the Lompe, Paddle, or ſea-Owle, a fiſh called in Latine *Orbis*, of all others hath the rougeſt and hardeſt body. Shaped round it is without ſkales: a man that looketh vpon it, would ſay it were all head.

Trebius Niger mine authour affirmeth, That ſo often as the ſea Kite is ſcene to lance himſelfe and ſlie without the water, it threateneth tempeſts.

The Sword-fiſh, called in Greeke *Xiphias*, that is to ſay in Latine *Gladus*, i. a ſword, hath a beake or bill ſharpe pointed, wherewith hee will driue through the ſides and planks of a ſhip, and bouge them ſo, that they ſhall ſinke withall. The experience whereof is ſcene in the ocean, and the neere vnto a place in *Mauritania* called *Gotta*, which is not farre from the riuer *Lixos*. And the foreſaid writer *Trebius Niger* reporteth, That the ſea-cats or Cuttle fiſhes, called *Loligines*, wil ſlie out of the ſea, and ſettle vpon ſhips in ſuch multitudes, that they force them vnder water and ſo drowne them.

The Emperour *Caeſar* had many faire houſes of pleaſure in the country, where he kept fiſhes that would ordinarily come to hand and take meat. Our anceſters made no ſuch maruell thereat, namely, that they ſhould be ſo gentle & tractable in ſmall ſtewes and fiſh-ponds where they are kept to feed; but they haue written the like of fiſhes in great lakes and ſtanding pooles: And namely, about *Florus*, a caſtle in Sicilie, not farre from *Syracufa*: likewise, in a well or fountaine of *Iupiter Labradus*, there be yeels wil take meat at ones hand, & theſe wear ear-rings alſo about them. Semblably, in *Chios* neere vnto the chappell of the ancients or elders called *Veternum Delubrum*: alſo in a certaine ſpring of *Mefopotamia*, called *Cabura*, whereof I haue alreadie written. As for the fiſhes which keep about *Myrae* in *Lycia*, within the wel or fountain of *Apollo*, called *Curius*, they wil ſhew themſelves of purpoſe to giue preſage & foreknowledge of things to come: and the manner is, to call them to the top of the water with three whiſſes, of a ſife or ſuch like pipe. The order is among thoſe that come to be reſolued by them in ſome future euents, to caſt peeces of fleſh to them: if they ſnatch the ſame & ſwim away therewith, it is a lucky and fortunat ſigne, preſaging a good iſſue of their affaires about which they come; but in caſe and they reſect the ſame, & flurt the meat from them with their taile, that is an ominous token, and foreſheweth ſome unhappie euent to follow. About *Hierapolis*, a citie in *Syria*, the fiſh within the lake or poole of *Venus*, obey the voice of the wardens or ſextons who haue the keeping of her chappell there; and orderly they come at their call, garniſhed with their ornaments of gold about them: they will abide to be ſcratched and clawed, they will wag their tailes like a dog in a fawning and flattering maner; nay, they will gape with their mouths wide open, and ſuffer them

**Laffatus* ſome
reade *laſſatus*
others *laſſatus*,
i. with much
ſtriving and
ſtrugling.

A to thruſt their hands or fingers into them. At *Stabianum* neere to the rocke or cape of *Hercules*, the blacke-tailed ruffles or ſea-breames, which the Greekes name *Melanuri*, if a man caſt crums of bread into the ſea to them, they will catch the ſame, and ſcud away withall: throw them any other meat or bait with a hooke in it, they will not once come neer therto. Neither are theſe to be reckoned among the leaſt wonders and in the laſt place, namely, That about the Iſland *Pele* and the citie *Clazomenae*, all the fiſh that is, taſteth bitter: Contrariwiſe, thoſe that keep about the rock *Scylla* in Sicilie be ſweet, as alſo at *Leptis* in *Affrick*, *Euboea*, and *Dyrrhachium*. Again ſome are ſo ſalt, that they may well be taken for ſalt fiſh that hath lien in brine or pickle, to wit, neer the Iſlands *Cephalenia*, *Ampelos*, and *Paros*: likewise about the rockes and cliffes of *Delos*: and yet in the Bay or hauen of the ſaid Iſland, their meat is ſweet ynough. This difference in the taſt of fiſh, proceedeth no doubt from the diuerſitie of their food. Moreover, *Apion* ſaith, That the greateſt of all other fiſhes is the Mole-bout, which the Latines call *Porcus*, the Lacedaemonians *Orthagoriscos*; and that when he is taken, he will grunt like an Hog, whereupon it ſhould ſeeme he tooke the name *Porcus*. But as touching the foreſaid accident of the variety in the taſt of fiſh, how ſome be ſweet, others ſalt, that it ſhould be a naturall thing (and therefore the more to be maruelled at) appropriat to certaine places, it may appeare by this inſtance, which ſitly proueth the ſame: For take the ſalt fiſh of *Italie*, what kind ſoeuer you will, for certaine it is knowne, That at *Beneuentum* they may be made freſh againe, as if they had neuer bene ſalted.

C That ſea-fiſh hath been vſed at *Rome* from time to time, and euer ſince the very foundation of the citie, it may appeare by the teſtimony of *Caiſius Hemina*: which I will ſet downe word for word as touching that point, in this very place. King *Numa* (quoth hee) ordained, That fiſhes without ſkales ſhould nor be bought vp by Caters for the furniſhing of any ſolemne funerall feaſt. By which inhibition his policie and purpoſe was, that the great dinners, as well publique as priuate; the feaſtiull ſuppers alſo which were kept at the ſhrines of the gods, ſhould not be ſo coſtly and chargeable: for ſeaer alſo leaſt the caters who made prouiſion for ſuch ſumptuous feaſts, ſparing for no coſt, nor ſticking at the price were it neuer ſo high, might foreſtall the markets and buy the ſame vp beforehand.

As touching *Corall*, we (here at *Rome*) ſet not more by the Indian orient pearles (whereof I haue written at large in place conuenient) nor eſteem them at a greater price than thoſe Indians do our *Corall*. And verily, if we deeme aright, it is the opinion and perſuaſion of people only, that ſetteth the price of theſe and ſuch like things. True it is verily, that there is *Corall* bred in the red ſea, but blacker it is than that which we haue: likewise in the Perſian gulfe, & that is named *Iace*. Howbeit, the beſt ſimply is that which is found in the gulfe of *Marſiles* in France, about the Iſlands *Stoechades*: alſo in the narrow ſeas of Sicily, toward *Helia* and *Drepanum*. There is alſo therof growing at *Grauiſca*, & juſt before *Naples* in *Campaine*. But the reddeſt of all other, ſoft & tender withall, and therefore moſt commodious, is engendered about *Erythrae* in *Barbary*. *Corall* reſembles a buſh or ſhrub in forme, & of it ſelfe within the water, is of color greene. The berries thereof vnder the water be white and ſoft: no ſooner be they taken forth, but preſently they wax hard and turne red: much like both in ſhape and in bigneſſe to the grains or fruit of the gentle garden *Cornel* tree. It is ſaid that this plant while it grows and is alieue, if a man touch it neuer ſo little, becomes as hard immediatly as a ſtone. The fiſhers therefore to preuent that inconuenience (as knowing the nature thereof) either pluck it vp with their nets, or cut it with ſome ſharpe edged yron tooles: which is the cauſe that it is commonly called **Curalium*, as ſome make interpretation of the word. The reddeſt *Corall* is taken to be the beſt: the ſame alſo branched moſt, is not rough and ragged vnder the hand to ſeele to, or ſtone-hard: ſo like likwiſe it is and maſſie, nor void and hollow. The berries or beads which it beareth, is of no leſſe account & price with the men of India, than the Indian pearls with our coſtly dames here. And verily among them, their Wiſards, Southſaiers, Priests, & Prophets, haue a religious opinion of them, and attribute great holineſſe to the uſe thereof, as being perſuaded, that whoeuer weare them, ſhall be ſecured againſt all perils and dangers whatſoeuer; and therefore a ſpeciall reckoning they make of them, as well in regard of beautie as deuotion. Before that it was known in what eſtimation *Coral* was with the Indians, the Frenchmen adorned & ſet out their ſwords, targuets, ſhields, morrions, and head peeces therewith: But ſince time that there was a vent into India of this commoditie ſo vendible, great ſcarſitie there is of it, and hardly ſhall a man meet

**En* is *En* ſupis
because it is
cut and ſhorne
(as it were) in
the ſea,

with any Corall, euen in that part of the world where it growes naturally. The branches of Corall hanged about the neckes of infants and young children, are thought to be a sufficient preseruatiue against all withcraft and sorcerie. Calcined by fire, and so reduced into ashes or pouder and giuen to drinke in water, it helpeth those who are troubled with the wringing paines of the belly, the grieue of the bladder, and the disease of the stone. The like effect it hath if it be drunk in wine, or if the patient haue a feauer vpon him, in water for to procure sleep. This would be noted, that Corall doth withstand the power of fire, and long it is before it be burned and reduced into ashes. But surely a singular medicine it is, so prepared and vsed, in so much as (by report) if a man keepe to it still and continue it long, the same will consume the hardnesse and schirrositie of the spleen. The pouder of Corall is soueraign for such as reach and cast vp blood at the mouth. The ashes enter into many mixtures and medicines for the eyes: for astringent they be, and cooling withall. Hollow vlcers and fistulae they incarnate and fill vp againe with new flesh. Skars and cicatrices they do extenuate.

If I should speak of the repugnancie and contrariety in Nature (which the Greekes call antipathie) found in many creatures, there is not to be seen in the whole world any thing more venomous and aduerser to plants than the Puffens or Forke fish of the sea, called *Pastinaca*: for as I heretofore noted, it hath a pricke in the tail, which is able to kill any trees that be pierced or wounded withall. And yet a concurrent and enemy this hath, which doth persecute & plague it, and namely the Lamprey called *Galeos*; so eager is it and greedy of the venome and poyson of that fish. There be other fishes also which it pursueth, but those Puffins especially: and no Weazill hunteth more after serpents. In summe, whosoever be hurt or wounded by the said Puffin, this *Galeos* is a present remedy; so is the Barble also, and the gum *Lasar* or *Benjoin*.

CHAP. III.

¶ Of certaine creatures which liue as well vpon the land as the sea. Of *Castoreum*, or the generatores of a Beuer: the medicinable vertues thereof, and other properties obserued therein.

THE power and majestic of Nature is very conspicuous and visible, euen in those creatures also which liue indifferently on land and in the water: and namely in the Beuers, which commonly the physicians call *Castores*, like as their stones also *Castorea*. Some hold, that these Beuers when they be neuer driuen and pressed by hunters, and at the point to be taken, bite off their owne stones. But *Sextius*, who hath written most exactly in Physicke, denieth it flatly. He saith moreover, that these cods be small, knit short and trussed vp, so as they stick close vnto the chine bone, and cannot possibly be taken from the beast but the life goes away withall. By his saying also they are sophisticated, and the kidnies of the Beuer which are big, be obruded and foisted to vs many times in stead of their stones, which indeed are neuer found but very little & slender. Furthermore he affirmeth, That they be not the right stones of a Beuer when they are seene without a twofold burse or skin, which no liuing creature hath besides. In these two bags there is found (saith he) a certain oleous liquor, which ordinarily is kept & preserued with salt: And therefore among other marks to know false and sophisticated *Castoreum*, is this, If you see a paire of cods, hanging (as it were) knit together by one string in one bag. And yet the best may be falsified by the fraud and cunning of such as put gum thereto with salt *Ammoniack*, because the true Beuers stones ought to beare the colour of *Ammoniack*; to be enclosed also within their seuerall tunicles, and to lie in a certaine liquor resembling cereous hony, standing much vpon wax; to haue a strong and rank smell, a bitter, hot and fiery taste; and withall, apt to crumble between the fingers. The best *Castoreum* & most effectual, is brought out of *Pontus* and *Galatia*: next to it is that of *Affricke* or *Barbarie*. The vertue of *Castoreum* is to prouoke sleepe, if a man hold it to his nose and smell thereto. If the head be annointed with *Castoreum* incorporat with oile of roses and *Harstrang*, it will procure sleep: so will it do alone by it selfe giuen in water to drinke: in which respect, proper it is for the frensie. And yet the perfume or vapor thereof will raise those that lie in a sleepe lethargie: like a suffumigation* or pessarie put vp into the natural parts of women, is soueraign for the rising of the mother, in which fit they lie as it were in a trance and out of the world. *Castoreum* giuen to the weight of two drams with *Peniroyall* in water to drinke, moueth womens monthly sickness, and forceth the afterbirth to come away. It

* *Palmarum*,
examinationes
Vel subditi.
V. practise
the contrary.

helpeth those that haue the dizziness or swimming of the braine, bee drawne backward with cramps, tremble and shake; are plucked with spasmes and convulsions, diseased in their sinews; troubled with the *Sciatica*, sick of a weak and feeble stomacke that keepeth nothing which it takes, and lieth rid of the palfie, if they be annointed throughly therewith in parts conuenient. Or if *Castoreum* be reduced into pouder, and together with the seed of *Agnus Castus*, be incorporat with vineger or oile of rose, and so reduced to the consistence of hony, which being taken as an electuarie, is singular not only for the former maladies, but also for the falling sickness: and if the same be giuen in drinke, it discusse the ventosities, appeaseth the wrings and torments of the belly, yea, and represseth the malice of any poisons. But in this case of poisons it ought to be prepared, mixed, and vsed diuersly, according to the sundry kinds thereof: for against the venome of scorpions it would be drunk in meere wine: to withstand the danger of the *Phalangia* and such venomous spiders, it ought to be giuen in honied wine especially, if the intention bee to cast vp the said poisons by vomit; or with *Rue*, if the drift and purpose be to hold and retain all still. To prevent the perill of the Lizards or venomous wormes *Chalcidice*, it should be taken in Myrtle wine. Against the sting of the horned serpent *Cerafies*, or the fierie vermine *Prester*, with *Panax* or *Rue* in wine. But generally for all other serpents, the only liquor to receiue it in, is wine. Two drams at a time is thought to be a sufficient dose of *Castor* it self, in any of these compositions; but of other drugs that are put thereto, there ought to be a proportion of the half, to wit, one dram. Moreover, a peculiar vertue it hath, if it be drunk in vineger, to resist the venomous gum *Ixias*, growing vpon the plant *Chamaeleon*: but soueraigne it is for the poison of the herb *Aconitum* or *Libard* bane, in milk or faire water. Against white *Ellebre* it is good to be taken with mead of honied water and sal-nitre. Also, if it be puluerized and incorporate with oile, a soueraigne remedy it is to ease the tooth-ach, if it be dropped or poured into the eare of the same side where the grieue is: but better it were to temper it with the iuice of Poppy for paine of the ears. Mix *Castoreum* with the best hony of *Attica*, and bring it into anie salu, it is passing good for to cleare the sight. Giuen in vineger, it staieth and keepeth downe the yex or hiccquet. Furthermore, the vrine of a Beuer is a good counterpoison: and therefore it goeth to the making of *Antidotes* and preseruatiues. But the best way of keeping it (as some think) is in the owne bladder.

CHAP. IIII.

¶ Of the Tortoise. The medicines taken from many fishes, and diuers observations to them pertaining.

SEmblably, Tortoises liue in two places, and haunt both land and waters. Their effectual properties besides are such as deserue like honour, as well in regard of their manifold vses in sumptuous buildings (whereby they carry a great price) as of their sundry vertues and operations which Nature hath giuen them: now of these Tortoises there be many kinds, to wit, land Tortoises, and sea Tortoises. Tortoises found in muddy waters & marraies: Tortoises also that keep in fresh riuer water; and these last named, some Greeke writers call *Emydes*. The flesh of land Tortoises serueth wel in perfumes & suffumigations, for so it is as good as a countercharm to put by and repell all sorceries and enchantments: a singular counterpoison also to resist any venome whatsoever. Great store of Tortoises be found in *Affricke*: where they vse to cut away the head and feet, and then employ the rest of the body as a soueraigne remedy against all poisons. If their flesh be eaten together with the broth wherein they are sodden, it is held to be very good for to discusse and scatter the wens called the kings euil, & to dissipat or resolute the hardnesse of the swelled spleene: likewise to cure the falling sickness, and to driue away the fits thereof. The blood of Tortoises clarifieth the eyesight & dispatcheth the cataracts, if they be annointed therewith. Many incorporate the said blood in meale, and keep them reduced into the forme of pills, which when need requireth, they giue in wine as a present help for the poyson of all serpents, spiders, and such like, yea, and the venome of toads. The gall of Tortoises mixt with *Atticke* hony, serueth to cure the fiery rednesse of the eyes, if they be annointed therewith: The same is good to be dropt into the wounds inflicted by the prick of scorpions. The ashes of the Tortoise shell incorporat with wine and oile and so wrought into a salu, heals the chaps & vlcers of the feet. The skales scraped lightly from the vpper part of the shell giuen in drinke, coole the

the heat of lust. And I maruell the more hereat, because the powder of the whole shell indeed hath the name to heat the appetite and desire to venery. As touching their vrin, I hold it impossible to meet with the same, vnlesse it be found in their bladder when they be cut in twaine. And yet the Magitians hold this to be one of the most rare things in the world, and that which worketh wonders, saying it is right soueraigne for the biting or stinging of the Apsis, howbeit, much more effectuall (say they) if punaises be mixed with it. Tortoise eggs dried and hardened, are good to be applied to the wens called the kings euill, to any exulcerations, caused either by extreame cold or burning: The same being soft, are singular to be supped off in the paine of the stomacke.

The flesh of sea Tortoises, mixed and incorporat with the flesh of frogs, is a soueraign remedy against the venome of Salamanders: neither is there any thing more contrary in nature to the Salamander, than is the Tortoise. The blood of the sea Tortoise serueth to recouer haire in the places naked and bare, by occasion of the disease called Alopecia: it riddeth away likewise the skales and dandruffe, yea, and healeth all the scalds of the head: but the same must dry vpon the head, and be washed off at leisure by litle and litle. If it be dropped into the eares with breaf-milk, it easeth their paine. If it be chewed or eaten, tempered with the fine flour of wheat, it cureth the falling sicknes. But for the better preparing and ordering of this blood in these cases, it ought to be mingled in 3 hemines of vineger, one hemine of wine put thereto, with an addition also of Barly meale, and the same tempered with vineger: of which composition the patient is to take and swallow down the quantity of a bean euery day, morning and euening; and after some daies past, in the euening only: this blood is likewise singular to be dropt into the mouths of those that be fallen of the epilepsie or falling sicknes, so the fit be but smal, for which purpose they must be forced to gape. In case of cramps & convulsions, the same is to be clysterized with Castoreum. Whosoever rubbeth their teeth with Tortoise blood, and vse so to do a whole yeare together, shal be freed from the pain therof for euer. If it be mixed with barley groats, and giuen to them that draw their winde short, it discusseth the cause of that difficultie; yea, helpeth such as cannot breathe but sitting vpright. The gall of Tortoises cleareth the eyesight, it doth subtilize at the cicatrices and films that grow in the eyes: the inflammation of the tonsils it represseth, assuageth the squinancy, and helpeth all the accidents of the mouth: and more particularly, a property it hath to heale the cankerous and corrosiue sores there breeding: as also to cure the inflammation of the genitoirs. The same conueied vp into the nostrils, fetcheth those again to themselves who are in a fit of the falling sicknesse, and setteth them vpright vpon their feet. And with the slough of a serpent incorporat in vineger, and dropt into the ears that run, it is an excellent medicine to scoure them. Some put a Bœufes gall among, together with the broth of the Tortoise flesh sodden, and an addition of a snakes slough in equall quantity; but first they teeth the said Tortoise a long while in wine. Moreouer, the gall of Tortoises mixed with hony, amendeth all the imperfections incident to the eies, if they bee annoiued therewith: yea, if it were a cataract, the gall of a sea Tortoise tempered with the blood of a riuier Tortoise and womans milk, riddeth and scoureth it away. The said gall is very proper to giue a yellow die or colour to womens haire. Against the poison of Salamanders, sufficient it is to drinke the broth or decoction of a Tortoise.

As touching those kind of Tortoises that liue and breed in mud and moorie waters, which I reckoned to be the third kind: broad they be and flat in the backe as well as vpon the brest: neither doth their shell arise arch-wise in manner of a vault: these are ill-favored to see to, and yet as Jouelleffe as they be, they are not without some medicinable vertues and remedies: for take 3 of them and throw them into a fire made of Vine twigs, or their cuttings; when their shells or co-ners begin to diuide in funder and part one from another, pull them hastily out of the fire, pluck the flesh out of their shells, seeth them in a gallon of water, with a little quantity of salt put thereto; thus let them boyle vntill a third part of the liquor be consumed: This broth or decoction if it be drunken, is thought to be soveraign for those that be troubled either with the palfie, gout, or paine of joints. The gall of these Tortoises purgeth also phlegmaticke humours and corrupt blood out of the body. And after that this medicine hath don his part, and set the belly in a loosenesse, a draught of cold water knitteth it againe, and staeth all.

To come now vnto the fourth kind of Tortoises which keepe in freſh riuers, they afford an excellent remedy for to rid away a quartane ague, in this manner prepared and vſed: firſt take
certaine

A certain tortoises, diuide one piece from another & take out the fat within, stamp the same with the herb called houseleek and Linseed, incorporate all into an ointment; let the patients be anointed therewith before the fit commeth, all ouer the body saue the head only, and when they be well lapped with cloathes about them, giue them some hot drink: This (I say) is thought to be a soueraigne medicine against the said ague. But a tortoise to be applied for this purpose, ought to be taken at the full of the moone, because there may be more fat found in her. Mary the sick body must not be anointed (men say) at any time but two daies after. The blood of tortoises which are of this fourth kinde, if it be dropped on the head by way of embrochation, appeaseth the head-ach that vseth to return and come often by fits: the same also applied vnto the kings euill cureth it. Some are of opinion, that the better to let tortoises blood, and according to art, (as requisit it is in such cases of physick) they ought to be laid along with their bellies vpward, and so their heads to be cut off with a brasen knife: and then they giue order to receiue the blood in a new earthen vessel neuer occupied before: which blood is excellent to anoint the shingles, or any kind of *S. Anthonies* fire: likewise the running scalls of the head, and also werts. The same Authors doe promise and warrant, That with the dung of all sorts of Tortoises, the biles called Pani may be discussed and resolu'd. And although it be incredible and not to be spoken, yet some there be who haue written, That any ship maketh way more slowly at Sea, that carrieth within it the right foot of a Tortoise. And thus much shall suffice as touching Tortoises.

C And now from henceforth as touching the fishes and other water creatures, I meane to discourse of them and their medicinable properties, according to euery disease which they serue for. And yet I am not ignorant, that many a one will be desirous to know all at once, the vertues of each liuing creature, which indeed maketh them to seem more admirable a great deal. Howbeit this course that I meane to take, I hold to be more expedient and profitable to this life; namely, to set downe receipts and remedies digested by order, of each disease and malady: considering that one thing may be good for this Patient, and another for that; and some medicines are sooner found and gotten than others.

CHAP. V.

¶ Sundry medicines and receipts taken from those living creatures which conuerse in waters, and the same digested orderly into diseases. And in the first place, such as be appropriat to poisons and venomous beasts.

Heretofore haue I written of venomous honey, and the countries wherein such is gathered and made: now if any be poisoned therewith, good it is to eat the fish called Arata. i. a Guilt-head: Or say one be glutted with pure hony, or haue taken a surfet thereof, being of all other most dangerous, whereby the appetite is clean gon, and the stomack oppressed with crudities: for to preuent farther danger, *Pelopi* ordained for a special antidote or defensive the meat of tortoises boiled, after the head, feet, and taile were cut away. But *Apelles* in this case attributeth as much to *Scincus*. Now what this *Scincus* is I haue declared heretofore. Shewed also I haue oftentimes in many places, how venomous the monthly fleas of women are, but yet (as hath bin said already) the fish called a Barble is a singular remedy against the poison thereof: like as, both applied outwardly in a liniment, and taken inwardly as meat, it is a foueraigne thing for the prick of the Puffin or Forkfish, of Scorpions as well of the land as the sea, and of the malicious spiders Phalangia. The ashes of a Barble fresh taken and calcined, is a generall counterpoison, but more particularly it helpeth those who haue eatendeadly Mushrooms. Also it is said, That if the fish called a Sea-star, wel besmeared and anointed all ouer with the blood of a Fox, be fastned to the lintell, or hanged to the brasen naile or ring of a dore, it will put by all charmes, forceries, and witchcrafts, that none shall come into the house, or if any doe, yet they shall not worke any harme. As for the prick or sting of sea-dragons and scorpions, a cataplasme of Sea-stars flesh applied thereto healeth them: so it doth also the venomous bite of spiders. In sum, the broth of their decoction is thought to be a foueraigne remedie against all

manner of poisons, whether it be that a man haue taken it by the mouth, or be stung and bitten G
by any venomous beast: in Gales they are not without their medicinable vertues: for to eat salt

by any venomous beast: As touching fishes kept in salt, they are not without their medicinable vertues: for to eat salt fish is very good for them who are stricken with serpents, or otherwise bitten or stung by any venomous beast, so they drink to it oftsoons pure wine of the grape, and withal be sure to cast vp again by vomit toward euening their foresaid meat which they did eat that day. The same salt fish more peculiarly serueth for them who haue bin hurt and wounded with the venomous Lizard * Chalcis, the horned serpent Cerafcs, or the venomous horn-fretters called Sepes: being otherwise singular to heale those who haue bin smitten with the serpent Elops, or bitten with the thirty tooth of the worrne Dipfas: but if a man be pricked by the Scorpion, good it is for him to feed fully of saltfish, howbeit in no wise to vomit the same vp again, but rather to indure the drinesse & thirst occasioned thereby: and many hold, that it is a proper remedy to apply to the fore a cataplasme made of the foresaid saltfish. Verily against the biting of Crocodils there is not thought to be a more present and effectual remedy, than it. But to grow vnto particulars, Sports salted haue a special propertie to heal the biting of the beetle or venomous fly Prester: also in case a man be bitten with a mad dog, it is very good to lay salt fish vnto the fore; yea although the wound were not cauterised with a red hot iron, nor the patients body emptied by a clystire, this cataplasme alone of saltfish is thought sufficient to cure it: the same foked in vinegar serueth also to be laid vnto the place that is hurt with a sea dragon. Of the same operation and effect is a * square piece or canton of the fish Tuny salted and condiied. And since I haue named the sea- Dragon, this would be noted, That himself outwardly applied, is a remedie for the venom inflicted by the prick or fin of his ridge bone, wherewith his manner is to strike: yea & his very brains also, if you take nothing els, are as effectual. The decoction of sea frogs fodder in wine and vineger, is a souerain drink for all poisons, but especially for the venome of the hedge toad and salamander. As for the frogs of riuers and fresh waters, if a man either eat the flesh or drink the broth wherin they were sodden, he shal find it very good against the poison of the sea-hare, or the sting of the serpents abouenamed, but more particularly against the prick of the scorpions they would be boyled in wine. Moreover, *Democritus* saith, That if a man take out the tongue of a sea-frog aliue, so that no other part thereof stick therto, & after he hath let the frog go again into the water, apply the said tongue vnto the left pap of a woman while the sleepes, in the very place where the heart beateth, she shall answer truly and directly in her sleepe, to any interrogatorie or question that is put vnto her. But the magitions tell more wonders than fo of the frog, which if they be true, certes frogs were more commodious & profitable to a Commonwealth, than all the positive written lawes that we haue. For they would make vs beleue, That if the husband take a frog and spit her (as it were) a length vpon a reed, so as it go in at the skut or nare behinde, and come forth againe at the mouth, and then pricke the said reed or broch in the menstruall bloud of his wife, she shall neuer haue minde afterwards to entertaine any adulterers, but detest and loath that naughty kinde of life. Certaine it is, That if frogs flesh be put within a net, or that a booke be baited therewith, Purple fishes aboue all others will come flocking thither. Moreover, it is commonly said, That a Frog hath a double liuer, the which ought to be layd before Ants, and lookewhich of the two lobes or flaps thereof they make vnto, and seeme to gnaw, the same is a most singular antidote against all poysons whatsoever.

Some frogs there be that liue only among bushes and in hedges, which thereupon we call in Latine by the name of * Rubetæ: and the Greeks term them Phrynos: the biggest they are of all other, with two knubs bearing out in their front like horns, and full of poison they be. They that write of these toads, striue a-vie, who shal write most wonders of them: for some say, that if one of them be brought into a place of concourse where people are in great number assembled, they shall be all hushed and not a word among them. They affirme also, that there is one little bone in their right side, which if it be thrown into a pan of seething water, the vessel will coole presently, and boile no more until it be taken forth again. Now this bone (say they) is found by this means: if a man take one of these venomous frogs or toads, and cast it into a nest of Ants, for to be eaten and deuoured by them, and looke when they haue gnawed away the flesh to the very bones, each bone one after another is to be put into a kettle seething vpon the fire, and so

A it will soon be known which is the good by the effect aforesaid. There is another such like bone (by their saying) in the left side, as it is with the water that hath done nothing, it will seeme to boile and waite again presently. This bone (for sooth) is called Appocynon, and why so? because ywis, there is not a thing more powerful to appeale and repress the violence and furie of curst dogs than it. They report moreover, that it inciteth unto wanton lous, and yet nathelesse if a cup of drinke be spiced therewith, it will breed debate and quarrell among those that drinke thereof also, who soever casteth it about him, shall be provoked to deadly lust, and contrarywise, if the bone in the right side be likewise used, it will coole as much, and take downe the pride of flesh and heat of concupiscence. Others there be who are of opinion, that if it bee but worn about one, either hanging to the necke, or fastened vnto any other part of the body, infolded within a little piece of a new lambs skin, it will cure a quartan ague, or any other fener sides. The same also to repress the affection of loue. Moreover, they beare vs in hand, that the milke of these teades is a conuersion against their owne venome, but the heart (say they) is much more effectfull.

There is a certaine kind of Serpent or Snake haunting the water, called in Latine Colubus, the fat and gall of which Serpent if they haue about them who vse to hunt after Crocodiles, it is wonderfull (say they) how they be armed and defended against them, for they will not attempt to turne againe vpon the hunters and giue any assault, and yet of greater effect, and force they shall finde it, in case there be incorporated withall, the pond-weed or water-speekel called Potamogeton.

C The ruier Creifishes, if they be taken fresh, stamped and giuen in water to drinke, are sou-
raigne against all poisons: so is their ashes also a counterpoison; but more particularly against
the sting or pricke of Scorpions; if it be drunke in asses milke; or for default thereof, in goats
milke, or any other whatfoeuer: but then the patient ought to drinke wine vpon it. And verily,
so aduerse and contrary are they vnto Scorpions, that if they be punned with Basill into a cer-
taine composition, it will kill them, if the same be but laid vpon them. Of the same force they
are against the sting or biting of any other venomous beast besides, and more especially of the
pernicious hardihearted Scytale, of snakes, sea hares, and hedge-hogs. Many there be who vse to
saue the ashes of Creifishes calcined, as a soueraigne remedy for all such as be in danger to fall
into the symptome of fearfulness to drinke, incident to thole that are bitten by mad-dogs: some
D adde thereto the herbe Gentian, and giue both together in wine to drinke: but if the sayd symp-
tome of Hydrophobie haue surprized them already, then the said ashes or powder ought to bee
reduced (by the meanes of wine) into trofches or pills, which they prescribe vnto their patients
for to be swallowed downe. The Magicians proceed farther, and affirme, that if a man take ten
Creifishes and tie them all together with a good bunch or handfull of basill, all the Scorpions
that be thereabout, will assemble together to that one place; and they giue order, that if a man
be hurt already with a scorpion, there should be a cataplasme made of them, or at least wayes of
their ashes mixed with Basill, and so applied to the place affected. The sea-crabs are nothing so
good of operation in all these causes, as the Land-crabs or Creifishes aforesaid, according as
Thrasillius mine Authour doth report. Howbeit, hee sayth neuerthelesse, that there are no such
E enemies to serpents, as Crabs: and he affirmeth moreouer, That if swine be stung or hurt by ser-
pents, they helpe and cure themselues by feeding vpon sea Crabs onely, and seeke for no o-
ther helpe or remedie. Hee addeth furthermore, and avoucheth, that serpents are ill at ease, yea
and much tormented with paine when the Sunne is in the signe of the crab, called commonly
Cancer.

To come now to the riuer shell-snails : most certaine it is, that their flesh, whether it be raw or boyled, is singular good to resist the venome of scorpions inflicted by their prick or sting : and some there be, who for to haue them in a readinesse to serue in those cases, keep them in salt : and they ordaine them to be applied vnto the very fore it seife, occasioned by their foresayd sting.

As for the [black] fishes named Coracini, they are peculiar and appropriate vnto the river Nilus: howsoeuer my determination and purpose is to deliuer medicines profitable and beneficiall to all parts of the earth in general. Their flesh is good to be applied vnto the fores caused by scorpions.

The Sea-swine or Porpisc, hath prickly fins vpon his back, and those are counted amongst the venomous things that the sea yeeldeth, putting them to much paine that are wounded or hurt thereby: but what help therfore, surely the very muddy time that gathereth about the body of the same fish, is the onely remedy.

The Sea-calf, otherwise named a Seale, hath a certaine grease, wherewith it is good to anoint the face or visage of those, who by reason that they are bitten with a mad dog, are afraid to drink and cannot away with water: but it will worke the better, if there be mingled therewith the marrow of an Hyena, the oile of the Mastich trees and wax, that all may be reduced into a liniment.

As for the biting of a Lamprey, there is not a better thing to heal it than the ashes of a lampreys head. The Puffin likewise or Fork-fish, cureth the wound that himselfe inflicted, namely, if the place be annointed with his own ashes, tempered with vinegar, or mixt with the ashes of any other fish. If a man would make meat of this fish, there ought to be taken out of the backe whatsoeuer is there found like to saffron: likewise the head all and whole would be taken away, and yet to maintain and keep the tast thereof, the same must be washed but a little and no more than all shell fishes, for otherwise all the pleasantness in the eating would be cleane gone.

The mischieuous venome of the sea-hare, [called otherwise Inbriago] is quenched clean and mortified, by taking the flesh of the sea-Horse any way in drinke.

Against the poison of deadly dwale, the meat of sea-vrchins is soueraigne: & whoeuer haue drunk the dangerous juice of * Carpasum, find much ease and help especially by supping their decoction. To conclude, the broth of sea-crabs likewise taken, is thought to be effectual against the foresaid dwale named Dorycnium.

CHAP. VI.

¶ Of oysters and Purple shell-fishes: of Sea-mosses, or Reits: and the remedies which they afford.

Moreover, Oysters haue a speciall vertue to resist the venome of the sea-hare. And albeit I haue written already of oysters, yet me thinks I cannot speak sufficiently of them, seeing that for these many yeres they haue bin held for the principal dieth & daintiest meat that can be serued vp to the table. This fish loneth to haue fresh water, & ioieth to be in those coasts where most riuers do run into the sea: which is the reason, few of them are found in the deep, called therupon Pelagia; and those thrive not, but are in comparison very small. Howbeit, they breed and ingender otherwhiles among rocks, & in such holes which want the recourse of sweet waters: as for example, about Grynna and Myrina. They wax big and full according to the encrease of the Moon, as I haue shewed already in my treatise of creatures liuing in waters: but principally about the spring prime, when they be full of a certain humour or moisture like vnto milk, and in those shallow places where the sun pearceeth with his beams to the very bottom of the water. And this seemeth to be the reason, that in other coasts and parts of the sea, they be found far lesse: for shade hindreth their growth, and for want of the cheerefull sight of the sunne, they haue lesse appetite to meat & feed not: moreover, this is to be noted, that oysters differ one from another in colour. In Spaine they be reddish, whereas in Sclauonia they be brown and dusky: but about the cape Circeij in Italy, their shell and flesh both, be blacke. In what coast or countrey soeuer they be found, the best and principall those are held to be, which be massive and compact; not glib and slippery without, with their owne humour and moisture: and rather bee they chosen which are thicke, than broad and flat: such also as bee taken neither in muddy nor yet in sandie places, but vpon the sound and firme ground in the bottome, hauing their white meat trussed vp short and round, and not flaggie as flesh: the same not jagged and fringed about in the edges with smal strings, but lying all close vnited together as it were couched within the belly. They that be more expert and practised in the choice of oysters, adde one marke more to chuse them by, namely, if there be a purple thread or string that compasseth them about the edges: and by this signe they know the oysters of the best kind and race, from others, and call them by a proper name Calliblephara. Oysters delight (as I may so say) to traueil into strange quarters, to be transported from their naturall seat into other vnkown waters. Thus the oysters bred about Brindis, and remoued from thence to the lake Auernus; and beeing there fed, are suppo-

posed by that means to keep still their own native juice and humidity, and besides to gain nouriture by the moisture of Lucrinus. Thus much as touching the substance and body of Oysters: it remaineth now to speake of those parts and tractes where the best oysters are to be had; to the end that such coasts may not be defrauded of the honour due and appertaining vnto them. But of this point speake I will by the tongue of another, and alledge his speech who is thought to haue written hereof with best judgement of any man in our time. These therefore bee the verie words of Mutianus, which I will put downe as followes: The oysters (quoth he) of Cyzicum taken about the straights of Callipolis, be the fairest of all other, and bigger than those which are fed or bred in the lake Lucrinus, sweeter than those of Brittain, more pleasant in the mouth than the Edulian, quicker in tast than those of Leptis, fuller than the Lucenian, drier than those of Coryphanta, more tender than the Istrian, and last of all, whiter than the oyster of Circeij: and yet there haue not bin found any oysters either more sweet or tender than these last named. The Historiographers who wrote of Alexanders voiaiges and exploits, haue left in writing, that within the Indian sea there be oysters found a foot long euery way. Moreouer, there is among vs a certain Nomenclator or Controller belonging to one of our prodigall and wastful spendthrifts here at Rome, who haue giuen a proper name to certain oysters, and termed them Tridacna: his desire was by that significant name, to expresse thus much, That they were so big as that they would make three good bits or mouths-full a piece.

Now proceed I will to their medicinable vertues, & before I go any further, in this very place set down how far forth they serue in physick. First and formost, they be the only meat to comfort and refresh a decayed stomack: they recover an appetite that was cleane gone. But see the practise of our delicat wantons! to coole oysters forsooth, they must needs whelm & couer them all ouer with snow, which is as much as to bring the tops of mountaines and bottom of the Sea together, and make a confused medley of all. This good moreover do oysters, that they gently loose the belly, and make a body soluble: seeth the same with honied wine, they cure the Tiflome, which is an inordinat and bootlesse desire to the stoole without doing any thing, especially if the tiwil (which is the place affected) be not exulcerat: oysters likewise so prepared, cleanse and mundifie the vlcers of the bladder: eat them in their shel with their water, as they came closed and shut from the sea, you shall find them wondrous good for any rheumes or distillations. The ashes of an oyster shell calcined, and incorporat with honey, be singular for the paine of the vula, and assuage the inflammation of the tonsils: semblably, they repress the swelling kernels that rise vnder the ears, assuage the biles and botches called Pani, mortifie the hard tumours of womens breasts, and heal the sores or scalls of the head, if they be applied accordingly with water: and in the same order prepared, they rid away wrinkles, and make womens skin to lie smooth and euen. These ashes are a soueraigne powder to be cast vpon any place that is raw, by reason of a burne or scalding: and the same is commended for an excellent dentifrice to cleanse & whiten the teeth withall: temper the said ashes with vinegar, it killeth the itch, and healeth angrie wheales; the small pocks also and meazils. Oysters punned raw and reduced into a cataplasme, heale the kings euill and kibed heels, if they be applied accordingly.

Moreover, the Shell-fishes called Purples, are very good against poison. As for the reits Kilpe, Tangle, & such like sea-weeds, Nicander saith, they are as good as treacle. Sundry sorts there be of these reits, going vnder the name of Alga, as I haue already declared: some are long leaved, some large, others of a reddish colour, and some haue curled and jagged leaues: the best simply of all others, be they of the Island Creta; which grow near the ground vpon rocks; and namely for to dye wooll & woollen cloth; for they set so sure a colour, as neuer will shed or be washed off afterwards. Nicander giueth direction, to take the said treacle in wine

CHAP. VII.

¶ Medicines against the shedding of haire. For to colour the haire of the head. Also against the accidents of the eares, teeth, and visage.

IF by occasion of some infirmity the haire be fallen off or grow very thin, the ashes of the fish called the Sea-horse, mingled with sal-nitre and swines grease, or applied simply with vinegar, replenish the bare places with new haire, and cause it to come vp thicke again: and for to apply such medicines for this purpose, the powder of a cuttle bone prepareth the skinne well before-hand.

438
**Muris marini* hand. Also the ashes of the sea-Tortoise incorporat with oile of a sea-vrchin likewise burnt and calcined flesh and all together as also the gall of a scorpion, be appropriat medicines to recover haire that was lost. In like maner take the ashes of 3 frogs burnt together alieue in an earthen pot, meddle them with hony, it is a good medicine to cause haire to grow: but the operation will be the better, in case the same be tempered with liquid pitch or tar. If one bee disposed to colour the haire of the head black, let him take horse-leeches which haue putrified and been resolved together in some grosse red wine for the space of 60 daies, he shall find this to be an excellent medicine. Others there be who giue order, to put as many horse-leeches as a sextar will hold, in two sextars of vineger, and let them putrifie within a vessell of lead as many daies together, and when they be reduced into the form of a liniment, to annoint the haire in the sunshiner for the same purpose. And *Sernatius* attributeth so much power vnto this composition, that vnto lesse they that haue the annointing of the haire with it hold oile in their mouths all the while, their teeth also (by his saying) who haue the doing of it, wil turn black. The ashes of Burrets or Purples shels incorporat in hony, serue passing well in a liniment to heale scald heads: and the powder of the foresaid fish shels (although they be not burnt and calcined) tempered with water, is as good for the head-ach. Of the same operation is Castoreum, incorporat with Harstrang in oile rosat. The fat or greafe of all fishes whatsoeuer, as well those of the sea as riuers, beeing dissolved in oile and tempered in honey, is soueraigne for to cleare the eyes: and of the like effect is Castoreum applied with hony. The gall of the fish Callionymus, healeth the cicatrices or scars that ouergrow the skin about them: and the same careth & consumeth the excrescence of superfluous flesh in the corners of the eies. And verily there is not a fish that hath more gall than it, as testifieth *Menander* the Poet in his comedies: the same fish is otherwise called **V-than* or *scopos*, by reason of the eies which he hath in the vppermost part of his head. Semblably the gall of the black fish *Coracinus* quickneth the eie-sight. Also the gall of the reddish sea-scorpions, mixt with old wine or the best bony of Athens, serueth to discusse the filmes of the eies like to breed a cataract: and thrice must the eies be annointed therewith, letting a day goe euener betweene. The same cure serueth likewise to take away the pearle in the eie. As for Barbel, it is commonly said, that if one do feed ordinarily vpon them, hee shall sensibly feeble his eies to decay and wax dim thereby. The sea-hare it selfe verily is venomous; but the ashes keep the disorderly and hurtfull haire of the eie-lids from growing any more, if they be once pluckt vp by the roots: and for this purpose, the least of this kind are the best. In like manner, the little Scallop kept in salt, and stamp together with the rosine or oile of cedar: the small frogs likewise which vsually they call *Diopetes* and *Calamita*, haue the like effect to hinder the coming vp of hairs in the eie-lids, after they be once pulled vp; in case their bloud be tempered with the gum of the vine-tree, and therewith the edges of the said eie-lids be annointed. The swelling and rednesse of the eies is by nothing better delaied and discused, than by a liniment made of a cuttle bone puluerized and mixt with womans milk. And in very truth, the said cuttle bone simply by it selfe, cureth the asperity and roughnesse of the said eie-lids. But to worke this cure, the chirurghion vseth to turne vp the said eie-lids, and to apply therto the medicine, which he suffereth not to stay there long, but taketh it away within awhile: he annointeth the place also with oile rosat, and ouer night laieth thereto white-bread crums [with breest milke] for to assuage the paine. The selfe same shell or couer of the cuttle-fish beaten to powder and brought into a liniment with vineger, cureth those who can see neuer a whit towards night. The ashes of the sayd cuttle-bone draw forth the scales or films which grow in the eies: the same incorporat with hony, heale the skars of the eies; but tempered with salt or brasse-ore, of each one dram, they rid away the pin and web growing in the eie: the same help horses of the haw that offendeth their eies. Some say moreouer, that the little bones within the cuttle, if they bee stamped to powder heale the eie-lids of any fore or accident befalling vnto them. The sea-vrchins flesh applied with vineger, taketh away the accidents of the eies called *Epinyctides*. The Magirians giue direction to burne the same with vipers skins and frogs, and to spice the drink with the ashes that come thereof, assuring those who vse to drink the same, that they shall haue a very cleare sight. [A fish there is named *Ichthyocolla*, which hath a glewlish skin, and the very glue that is made thereof, is likewise called *Ichthyocolla*. The same glue taketh away the night-foes, commonly named in Greek *Epinyctides*. Some affirm, That the said glue *Ichthyocolla* is made of the belly and not of the skin of the said fish, like as Bulls glue. This fish glue is thought to be best that

A is brought out of Pontus : the same also is white without any veines, strings, or scales, and verie quickly melteth and resolueth. Now the same ought first to be cut or shred small, and then to lie infused or in steep a whole day and a night in water or vineger, which done, to be punned and beaten with the pebbles found about the sea-shore, that the same may the sooner melt and dissolve. This glue thus ordered, is held to be soueraigne for the head ach, and a good thing to enter into those medicines or compositions which are deuised to smoothe the skin & rid away the wrinkles. Take the right eie of a frog, lap it within a piece of selfe russet cloth (such as is made of black wooll as it came in the fleece from the sheep) and hang it about the neck, it cureth the right eie, if it be inflamed or bleared. And if the left eie be so affected, do the like by the contrary eie of the said frog, &c. Now, if it were possible to pluck out these eies as the frog is ingendering, it would heale also the white cicatrices or scars in the eie, if it were hung about the necke of the patient in like sort within an egge-shell. The rest of the frogs flesh applied to the eie, sucketh out and consumeth the blood that is congealed vnder the tunicles of the eie, and lies there black and blew. They asseme moreouer, That the eies of a crab or crafish being hanged about the neck, are a soueraigne remedy for bleared eies.

the neck, are a souveraigne remedy for bleared eyes.
A little frog there is, delighting to liue most among grasse & in * reed plots : mute the same
is and neuer croaketh, green also of colour: if kine or oxen chance to swallow one of them down
with their grasse, it causeth them to swell in the belly, as if they were dew blown. And yet (they
say) that if the flime or moisture wherewith their bodies be charged outwardly, be scraped off
with the edge of some penknife, it cleareth the sight, if the eyes be annoiued therewith. As for
C who take 15 frogs, pricke them with a rish, & draw the same through them, that they may hang
thereto; which done, they put them in a new earthen pot: and the humour or moisture that passeth
from them in this manner, they temper with the juice or liquor which in manner of a gum
issueth out of the whitewine Brionie, wherewith they keep the eyelids from hauing any haire
growing vpon them. But first they pluck vp those disorderly haire which grew there to offend
and hurt the eyes: & with a fine needle point drop the foresaid liquor into the very places where
the haire were fetched out by the roots. *Mezes* the Chyrurgian deuised another depilatory for
to hinder the growing of hairs, made of frogs which he killed in vineger, and permitted them
therin to putrifie and resolve into moisture: and for this purpose his manner was to take many
D fresh frogs, euen as they were ingendred in any rain that fel during the Autumne. The same depilatory
effect, the ashes of Horse-leeches are supposed to haue, if they bee reduced into a liment
with vineger, and vsed accordingly: now must they be burnt and calcined in a new earthen
vessel that neuer before was occupied. And of the like operation is the liuer of the sea-fish Tæ-
nia, if the same bee dried, and thereof the weight of foure deniers Romane incorporate in oile of
Cedar to the forme of a liment, for to annoiue the haire of the eye-lids by the space of nine
moneths together.

moneths together.

The fresh gall of a Ray or Skeat, yea, and the same preserved and kept long in old wine, is an excellent medicine for the eares: so is the gall likewise of the fish * Bancus, which some call Myxon: also of Callionymus the fish aforesaid, if it be dropt into the eares with oile of rose: semblably Castoreum with the juice of Poppie. There be also in the sea certaine creepers ingendred, called Pedunculi, i. sea-lice, which being stamped and tempered with vinegar, they give counsell to drop into the eares. Also a lock of wooll died in the bloud of the purple shell-fish Conchylium, of it selfe alone is a very good thing to be applied to the eares: howbeit, some doe wet the same in vinegar and salniter mixed together. But the foueraigne remedy in the opinion of most Physitians for any grievance and infirmity of the eares, is this, namely, *Recipe* of the best sauce or pickle called Garum Sociorum that may be gotten, one cyath, of hony one cyath and an halfe, of vinegar one cyath, seeth them all together gently over a soft fire in a new por, eistsoon skimming it in the boiling with a feather; and when it hath left casting up a scum and is sufficiently purified, take it from the fire: and of this decoction warm drop into the pained eares. If the eares be swelled withall, they ordain and prescribe to mitigate & assuage the same first, with the juice of Coriander. The fat of frogs dropt into the eares, allaieth their paine presently. The juice or decoction of crafishes incorporat with fine Barly meale, is a singular and most effectuall salve to heale the wounds of the eares. As for swellings and inflammations rising behind the eares, there is not a better thing to cure them, than to apply therto the ashes of Burrets shells tempered with hony.

hony, or of the Purples Conchylia, with honied wine.

If the teethe ake, the ready means to assuage them, is to scarifie the gums and let them bloud
 with the sharp bones of the sea-dragon : and withall, to make a collution with the brains of the
 sea dogfish boiled in oile and faued for the purpose, to wash the mouth and teeth therewith once
 in a yere. Likewise in the paine of the teeth, found it is most soueraigne to scarifie the gums with
 the prickly bone or fin of the Puffin or Forkfish, vntill they bleed againe. The same also beeing
 puluerized, brought into a liniment with white Ellebore, and applied to the teeth, causeth them
 to fall out of the head without any great paine. Moreover, the ashes of salt fish burnt in a new
 earthen vessell, and mixt with the powder of the marble stone, is reckoned among the remedies
 for the teeth. In like maner the quadrants or square cantons of the old Tuny fish, burnt to a cole
 in a new earthen pan, and afterward beaten to powder, are thought to be good for the tooth-ach. H
 Of the like operation and effect (they say) be the pricks and fins of all kindes of salt fish, if they
 be first burnt to a coale, then puluerized, and therewith the teeth well rubbed. Furthermore, to
 make a collution to wash the teeth withall, and to hold the liquor in the mouth, some seeth
 frogs in vinegar, with this proportion, that to euery frog they take one hemine of vinegar. But
 because many a mans stomack lothed & abhorred such a medicin, *Salustius Dionysius* found the
 means to hang many of them by the hinder legs ouer the vessell or pan of seething vinegar, that
 out of their mouth there might fall the humor within their bodies into the said vinegar. But
 to those who had good stomacks & were of stronger complexions, he prescribed to eat the very
 frogs broth & all wherein they were sodden. And in very truth, many are of this opinion, that if
 the grinders and great jaw teeth do ake, this is a speciall medicine for them, but in case they be
 loose in the head, then the best way to confirm and set them fast, is a collution with the vinegar
 afore said. And for this purpose some there be, who after they haue cut off the feet of 2 frogs, lay
 their bodies to infuse and steep in one hemine of wine, and so aduise their patients to wash their
 vnsteedy teeth with the said infusion. Others apply them whole as they be, legs and al outwardly
 to the chawes, and keep them fast thereto. Whereas some again seeth ten of them in 3 sextars
 of vinegar, vntill a third part of the liquor be consumed, and with this decoction thinke to fasten
 the teeth sure that shake in their sockets. Moreover, others you shall haue who take the hearts
 of 36 frogs, and bake or boile them in one sextar of old oile vnder a pan or ouen of brasse ; the
 graue or liquor whereof they poured into the eare of that side where the cheek or jaw doth ake ;
 whereas many others besides seeth the liuer of a frog, and when they haue stamped and incorporat
 it with hony, put it into the hollow teeth, or apply it thereto. But all these medicines aboue-
 sayd you must thinke to be more effectual, if they be made of sea-frogs. Now if the teethe bee
 worne eaten and stinke withall, they giue order to dry a hundred of them in an ouen all night
 long : afterwards to put vnto them as much salt in proportion as they cometo in weight, and
 therewith to rub the said faulty teeth. There is a kind of serpent or water-snake called in Latine
 Coluber, and of the Greeks Enhydrys : diuers there be, who with foure of the vpper teeth of this
 serpent, scarifie the gums of the vpper chaw, in case the teeth therin do ake : and semblably with
 foure of the nether teeth, if the other bee in paine : and yet some there bee who content them-
 selues with the eye-tooth onely. They vse also the ashes of Sea-crabs, and no maruell : for the
 ashes of Burrets is a dentifrice well knowne for to keepe the teeth cleane, and make them neat
 and white.

The fat of a sea-Calf or Seale taketh away the foule tetter called Lichenes, and the filthy leprosie: so do the ashes of Lampreys, if the same be incorporat with hony to the weight of 3 oboli. The liuer also of the Puffin boiled in oile. Finally, the ashes of a sea Horse and a Dolphin mixt with water, so that the part affected be well rubbed withall vntill it blister. Now, when it is thus exulcerat, it must be followed with that manner of cure which is appropriat thereto, and namely, vntill it be healed and skinned againe. Some take the liuer of a Dolphin, and fry or torrifie it in an earthen pan, vntill there come from it a kind of greafe in manner of oile, & therewith anoint the patients in the cases abovesaid.

If women desire to be rid of the foule freckles, spots, and morpew that do injury vnto their beautie; if they would looke young, and haue their skin plump and void of all riuels, let them take the ashes of Burrets and purple shels calcined, incorporate the same with honey into the form of a liniment: within one weeks space if they ply it with anointing, they shal see the effect thereof; namely, the skin cleare and neat, euē and smooth without wrinkles, & the cheekes

not hollow, but faire and full. Mary upon the 8 day they must not forget to foment and bath the place with the white of an egge wel beaten. Among the kinds of Burreis called Murice^s, are to be ranged those shell-fishes which the Greeks some call Colycia, others Corythia, shaped in the shell like to the rest in manner of a turbant, but that they be far lesse, howbeit more effectual: for that besides the other properties abovementioned, this speciall gift they haue, to maintaine a sweet breath. As for the fish or glue called Ichthyocolia, it hath vertue to lay the skin even without ridels, and to make it rise and appear fresh, but then it ought to boile in water the space of 4 houres afterwards to be stamped, * strained, and wrought to the liquid consistence of hony * Colata. and no more. Thus prepared, it must be put vp into a new vessell neuer occupied, & there kept. When time serues to vse it, to every 4 drams weight thereof proportion two of brimstone of Orchanet as much of litharge of flisser 8 drams: put them all together, and stampe them, with some sprinkling of water among. Herewith let the face bee annointed, and after foure houres wash it off againe. For the spots and pimples in the face, called Lentils, as also for all other deformities, the ashes of Cuttill bones are thought singular, if the skin be rubbed therewith: and the same consume the excrecence of proud and rank fleshy like as they dry vp any moist and rheumaticke vlcers.

CHAP. VIII.

¶ *Diners receipts, set downe disorderly one with another, for sundry maladies.*

ONe Frog boiled in five hemines of sea-water, is singular to cause the scurfe of the mange or wild scab to fall off: but sodden so long it must be, vntill the decoction bee risen to the height of honny.

There is ingendred in the sea also that which is called Halcyoneum, made as some thinke of the nests of the birds Halcyones and Ceyces: but as others suppose, of the filthy some of the sea thickened and indurated; and according to the opinion of some, it proceedeth from the muddie slime or a certaine * hoary dry scum or froth of the sea. Foure kinds there bee of it. The first of an ash colour, thick and massie, of a quick and hot smell. The second is soft and more mild, fauoring in manner like to sea weeds. The third resembleth the whiter kinde of checquer worke in marquettry. The fourth is more hollow and fuller of holes in maner of a pumisth stone, & in that respect resembleth a rotten sponge, inclining much to the colour of purple: and this is simply the best, called also by the name of Halcyoneum Milesum; yet in this kind the whiter that it is the worse it is to be liked. The property of them all in generality, is to exulcerat and mundifie. Vsed they are being torrifed, euen without any oile. Wonderfull is their operation, if they bee tempered with Lupines, and the weight of two oboli in sulphur, for to take away the wilde scab or leprosie, the foule tectars Lichenes, and the pimples or spors of the skin called Lentils. Halcyoneum also is commonly emploied about the scars or thick filmes appearing in the eyes. Andreas the Physitian vsed much the ashes of a sea-crab incorporat with oile in curing the leprosie. Attalus occupied as vsually the fat of a fresh Tuny, bew taken, for the healing of vlcers. The pickle of Lampreies, together with the ashes of their heads calcined, and brought into a liniment with hony, healeth the kings euill. And many are of opinion, that to prick the wennes named the Kings euill aforesaid, with the small bone or pricke that sticketh in the tale of that sea fish which is called * Rana marina, with this gage and rule of the hand that it wound not deep, is very good for that disease: but the same must be done euery day vntil they bee thoroughly cured and whole. Of the same operation is the sharp prick in a Puffen: of the sea-hare also applied to them, so as neither the one nor the other be suffered to lie long to the place, but bee soone renewed. Also the shelly skin of the sea-Vrchin stamped to powder and brought into a liniment with vineger: as also the ashes of the sea Scolopendre incorporat with honey: and the riuier crabs fish either puluerized or calcined, and the dust or ashes thereof likewise tempered with honey, are good to be applied to the same disease. Wonderfull effectuall be the bones also of the cuttill fish beaten to powder, and with old swines greafe brought into the form of a liniment: and in this manner they apply this medicine to the tumors behind the ears: like as the liuers of the sea fish Scarus. Moreover, the sheards of such earthen vessels wherein salt fish was powdered & kept, beaten to powder, & tempered with old swines greafe: the ashes also of Burrers shels incorporat in oile, serue in right good stead for the swellings behinde the eares, and the tumours or wenns

* The Frenchmen term it *Diabls de mer*, i. the diuell of the sea.

called the kings euill. The stiffe cricke in the neck is mollified and made pliable againe so as it may turne which way a man would haue it with drinking of one dram weight of those creepers or insects which be called sea-lice; and yet some take for the same Castoreum in honied wine, adding thereto a little pepper, and drinke this composition in the broth of frogs boiled in oyle and salt. After which manner, many Physicians cureth the crampe that draweth the neck backward: the generall convulsion also that stretcheth the body so as if it were of one piece; and other particular spasmes and cramps of any part, so there be some pepper put thereto. The ashes of salt Cackerels heads burnt and reduced into a liniment with honey, discusse and resolueth the Squinancy cleare; like as the broth of frogs boiled in vinegar, and the layd broth is singular also for the inflammation of the tonsils. The Craifishes of the riuer dried and beaten to powder, then put into water (so as there be to euery one a hennie of water) make a good liquor to gargle withall for the squinancy. The same also drunke in wine or hot water, worke the like effect. The sauce made of Maquerels called Garum, put with a spoon vnder the vula, and there held a while, putteth it vp, and reduces it again to the right place. The fish * Silurus eaten at the table either fresh or powdered, helpeth the voice much. The barbels kept vntill they be dried, & then puluerized, prouoke vomit, if a cup of drinke be spiced with the powder. If a man or woman bee short winded, there is not a medicine again so good to helpe that difficulty of breath, as to drinke whiles they be fasting, Castoreum, with a little quantity of Ammoniack in honied vinegar. The same portion taken likewise with honied vinegar hot, allaieth the convulsion of the stomack proceeding from excessiue yexing or hicquers. Item, it is said, that Frogs boiled in some broth between two platters after the manner of fishes, are good for a cough: and beinge hanged by the heeles, after that their saluation and humidity is dropt from them into a pan or platter vnderneath, they are to be rid of their garbage, & when the same is flung away, they ought to be kept and preferred for the purpose aforesaid. There is a little Frog that vseth to climb trees, & from thence crieth and croaketh: if a man spit into the mouth of one of them, & then let her go again, it is thought hee shall bee deliuered by that meanes from the cough. To conclude, many giue counsell for the cough that bringeth vp bloud withall, to drinke in hot water the flesh of a raw perwinckle well punned.

CHAP. IX.

¶ Proper receipts for the accidents of the Liuer and the sides: for the infirmities also of the Stomacke and Belly. Besides other medicines, huddled together confusedly.

Many vse to suffocate and kill in wine a sea Scorpion, and to drinke thereof for the paine of the liuer. For the same purpose many are wont to take in honied wine and water of each a like quantity, the flesh of the long muskles or shell fishes, or if they haue a feuer, in honied water. In case of pleurisie or pain of the sides, the flesh of the sea horse roasted, eases the same: so doth the fish Tethea, which resembleneth an Oyster, taken as meat. The pickle of the fish Silurus injected by way of clyster allaieth the pain of the sciatica. To the like effect there are giuen for 15 daies together, Cockles, or Muskles, to the weight of 3 oboli infused in two sextars of wine. The broth of Silurus softneth the belly: like as the crampefish Torpedo, eaten as meat. The * sea-wort is like to that of the garden, hurtful to the stomack, but most easily it purges the belly. In regard of the acrimony that it hath, they vse to seeth it with some fat flesh. The broth of any fish whatsoever is laxatiue: the same prouokes vrine, especially if it be made of wine. The best fish broth comes from the Sea Scorpions, and those which they call Iulides: of stonefishes also that keep about rocks, and haue no rank or strong taste; and such must be sodden with dill, parsley, coriander, and leeks, putting therto oile and salt. The squares also or cantons of the Tunie, that haue bin old kept, are purgatiue, for particularly they euacuate crude and waterish humors, besides flegme and choler. The shell-fishes also named Myaces, haue a quality purgatiue: as touching whose nature I purpose to write fully in this very place. They gather together by heaps after the manner of Burrets; they liue in places giuen to breed reits and sea mosse; most delicat and pleasant meat they be in Autumne, & especially in those coasts where good store of fresh water is intermingled in the sea, which is the reason that those of Egypt bee most commendable: as winter grows on, they begin to gather a kind of bitterness, & a red colour besides.

* Olos marini: haply he meaneth brassica marina, a sea-cabbage, yet it is nothing like to our Colewort

The broth of these fishes hath the name to euacuate both the belly & bladder, to scour & mundifie the guts, to open any obstructions whatsoever, to purge the reines, to take down the rankness of bloud and fat. In which regards they be soverain for the dropsy, for the monthly termes of women, the jaundise, all gouts and diseases of the joints whatsoever, and ventosities. Singular they are holden to be for to cleanse the humors either cholerick or phlegmatick, which annoy and stuffe the lights, or which ingender obstructions about the liuer: likewise to cure infirmities of the spleen, and all rheums or descent of humors to any place. Only they be hurtfull to the throat, and make a man to lose his voice, this is al the harm they do. The vlcers that corrode and be full of filthy matter, and require mundification, they heal: so do they all cankerous sores. Being calcined after the order of Burrets, they cure the biting both of dog and man, if their ashes be incorporat in hony: and so they cleanse the leprosie, and rid away the pimples or spots in the skin called Lentils. Their ashes * taken in drinke, haue a vertue to discusse the dimnesse and mistiness of the eie-sight, to cure the accidents of the gums and teeth, and besides, to drie vp the small pocks and such like breaking out of wheals by occasion of flegm. Moreouer, they are as good as a counterpoison against the iuice of the deadly Dwale called Dorycnium, or of Carpasum, which is commonly named Opocarpasum. Besides, this would be noted, that they grow all to be of two kinds of them; the one * Mituli [i. Limpins] which haue a taste of salt, & carry a strong savor, the other * Mycæ, which differ from the other in roundness: lesse also, they be a good deal, and hairy; and as their shells be thinner, so their flesh is more firm and hard. The said Limpins also, as well as Burrets, yeeld ashes when they be calcined, which haue a caustick quality, whereby they serue properly to mundifie the skin from leprosie, lentils, and other pimples and illsuored spots. The same being washed after the maner of lead, be singular for to subtiliat the thick eie lids, to scatter and discusse the pearls in eies, to dissipate the cloudy & misty dimnesse, to cleanse filthy vlcers in any part of the body, and namely the pusses and blisters that arise in the head. As touching the flesh that they haue, it serueth in a cataplasme to be laid vnto the biting of mad dogs. The Palours also do soften and mollifie the belly: so doth Castoreum, being drunk to the weight of two drams in honied water. They that would haue this medicine more quick in operation, and to work thoroughly, put therto of the garden cucumber root dried one dram, & of salt-petre two drams. As for the fishes named Terheæ, they are singular against the wringing torments [and gripings] of the belly and all ventosities. These fishes be found ordinarily about the rocks of the sea, sucking the leaues of Reits and such like weeds, more like indeed to Mushrooms and Puffes, than to fishes. But the same haue a special propertie to cure the Tineime and the accidents of the kidneys.

Moreouer, there grows in the sea a kind of Wormwood, which some call Seriphium, and principally towards * Taposiris in Egypt, the which is more smal and slender than that of the land: it looseth the belly, killeth the worms in the guts, and expelleth them. The Cuttil fish also is laxatiue: and ordinarily giuen it is to be eaten, after it hath bin sodden with oile, salt, and meal. Salt Cackerels likewise prouoke vnto the stoole, in case they be reduced into a liniment with buls gall, and therewith the nauil anointed. Generally, the broth of fish stewed betweene two platters with Lettuce, dispatcheth those sharp and fretting humors which are the cause of the Tineime. Craifishes of the riuer stamped and drunk in water, stop a lask, and be diureticall. But yet in wine they moue appetite to the siege. Take away their feet and armes whereby they crawl, then pun and incorporate the rest of their body with Myrrh, they driue out the stone. But this proportion must be obserued, that to euery dram weight of them there be put three oboli of Myrrh.

To appeale the painefull passion called Iliaca, to allay and resolueth ventosities also and inflammations, there is not a better thing than to take in 4 cyaths of mead or honied wine hot, Castoreum, with carot and parslly seed, as much as may be comprehended with 3 fingers. The same is singular to allay the wrings and torments of the belly, with vineget & wine mixt together. The fishes named Erythini eaten as meat, stay the loosenesse of the belly. For to cure the dysenterie or bloody flux, seeth frogs with the sea onion commonly named Squilla, and thereof make certain trochisks to be giuen to the patient in that case. The same effect hath their gall or heart stamped and incorporate with honey, as Niceratus myne author doth testifie. Eat salt fish with Pepper, so as you abstain from all flesh besides, if you would be cured of the jaundise. Lay the fish named a Sole to the region of the spleene, it doth cure the oppilation and hardnesse thereof.

* Potius, rather illius, that is, brought into a liniment, & vsed outwardly. * Salem. Some read Stilla, i. sea Onion or Squilla. * or Muskles. * Haply Cockles.

* Taposiris.

of: so doth the cramp-fish Torpedo: and a Turbet in like manner, being applied aliue; but after-ward you must let it loose againe into the sea. A sea scorpion killed in wine healeth the infirmities of the bladder, is breaketh and expelleth the stone. The same effect hath the stone which is found in the tail of a sea scorpion, if it be drunk to the weight of one obolus: the liuer also of the water snake Enhydriis, and the ashes likewise of those kind of Mulletts called Blennij, if they be taken with Rue. Moreouer, there be found also in the head of the fish Banchus, certain little stones as it were, which if they be drunke in water, are soueraigne for them which be troubled with the grauel and the stone. And it is commonly said, That the sea fish called a Nettle taken in wine, is very good therefore: like as another named in Latine Pulmo Marinus, boiled in water. The eggs or spawn that the Cuttill fish doth cast be diureticall, and prouoke vrine, whereby also they cleanse the kidnies from the phlegmatick humors there gathered. Riuer crabs or crabs fishes stamped and taken in asses milke especially, doe cure ruptures and inward convulsions. And as for sea Vrchins, if they be stamped prickes and all, and so drunke in Wine, they expell stone and grauell: but to euery Vrchin there must be taken one hemine of Wine, and the Patient ought to drinke it continually vntill he find help: and otherwise their meat is good to be eaten ordinarily for this purpose. To feed also vpon Cockles and Scalops is wholsome for to scoure the bladder. Of these shael-fishes those of the male sex be called by some Donaces, by others Auli, whereas the female are named Onyches. The male do prouoke vrine, but the female are the sweeter in tast, and of one colour. The eggs or spawn also of the Cuttill fish moue vrine, as hath bin said before, and purge the reins. For that rupture wherein the guts fall downe into the cods, it is said, That the sea Hare punned and applied to the place in form of a cataplasm with hony, is singular to reduce them vp into their place. The liuer also of the water-snake or adder, called otherwise Hydrus or Enhydriis, beaten to powder and put in drink, helpeth those that be giuen to breed the stone and grauel. The pickle that comes of the fish Silurus salted, infused or injected by a clistere into the guts, so that the belly were before emptied from the grosse excrements, cureth the Sciatica. The ashes of Barbles and Mulletts heads calcined, heale and skin vp the galls and frets of the fundament. Now the manner of burning or calcining them is in an earthen pot: and reduced they ought to be into a liniment with hony, before the place be there-with anointed. The ashes also of Cackerels burnt do cure and close vp againe the chaps in the feet: which also are good for the swelling piles and bigs in those parts: Like as the ashes of the yong Tunies heads salted, called Pelamides: or the Squares named Cybia, with hony. If the ti-will be slipped down and ready to hang out of the body, apply thereto the cramp fish Torpedo, it presently reduceth it and staieith it vp. The ashes of craifishes brought into a liniment with oile and wax, healeth the chaps and fissures in those parts: so doth the fine powder of the Sea-crab dried and puluerised. The pickle also of the fishes Coracini discusseth and resolueth the biles called Pani. The same effect work the ashes of the garbage and scales of the shadow-like Sciæna. The sea Scorpion also boiled in wine, so that the said biles or impostumes be fomented therewith. But the hard and shael-like skins of sea-Vrchins being wel stamped, and with water brought into a liniment, keepe the said biles downe and repercuss them in the beginning. The ashes likewise of Murrets or Purple fishes serue both waies, whether it be needfull to discusse them in the beginning, or to ripen them, and after they be brought to maturation, for to break them and let them forth. Some physitiens for this intent compound a medicine or ointment in this maner: *Recipe of wax and flax 20 drams, of litharge of siluer forty drams, of Burrets ashes ten drams, of old oile one hemin, fiat unguentum.* The very fishes alone by themselves, salted, foddren, and so applied, serue in this case. Craifishes of the riuers punned into a cataplasm and applied vnto the secret parts, resolute & discusse the pulkes that there arise: so do the ashes of Cackerels heads: their flesh also boiled and laid to the place affected. In like manner, the ashes of Perches heads salted and reduced into a salue with hony. The ashes of yong Tunies heads, whiles they are Pelamides, or the rough skin of the fish called * Squatina, burnt. This is the skin which, as I said before, is proper to polish wood and make smooth any workes made thereof: whereby you may see, that euen the sea also doth afford instruments to fit the Ioiners and Carpenters hand. The small fishes named Smarides applied vnto the pashes of the sayd priuy parts in the forme of a liniment, do much good. As also the ashes of Burrets or Purples shells incorporate with hony: and the same would be more effectually, in case that the Fishes be burned whole, shell, fish and all. Salt fish foddren in hony, and applied, serueth particu-

* Some take it
for a Solc, so-
thers for a
Skeat.

larly to extinguiish the heat of carbuncles & botches in the said secret parts. If one of the cods hang downe hanging vnseemely lower than his fellow, some would haue it annointed with the froth that commeth from shell-snails or periwinkles. The flesh of the sea horse roasted, helpeth them that cannot hold their vrine, in case they vse ordinarily to eat therof: likewise the little fish called Ophidion, so like vnto a Congre, if it be taken with a Lillie root. The small fishes found in the bellies of the greater who haue deuoured and swallowed them down, taken forth & burned to ashes, are good in this infirmity to be drunk in water. The ashes of shael-snails, meat and all, burnt, are prescribed by some physitiens to be giuen in Signine wine against incontineney of vrine, but principally of Barbary snails. For the gout in the feet, & the diseases of other ioints, the oile wherein a frog was boiled, is soueraigne: so are the guts of the said frog, and the ashes of a road incorporat with old oile: some put thereto the ashes of all the three kinds of barley, of ech an equal weight. And they giue direction to rub also the goutie feet, with a Sea-hare: also to be shod with the skins of Beuers, especially those which are bred in Pontus: like as to weare shoes made of Seals skin: the fat of which fish, is likewise very good. Also the sea-mosse or reits called Bryon, like to lettuce, but that the leaues be more riuclled, and grow to no stalke; whereof I haue written heretofore: of a styptick and astringent nature it is; no maruell therefore, if being applied vnto the gout, it mitigat the fury and violence thereof. Moreouer, the common sea-weeds named Alga, of which also I haue treated already; but this caution there would be in the application thereof, That it be not dry. The sea-fish called Pulmo-Marinus, cureth the kibes in the heels: the ashes also of the sea-crab, tempered with oile: yea, and the riuer-crabs or Creifishes burnt and calcined to ashes, if the same be incorporat with oile: like as the fat of the fish Silurus. Moreouer, if other ioints be diseased, it were very good for the easement of their griefe, eft-soons to lay thereto frogs, fresh and new taken: may the best way, by the direction of Physitiens, is to split them through, and so to apply them warme. The broth of Limpins, Muscles, cockles, and Wilkes, is very nutritiue, and maketh them fat that vse it. Those that be subject to the falling sicknesse, vse ordinarily (as hath bin said before) to drinke the rennet of the Seale or Seacalfe, either with mares milke or asses milk, or els with the juice of the pomgranat: and some are wont to take it in oxymell or honied vinegar: and yet there be others that swallow the same downe by it selfe in forme of pills. And for the same purpose, Castoreum is vsually giue vnto such patients fasting, to be drunke in 3 cyaths of honied vinegar or oxymell afore said: but those that eftsoons be surprized with the fits, and oftentimes fall thereof, find wonderfull much good by this clystre following: Take of Castoreum two drams, of hony and oile one sextar, and of water as much. But say that one be presently in a fit, the ready meanes to raise him and set him vpright vpon his feet againe, is to present vnto his nostrills Castoreum with vinegar, for to smel vnto. The liuer also of the fish named the Sea-cat or Weazill, is giuen in like case: euen as the bloud either of Sea-mice or Tortoises.

CHAP. X.

¶ Remedies for feuers of all sorts: also for diuers other infirmities.

The liuer of a Dolphin eaten before the accesse, cureth all those agues which be not continuall, but returne by fits and keepe their course. Oile rosat wherein the fishes called Sea-horses were suffocated and killed, is singular good to annoint those that be sicke of such agues as come with a cold fit: and the very fish it selfe is most effectually to rid away the same, in case it be hanged about the necke, or to the arme of the patient. Semblably, the little stones which are found in a Haddock's head at the full of the moone, if they be taken forth and hung about the patient, lapped handfomly in a little linnen bag, serue to driue away such feuers. Moreouer, it is said, that the longest tooth in the head of a riuer Fish called Pagrus, tied to one of the hairs of the patients head, so as he do not see the party who fastened or hung it therto, in 5 daies space will doe the deed: as also the oile wherein a frog hath beene boyled in some carrefour or crosse street turning three waies, cureth those who are sicke of a quartane ague, if they be all o-uer annointed therewith; prouided alwaies, that the flesh be first throwne away. And yet some ordaine, that they should be strangled or stifled in oile, and then the bodies hung priuily about some part of the patient without his knowledge; and that he be afterwards well rubbed and annointed with the foresaid oile. If one carry about him the heart of a frog either hanging by his necke

necke or tied to his arme, surely it will diminish and shorten the cold fit of an ague: like as the oile will do no lesse, wherein the entrails of the said frog were boiled, in case he be annointed therewith. But above all, either frog or toad (the nailes wherof haue been clipped) hanged about one that is sicke of a quartan ague, riddeth away the disease for ever: also, whosoever haue about him hanging to any part of his body the heart of a toad, infolded within a piece of cloth of a white russet colour, he shall be deliuered from the quartan ague. Stampe riuier crabs or creifishes, conorporat them with oile and water, and herewith annoint the patient all ouer before the fit of any ague, you shall find it to do very much good, but some put pepper thereto: other for the quartan particularly, boile the same in wine vntill a fourth part be foddren away, & then giue counsell vnto the sicke parties to drinke of that broth, presently after they be come out of the baine. You shall haue some aduise, for to swallow downe whole, the left eie of a creifish in this case. Moreover, the Magitians seem to assure vs, that whosoever be sicke of a tertian ague, shall be rid of it, in case the eies of the said creifishes be tied or hanged about them one morning before the Sun be vp; so as withall, they that haue the doing hereof, let them go again blinde as they are, into the water: and they would beare vs in hand, That if the said eies plucked out of the head of a creifish, be wrapped together with the flesh of a Nightingale, within a piece of a stags skin, and sowne either about the neck, or otherwise tied fast to some part of the bodie, they will cause him or her that weareth them, to be watchfull & not inclined one whit to sleep. They vse likewise the rennet of a Whale or els of a Seale, giuing it vnto those that be growing into a lethargie, for to smell vnto: and some of them annoint those that be already in a lethargie, with the blood of tortoises. The fish likewise called Spondylus, is said to rid away the tertian ague, in case the patient weare one of them without anything else, about the necke: like as the riuier shel-snails eaten fresh and new gathered, cure the quartan: howbeit, some there bee, who for that purpose keep them condite in salt, and giue them after they be punned for to drink. The wilks also or wrinkles called Strombi, suffered to lie and putrifie in vineger, dowith their very smell awaken and raise those that lie in a lethargie. The same are good likewise for such as be ready to faint and fall into cold sweats, through feble nesse of the heart and stomacke. The fishes named Terrea, eaten with rue and hony, are soueraigne for to restore them whose flesh is fallen away in a consumption. The fat of a dolphin melted and drunk in wine, cureth such as be in a dropsie. In case the head be heauie and ready euermore to fall asleepe, there is not a better thing than to rub the nostrils with some conuenient ointment, or to hold thereto some perfume, or els to stop the same any way it makes no matter how. Also, the meat of the foresaid wilks or wrinkles, stamp & giuen in 3 hemines of bonied wine, with as much water, or in mead or honied water if the patient haue a feuer wichal, is singular good against the said drowiness: likewise the iuice or decoction of creifishes with honey. Moreover, water-frogges boiled in old wine with the red wheat Far, and eaten as meat, so as the patient drinke also of the broth out of the same vessell where they were foddren, are thought to be soueraigne for such sleepe diseases: or else take a tortoise, cut away his head, feet, and taile, plucke out his guts and garbage, the rest of the flesh condite, so as it may be taken without any lothing or rising of the stomack, for this is held to be singular in this malady. Moreover, fresh-water creifishes eaten with their broth, haue the name to restore such as be in a phthisicke or consumption of the lungs. The ashes either of a sea-crab or riuier creifish, be excellent either for burne or scald, and this manner of cure also serueth for to restore haire again, but then they hold opinion, that together with the ashes of the riuier creifishes, there be wax vsed & beare grease. Also the ashes of frogs gal is thought good for a feuer. As for Shingles and *S. Anthopis* fire, the bellies of liue frogs applied to the place, doe extinguish and quench the extremitie of their heat: but in any case order is giuen, that they be tied by the hinder leggs with their mouths bending forward; to the end, that their often breathing also vpon the place, may coole and do good. Furthermore, many there be who vse for that purpose, the ashes of the heads of the fishes called Siluri: as also of saltfish with vinegre, and apply the same to such wildfires and inflammations. The liuer of a Puffen or Forkefish foddren in oile, being outwardly applied, killeth not onely the itch and scab of men, but also the scurfe and mange of four-footed beasts, most effectually. The callositie or thick skin wherewith Purple fishes couer their heads and hollow concauitie, if it bee punned and applied vnto wounded sinews, doth consolidat and sowerd them againe though they were cut asunder. The rennet of a Seale or Sea-calf taken in wine to the weight of one obolus, helpeth those that lie

in a lethargie: so doth fish-glew Ichthyocola. Such as are giuen to the shaking and trembling of their lims, find much benefit by Castoreum, if they bee rubbed and annointed with it and oile together. I read, that Barbles are hurtfull meate for the sinews: and many are of opinion, that as much feeding vpon fish * causeth bleeding, so the same may be stanchd with the poultre or pourecuttle, if it be stamped and applied to the place: of which fish, thus much moreouer is reported, That of himselfe he yeeldeth a certain salt pickle, and therefore there should be no salt put into the liquor while he is seething: *Item*, that it ought to be sliced and cut with an edged reed, for with an yron knife it will take infection, and the nature of it is such as to * keep and re-
taine it still. For the stanching of blood, they vse also the ashes of frogs, or els their blood dried, to be applied accordingly. But some would haue the ashes to be made of that kind of frog, which the Greeks name Calamites, because it liueth among reeds, bushes, and shrubs, & of all others is the least and greenest: and yet many do ordain, if the flux of blood be from the nostrils, to take the ashes of young frogs breeding in the water, while they be tadpoles, and haue little wriggling tailes, (and those must be calcined for that purpose in a new earthen vessell) & to put vp the said ashes into the nose. On the contrary side, the horseleeches which we call in Latine Sanguisugas, [i. Bloodsuckers] are vsed for to draw blood. And verily it is iudged that there is the same reason of them, as of ventoses and cupping-glasses vsed in physicke, for to ease and discharge the body of blood, and to open the pores of the skin. But here is all the harme and discomfort of these horseleeches, That if they be once set too far to draw blood, the body will looke for the same physick again euery yere after, about the same time, & be ill at ease for want thereof. Many physicians haue thought it good to vse them for the gout of the feet also. Well; set them to the hamorrhoids, and where you will, they fall off lightly when they are full and satisfied, euen with the very weight of the blood which pulleth them downe; or els by strewing some salt about the place where they sticke too: and otherwhiles it falleth out, that they leaue their heads behind them fast fixed in the place where they settled, and by that means make the wound incurable and mortall, which hath cost many a man his life: as it happened to *Messidanius* a noble man of Rome, and who in his time had bin a Consull, whose fortune it was to die thereupon, hauing set them to his knee: whereby we may see, that oftentimes they bring a mischief for a remedy: and the red ones are they that in this respect ought to be feared. To preuent therefore this dangerous inconuenience, they vse with a paire of fizzers to clip them at the very mouth as they be sucking; and then shall you see the blood spring out, as it were at the cocke of a condir, and so by little and little as they die, they will gather in their heads, and the same will fall off, and not tarrie behind to do hurt. These horseleeches naturally are enemies to Punaises, in so much as their perfume killeth them. Furthermore, the ashes of Beuers skins burnt and calcined together with tar, stancheth blood gushing out of the nose, if the same be tempered & mingled wel with the iuice of porret. The shels of cuttles applied to the body with water, draw forth arrow-heads, pricks, or spils, that sticke deepe within the flesh: so doth any saltfish if the fleshie side be laid thereto, yea, and fresh-water creifishes haue the same effect: likewise the flesh of the fresh water Silurus (for this fish breedeth in other riuers besides Nilus) applied to the place, either fresh or salted it makes no matter, worke with the same successe. The ashes of the same fish, and the fat, be of the same operation; and very attractiue. As for the ashes of their ridge-bone, and prickie finnes, they are taken to bee as good as: Spodium, and are vsed in stead thereof. As touching those vlcers which be corrosiue, as also the excrescence of prond flesh growing in such sores, there is not a better thing to repress and keepe them downe, than the ashes of Cackerels or the fish Silurus aforesaid. The heads of salted Perches be singular good for cancerous vlcers: and the more effectually they will work, in case there be salt mingled with their ashes, and together with knopped Majoram or Sauorie and oile, be incorporat into a liment. The ashes of the Sea-crab burnt and calcined with lead, repress cancerous sores: and for this purpose sufficient it were to take the ashes only of the riuier creifish, medled with hony and lint: but some chuse rather to mingle alume and hony with the said ashes. As for the eating sores called in Greeke Phagedaene, they may be healed well with the fish Silurus, kept vntill it be dried, and so together with red orpiment, reduced into a powder. Likewise morimals, and other consuming cankers, and those sores which be filthy and growing to putrefaction, are commonly healed with the old squares of the Tunie fish. Now if there chance to be wormes and vermine breed in the said vlcers, the only means to cleanse them is with the gall of frogs.

*Hyssop, other-
wile *Oxypho*,
is the tried
greace of vn-
washed wooll.

But the hollow fores commonly knowne by the name of Fistuloes, are enlarged, kept open, yea and brought to drines, with tents made of saltfish conueied into them with in fine linnen rags: and within a day or two at most, they will rid away all the callositie, together with the dead and putrified flesh within the fores, yea and repress the eating and corrosiue humor in them, if they be wrought into the forme of a salve or emplaister, and so applied. To mundifie vlcers, there is not a fitter thing than stockfish made into a tent with fine lint of rags, and so put into the fore. Of the same effect are the ashes of the sea-vrchins skin. The pieces of the fish *Coracinus* salted, discusse and resolue the hot apostems named carbuncles, if they be applied: so doe the ashes of the Barble salted and calcined. Some vse the ashes of the head of the said fish onely with hony, or els the very flesh of *Coracinus*. The ashes of murets tempered with oile, delay & take down any swelling. The gall likewise of the Sea-scorpion, taketh off the rouse of fores, and bringeth skars that ouergrow the flesh vnto the leuell of the other skin. The liuer of the fish *Glanus*, causeth werts to fall off, if they be rubbed withall. Also, the ashes of Cackerell heads do the like, if they be tempered with garlick: but for the thymewerts particularly, they vse them raw: the gall likewise of the reddish sea scorpion, and the small sea fish *Smarides*, punned and brought into a liniment do the like. The grosse pickle sauce called *Alex*, if it be made through hot, cures the raggednesse of nails: the ashes also which come of Cackerell heads, do extenuate and make them fine. The fish *Glauciscus* eaten in the own broth, causeth women to haue store of milke: so doe the small fishes called *Smarides*, taken with prisan or barley gruell, or els boiled with fennell: and in case they haue sore breasts the ashes of Burrets or Purple shells incorporat with honey, doe heale effectually. A liniment made of Sea-crabs or fresh-water Creiffishes, takes away the offensive haire that grow about womens nipples or breast heads: the fleshie substance also of the Burrets applied to them, work the same effect. A liniment made of the fish called a Skate, will not suffer womens paps to grow big. A candle-weike or match made of lint, and greased al ouer with the oile or fat of a dolphin, and so set a burning, yeeldeth a smoake which will raise women againe, lying as it were in a trance and dead vpon a fit of the mother: the same do *Macquerels* putrified in vinegre. The ashes either of *Pearch* or Cackerell heads tempered and incorporat with salt, fauerie and oile, serue for all the accidents of the matrice, and more particularly in a perfume, bring down the after-birth. Semblably, the fat of a Seale or Sea-calf, conueighed by meanes of fire in a perfume vp into the nostrils of a woman lying halfe dead vpon the rising and suffocation of the matrice, bringeth her to her selfe againe: so doth it also, if with the rennet of the same Seale, it be put vp in wooll after the manner of a pessarie, into the priuie parts. The ashes of the Sea-fish called *Pulmo*, applied conueniently to the region of the matrice, and kept fast thereto, purgeth women passing well of their monethly fleurs: of the same operation are Sea-vrchins stamped aliue, and drunk in some sweet wine: but the riuier Creiffishes likewise punned and taken in wine, do contrariwise stay the immoderat flux thereof. Likewise it is said, that a suffumigation of the fish *Silurus*, especially that which breedeth in Africa, causeth women to haue more speedie and easie deliuerance in childbirth: as also, that Crabfishes drinke in water, doe stop the excessiue ouerflowing of their monethly terms; whereas with *hyssop they set them a going and purge them away. Say that the infant sticke in the birth, and by reason of painfull labour be in danger of suffocation, let the mother drinke the same in like manner, there will present help ensue. Women with child vse also either to eat them fresh, or drink them dried, that they may go out their full time, and not slip an abortiue fruit. *Hippocrates* vseth the same, and prescribeth vnto women for the bringing down of their sicknesse, and likewise to thrust out the infant dead in their wombs, to drinke them in honied wine with fine dock roots, stamped together with rue and foot: and in very truth, sodden with sorrel or docks and parsley, they force womens months to come downe speedily, if the broth be drunke; and withall, bring plentie of milke into nurces breasts. If women haue an ague, and the same accompanied with head-ach & much twinkling or inordinat palpitation of the eies, it is thought they shall find much good by drinking them in some hard and austere wine. Castoreum taken inwardly in honied wine, is singular to helpe forward womens monethly purgation: the same being held to their nostrils with vinegre and pitch to smell vnto; or put vp beneath in manner of a suppositorie, after it is reduced into the forme of trochisques, helpeth them when by rising of the mother they are in danger of strangulation. For to bring away the after-bitth, it auaieth much also for women to drinke the said Castoreum with Panaces in foure cyaths of wine: as also it is certaine, that who-

foeuer

A foer take the weight of three Oboli thereof, shall auoid the danger that may come to them by extremitie of cold. Moreouer, if a woman great with child chance to goe ouer a place where lieth Castoreum, or to step ouer the Bearer it selfe (which is the beast that beareth it) she shall be deliuered before her time; yea she shall be in great danger vpon her deliuerance, if the same be but born ouer her where she lieth. A wonderfull thing it is, that I read of the crampfish *Torpedo*, namely, That if it be taken while the moone is in the signe *Libra*, and be kept for three daies together abroad in the open aire; so often afterwards as it is brought into the rounge where a woman is in tranell of childbirth, she shall haue easie and speedie deliuerance. In this busines also it is thought expedient, that the prick which a Puffin or Forkfish hath in the taile, be applied and tied fast to the nauell of a woman; provided alwaies, that if it be taken forth of the fish aliue, and then the same fish be let goe againe and throwne into the sea. I read in some writers of that which they call *Ostracium*, to be the same that others name *Onyx*; but call it what you will, a suffumigation made thereof, is of wonderfull effect to ease the pain and griefe of the matrice. I find, that it hath the smell of Castoreum, and if it be burnt together therewith in a perfume, the more good will ensue; as also that the ashes thereof calcined, heale all inueterat vlcers, and such as are mortuall, and scorne any ordinary cure. And verily, the same authors doe report, that for carbuncles, cancers, and such vntoward fores, as arise sometimes about the priuities of women, the most present & assured remedy that is to heale them, is the female Sea-crab, stamped after the full of the moone with the finest powder of salt, called the flour thereof, and water together, and so reduced into the forme of a salve or liniment. The bloud, gall, and liuer of the fish *Tunic*, ether taken fresh or old kept, be all of them depilatories, for they fetch away hair and hinder it from growing: the liuer thereof punned, and together with the rosin or oile of cedar incorporat and kept in a leaden box, hath the same effect. This was the deuise that the famous midwife *Salpe* had for boies, to make them beardless and appeare alwaies young, and to set them out the better for sale. Of the same operation is the fish called *Pulmo Marinus*, the Sea-hare likewise, I meane the bloud and gall of them both: and as for the said Sea-hare, being but stifled & killed in oile, it is as effectual. The ashes of the Sea-crab and *Scolopendre* both, the Sea-nettle [a fish so called] incorporat with vinegre squillitick, the brains of the crampfish *Torpedo* tempered with alum, be all depilatories, if the place be anointed therewith the morrow after the moon is at the full. The bloody moisture that comes from the little frog, which I described heretofore in the cure belonging to eies, is the strongest depilatorie that is, and worketh most effectually, in case the part be dressed therewith while it is fresh and new: and the frog it selfe dried and stamped, and anon after boiled in three hemins of vinegre, till one of them be consumed; or in oile after the same manner in some brazen pan, is a sure medicine to take away haire, and hinder the coming vp of it againe. In the same measure of liquor, some put fiseene frogs, and make thereof an excellent depilatorie, like as I haue said already among the remedies appropriat to the eies. Moreouer, horseleeches torrified in some earthen pan, and brought into a liniment with oile, worke the same effect in the hairs: the very perfume or smoke which they cast as they be burnt or torrified, killeth Punaises, if they either flie or be brought into the aire thereof. Furthermore, diuers haue bene knowne to vse Castoreum and hony in a liniment for many daies together, as a notable depilatorie. But in vsing any depilatorie, whatsoever, this one point is generally to be obserued, That the haire be first pulled vp by the roots, in any place, where they would not haue them to grow.

To come now vnto the gumbs of children, and their breeding of teeth: the ashes of dolphins teeth mixed with hony, is a soueraign medicine: yea, or if you do but touch their gumbs with a dolphins tooth all whole as it is, the effect thereof is admirable: the same hanged about their necks, or tied to any part of the body, riddeth them of sodain frights, wherunto infants are much given. Of the same effect is the tooth also of a dogfish. As for the vlcers or sores incident to their eares, or any other part of their body, the broth of riuier creiffishes thickned with barley meale, heales them. For other diseases also of breaking out, a liniment made of them and oyle incorporat together in a mortar, is singular good, if they be anointed all ouer therewith. Touching the hot distemperatures and inflammations of the head, wherunto little babes be much subject, a sponge actually cold applied to the place, and oftentimes wet, is a good meane to cure the same: but a frog turned inside outward hath no fellow, if it be bound fast vnto the head; for they say, that it may be found all drie vpon the head with drawing the head so forcibly to it.

Q. 93

A Barble

A Barble drowned in wine, or the fish called a Rochet, or also two Eccles, likewise the fish named the Sea-grape putrified in wine, do infuse this vertue into the foresaid wine, That whosoever drinke thereof, shall haue no mind afterwards to any wine besides, but fall into a dislike and loathing thereof.

The stay-ship Echeneis, the skin of a Sea-horse forehead, especially toward the left side, wrapped within a little linnen cloth, and so hanged about one; or the gall of a liue Crampe-fish, applied vnto the genitall members in manner of a liniment, be all means to coole the wanton lust of the flesh: contrariwise, the flesh of riuier Creisfishes powdered and kept in salt, giuen in wine to drinke, do stir and prouoke the appetite vnto veneric. Moreover, to feed vpon the fishes called Erythrines ordinarily at the table: to hang about the necke the liuer of the frog called Diope-tes or Calamita, within a little piece of a cranes skin, or the jaw tooth of a Crocodile fastened to any arme; either els the Sea-horse, or the finewes of a Toad, bound to the right arme, incite greatly to wantonnesse and lecherie. Put a toad within a piece of a sheeps skin newly slaid, and let one weare it tied fast about him, he shall forget all loue and amitie for euer.

The broth of frogs boiled in water, do extenuat the scurvie thicke rouse in the farcins or mange of horses, and make way that they may be bathed and anointed: and verily it is credibly affirmed, that if they be cured after this manner, the scab will neuer returne againe. The expert midwife *Salpe* affirmeth for certain, That doggs will not barke, if there be giuen vnto them in a morcell of bread or gobbet of flesh, a liue frog.

In this discourse of Water, and the things concerning it, somewhat ought to be said as touching Calamochnus, which otherwise in Latine is named *Adarca*: it groweth about small canes or reeds, and is engendred of the froth of sea water and fresh water together, where they both meet and are intermingled: a causticke qualitie it hath, in regard whereof, it entreteth into the compositions called *Acopa*, which serue for lassitude, and those that are benumbed with cold. It is employed also in taking away the pimples, or spots in womens faces like to lentils.

As for Reeds and Canes, this is their very proper place also, wherein they should be treated of. And to begin with that reed or cane called *Phragmitis*, which is so good for mounds & hedges; the root thereof greene gathered and punned, is singular for dislocations, and the paine of the backebone, if the place affected be annointed with it, incorporat in vinegre. But the rind of the Cyprian cane, which also is named *Donax*, burnt into ashes, is singular for to recouer haire againe where it was shed by occasion of sicknesse, and to heale old vlcers. The leaues also serue very well to draw forth any spills, pricks, or arrow heads that sticke within the flesh, yea and to extinguish *S. Anthonies* fire. As for the floure or downe of their catkins, if it chance to enter into the eares, it caueth deafenesse. The blacke liquor resembling inke, which is found in the cuttle-fish, is of that force, that if it be put to the oile of a lamp burning (*Anaxilans* saith) it will drown and put out the former cleare light, and make all those in the room to looke like blackamores or *Æthiopians*. The hedge frog, otherwise called a toad, boiled in water and giuen to swine among other drasse to drinke, cureth all their diseases: and of the same effect are the ashes of any other frogs besides. Rub a piece of wood with the fish called *Pulmo Marinus*, it will seem as though it were on a light fire; in so much as a staffe so rubbed or besmeared with it, may serue in stead of a torch to giue light before one.

CHAP. XI.

¶ That there be of fishes and other creatures living in the Sea, one hundred seuentie and six severall and distinct kinds.

HAuing thus treated before sufficiently of the natures and properties of Fishes, and such creatures as the water doth yeeld; it remaineth now for a final conclusion, to present vnder one view, all those fishes name by name, which are engendred and nourished not only in those mediterranean and inland arms of the sea, which for many a mile take vp a great part of the continent and firme land, but also in that vast and wide ocean without the main, bounded as it were limited onely by the compasse and circumference of the heauen: and those, namely as many as be knowne, may be reduced all into 176 kinds: a thing which cannot be done either in the beasts of the land or foules of the aire. For how is it possible to decipher & particularize the wild beasts and foules of India & *Æthyopia*, of the desarts, and of *Scythia*, which we are not

come

A come to the knowledge of, seeing we haue found so many different sorts in men, of whom wee haue some notice and intelligence: to say nothing of *Ta probane*, and other Islands lying within the Ocean, whereof so many fabulous reports are deliuered: certes, there is no man but hee must needs confesse and agree to this, that it was not possible in this historie of Nature to comprise all sorts of creatures which the earth & aire do yeeld. Howbeit, those that are bred in the Ocean, as huge and vast as it is, may be comprehended vnder a certaine number: a wonderfull matter that we should be better acquainted with those, considering how Nature hath plunged and hidden them in the deepe gulfes of the maine sea!

To begin then with the greatest monsters and beasts that this vnruely Element of the water doth breed: we find therein the sea-Trees, Whirlepooles, greater Whales, Priests, Tritons [*i. sea Trumpetters*] *Nereides* [*i. Mermaids*] Elephants, sea Men and Women, Wheelles, sea Tuns or Pipes, Rams, and smaller Whales accompanying the bigger. Besides, other Rams that resemble the ordinary shape of fishes, Dolphins, and the sea Calues or Seales, whereof the Poet *Homer* writeth so much. Furthermore, the sea Tortoises, which serue for roiot, wantonnesse, and excess: the Beuers, which are so much in request among Physicians. As for the Otters, albeit a kind of Beuers they are, yet because I neuer heard that they came into the salt water, I make no great reckoning of them; for my purpose is to rehearse those only which inhabit or haunt the sea: moreover, the sea Dogs: the Curriers, Posts, or Lacquies of the sea: the horned fishes: the Swordfish or Emperour of the sea, and the Saw fish.ouer and besides, those which liue indifferently in the sea, the land, & the riuier, to wit, the water Horses and the Crocodiles: others again that ordinarily keepe in the sea, and yet come vp into the riuers, but neuer land, to wit, the Tun-

nies, as well the growne Thunnies, as the yonger sort, Thunnides or Pelamides. The Siluri, the blacke Coracini, and Perches. As touching those that neuer came forth of the sea, the Sturgeon, the Guilthead, the cod, the Acarne, Aphyia, Alopecias, the Yeels, and Araneus. The billowing fish Box, Batis, Banachus, Barrachus, and Belone, with all the kind of those which wee call Needle fishes, and also Balanus. The sea Rauē Corvus, and Cytharus: all the sorts of the Chrombi: the Carpe, Chalcis, and Cobio: Callarius of the Cods kind, but that it is lesse: Colias, whether it be Parianus [of Parium the Colony] or Sexitanus, so called of a city in Granado or Bætica, a fish resembling Lizards: of which and of the young Tunie Pelamis (both bred in Mœotis) being chopped and cut into pieces & so salted, are made those Quadrants or Square-lands, called Cybia. For this you must vnderstand, that the Tunie is called Pelamis, when after 40 daies he returneth out of Pontus or the Euxine sea into Mœotis: whereas the said smal Pelamis taketh the name of Cordyla, when it goes first forth of the said great lough or lake Mœotis, and enters into the sea beforenamed. Moreover, in the said meer Mœotis be these fishes besides, to wit, Cantharus, Callionymus, otherwise named Vranoscopus, and Cinædi, which be the only fishes that be all ouer yellow; Cnide, which we in Latin call *Vrtica*, the Nettle: al the sorts of Crabs, the gaping smal Cockles and Muskles, whether they be the rough *Chamæ-trachæ*, the smooth *Cnamæ-leoi*, or the *Chamæ-peloides*: which be of diuers kinds distinct one from another, both in forme of roundnesse, and variety of colours: as also the Cockles named *Chamæ-glycimerides*, which be bigger than the former Peloides, together with those that the Greekes call *Colycia* or *Corophya*. Moreover, sundry sorts of other shell fish, and among them those that engender and beare pearles, and thereof be called Mother-pearls. The wilkes also and winckles which resemble shell-snailles: of which kind are the *Pentada&yles*, *Meliscembales*, and the prickly *Echinophoræ*, whose shells serue to sound or wind withal.ouer & besides these shell fishes, are those winkles of a round forme, the shells whereof are much used to lade vp oyle. Furthermore, the sea Cucumber and Cynopus; the sea Craifish *Cammarus*, *Cynofdexia*, and the sea Dragon. As for that which is named *Dracunculus*, some are of opinion, That it differeth from the foresaid *Draco*, and like it is to the Chough-fish *Gracculus*, sharpe prickles it hath in the gills, and those pointing toward the taile: like as the sea Scorpion, which thereby woundeth and hurteth those that would seem to take it vp in their hands. There is besides the *Erythinus*, the stay-ship *Echeneis*, & the sea Vrchin. The black Elephants also, which be the black kind of the Lizards, hauing foure feet, and those clouen & two-forked, besides two arms with two joints apiece, and each of them armed with a little forked cley, and closing in manner of teeth. Then haue you the fish called *Faber* or *Zeus*, that is, the Goldfish or *Doree*. All the sorts of *Glauciscus*, the *Glanis*, the *Gonger*, or *Conger*, the *Hearing* or *Pilchard* *Gerries*, *Galeos*, and *Garus*. Also

¹ So called of the forme of warlike engines of batterie, called in Latin *Arctites*.

² And yet haue some proportion of the land beast so called.

³ *Luxurie*, happily because the form of a Lute was deified first by the shell thereof or sumptuous buildings etc.

⁴ ther framed archlike according to the or els adorned & sealed with their shells by Maquetage.

⁵ By reason of their stones, which yeeld Castoreum.

⁶ Some take Thunni for the Milters, and Thunnides for Spawners.

⁷ *Acipenser*, a kind of Crab, which some call *Spar-nard* the Heremite.

⁸ *Diable de mer*, a kind of urbot.

⁹ A Gougone, a lace, *trium emulus*, as *Delectampus* readeth.

¹⁰ *Dactelampus* readeth & conuatiuise, and correcteth the place out of *Arifalio*.

¹¹ Which some take for the Pike, etc.

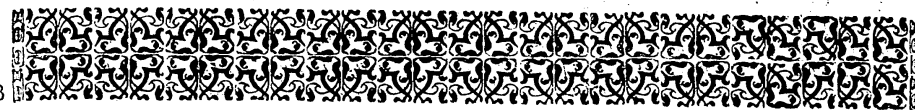
Also the coast Crabfish called Hippeus, or Sea-horseman Hippuros; the sea Swallow fish, Halpleumon, or Pulmo Marinus; the sea-lights, heart-fish, the liuer of the sea, and Helacathenes. All the sorts of the sea-Lizards: the flying Calamariæ: the Locusts and Lanternes of the sea, Ly-paris, Lamyrus, the sea Hare and sea Lions, which haue cleies or armes in maner of Crabfishes, but in other respects resembling Locusts. The Barble, the Merling or Whiting (among stone-fishes well esteemed) and the Mullet: the blacke taile Perch [which some take for a Ruffe, others for a sea Breame:] the Cackerell, the Meryx, the Lamprey, the little Muske, the Limpin, the Myscus, and the Burret. The seven-eye Oculata, the Ele-pout Ophidion, the Oistre, the * eares of the sea called Otia, & Orcynus. This fish of the Tunie kind named Pelamides is the biggest, and neuer returneth again into Mœotis, like vnto a Triton; & the meat therof is the better for age. The Lompe, Padde, or sea Owle, and the grunting Molebout: moreover, the fish Phager, the Mole or Lepo counted among stonefishes, and the Pelamis, the greatest of which kind is called Apolectus, and harder it is than the Triton, also the sea-god Phorcus, and Phritharus: the Plaice or Hallibut, & the Puffin: all the kinds of Pulpes or Pourcuttills. The greatest Scallops also, and those which during Summer be blackest, whereof the best sort be those, which are taken about Mytlenæ, Tyndaris, Salonæ, Altinum, Antium, and the Island Pharos neere to Alexandria in Ægypt. Also the little Scallops, the Purples, & the sea Perches, named Percides: the Nacres and their hunters, called Pinnothæ. Ouer and besides, the fish called Skate, which some will haue to be Rhina in Greek, & named by vs in Latine, Squatus, and the birt or Turbot: the Guildhead Scarus, which at this day is thought to be a principal fish: the Sole, the Sargus, the Shrimp, and the Sarda, for so they call the long Pelamis when he comes out of the Ocean. The Maquerel or Scomber, the Stockfish, the Sparus, Scorpæna, Scorpis, Sciæus, Sciæna, the Scolopendra, the serpent fish Smyrus, the Scepinæ; the shel-fish pointed like a Turbant, Strombus: & Solen, otherwise called Aulus, Donax, Onyx, or Dactylus, all shel-fishes made like kniues: the asle-houfe oyster Spondilus, and the shel-fish Smarides, the Star, and the Sponge. Then follow the noble stonefish Turdus, and the Thomas Thurianus, sold in pieces or rands cut forth, which fish some call Xiphia, or the Sword-fish. The Thessa, Torpedo or Crampfish, and Tethea. Triton also, which is reckoned among the greater kind of the Pelamides, whereof are made those square taile-pieces of the Tunie, called Vraa Cybia. Last of all, the Vrenæ, the sea Grape or the Empe-rour with a sword, called Xiphias. And here I thinke it not amisse to annex the names of diuerse fishes set downe by the Poet Ouid, which are not to be found in any other Authour: But haply those breed in the great sea of Pontus, in which realme he began that booke *De Ponto*, in his latter daies. In the first place he nameth * Bopgyrus, which liueth among the rockes: the red Or-phus, and the blacke Rhacinus, the painted and streaked Mormyræ, and the golden coloured Chryfos. Moreover, the little Teragus, and Labrus with the faire & pleasant taile. Likewise the Epodes, which are of the broad or flat kind, named Lati. All these be notable fishes: but ouer and besides, he reports the speciall properties and nature of some: as namely that the Chaune doth conceiue of it selfe without a male: that the Glaucus neuer is to be seene in Summer: that Pompilus alwaies accompanieth the ships vnder saile: and Chronius buildeth a nest in the very water. He saith moreover, That Helops is a stranger to vs in this part of the world, and not known in our seas: whereby it is euident that they be deceiued who take it for the Sturgeon Acipenser, and yet many reckon this Ellops to haue the daintiest tast, and to be the most delicate meat of all fishes. There are ouer and besides other fishes, named as yet by no writer, to wit, that which in Latine wee call Sudis, the Greekes Sphyræna, which (as it should seeme by the name) hath a snout or muffle resembling a sharpe stake or spit, and may for quantitie be counted among the biggest: a rare fish, but of no base and bastard kind. There be also of the Nacres those which are called Pernæ, taken and gathered in exceeding great plenty about the Islands of Pontus: their manner is to stand or sticke fast planted vpon the sea sand, and made they are in fashion of the long shanke of a swine; they gape alwaies toward the coast which is cleare; and neuer doe they hunt for their food, but they yawne at least a foot wide. Teeth there be growing round about the edges of a shell, and those stand thicke together, and when they shut or close their shels, the foresaid teeth run one betwene another in manner of acombe. In stead of a callositie within, they haue a great lumpe of flesh. As for the fish Hyæna, I my selfe haue seen one of them taken in the Island Enaria, which vsed to put forth and draw in his head at his pleasure.

* Which are a kind of oysters

* Some read Bos-piger.

Thus

A Thus much of Fishes worth the naming. For besides these, I am not ignorant that there be other base excrements that the sea voideth and purgeth, which I hold to be very vnfit and not worthy to be ranged among Fishes and liuing creatures, but rather to be reckoned as Kilpes, Reike, and other sea weeds.



THE XXXIII. BOOKE OF THE HISTORIE OF NATURE, WRITTEN BY C. PLINIUS SECVNDVS.

Of Mettals and Minerals, and their natures.

The Proem.

Now is it time to enter into the discourse of the Mettals and Minerals, the very riches and precious treasure of the World, which men so curiously and carefully seeke after, as that they sticke not to search into the very bowels of the earth by all the means they can devise: for some you shall haue (to enrich themselves) for to dig into the ground for mines of gold and siluer, base metall Electrum, Copper and Brasse: others againe vpon a desire of daintie delights and brauerie, to lay for gems and precious stones, for such Minerals (I say) which may serue partly to adorne their fingers, and partly to set out the walls of sumptuous buildings with costly colours, rich marble, and porphyries. Lastly, there bee many, who maintaine rash quarrels, and audacious attempts, spare for no labour to get yron and Steele, and esteeming it better than gold, for cruell warres and bloudie murders. In summe there is not a vaine in the whole earth but wee prie and search into it: we follow it also so farre as it goeth. Thus hauing undermined the poore ground, wee lye and goe aloft vpon it, as ouer hollow vaults and arches vnder our feet: and yet we would seeme to wonder, that otherwhiles she cleaueth asunder into wide and gaping chinkes, or else trembleth and quaketh againe: and wee will not see how these be apparant signes of the wrath of this our blessed mother, which we bring and force from her, to expresse the indignation that she taketh for this wrong and misusage. We descend into her entrails: we goe downe as far as to the seat and habitation of the infernall spirits, and all to meet with rich treasure: as if the earth were not fruitfull enough and beneficiall vnto vs in the upper part thereof, where she permitteth vs to walke and tread vpon her. Howbeit, in all this paines that wee take to ransacke the mines thereof, the least matter of all other is to seeke for any thing that concerneth Physick and the regiment of our health: For among so many masters as there be of mines, where is there one that would be at such expence of digging, in regard of any medicines. And yet I must needs say, that as the earth otherwise is, no niggard, but bounteous and liberall, readie also and easily entreated to bring forth all things good and profitable for vs: so in this behalfe she hath furnished vs sufficiently with wholesome drougs and medicinall simples growing aboue and fit for our hand, without need of digging deepe for the matter. But the things that shee hath hidden and plunged (as it were) into the bottome, those be they that presse vs downe, those drine and send vs to the duell in hell: even those dead creatures (I say) which haue no life nor doe grow at all. In such sort, as to consider the thing aright, and not to captivat our spirits to such base matters, How farre thinke wee, will conuicious minded men pierce and enter into earth? or when will they make

an

* Chrysocolle,
is Gold-fodder.

an end of these mines, hallowing the ground as they doe in all ages from time to time, and making it void G
and emptie? Oh how innocent a life, how happy and blessed, nay, how pleasant a life might we lead, if we
coueted nothing else but that which is above the ground: and in one word, if we stood contented with that
which is ready at hand and euen about vs. But now, not sufficed with the gold which we fetch out of the
mines, we must seeke for the greene earth *Borrax* also, which lieth hard by, yea, and giue it a name respectiue
vnto gold, whereby it might be thought more deare and pretious. For why? we thought not the inuention
and finding out of gold alone to be enough for to infect and corrupt our hearts, vntlesse we made great ac-
count also of that vile and base minerall, which is the very ordure of gold and no better. Men vpon a co-
uetous mind would needs seeke for siluer, and not satisfied therewith, thought good withall to find out *Mine-*
rall vermilion, deuising meanes how to vse that kind of red earth. Oh the monstrous inuentions of mans
wit! What a number of waies haue we found to enhaunce the price and value of euery thing! for painters H
of the one side with their artificiall painting and enameling: the grauers on the other side with their cu-
rious cutting and chasing, haue made both gold and siluer the dearer by their workmanship: such is the
audacitie of man, that hee hath learned to counterfeite Nature, yea, and is so bold as to challenge her in her
workes. And wherein is the art and cunning of these artificers so much seene, as in the workmanship
of such portraictures vpon their gold and siluer plate, which might incite and prouoke men to all kind of vi-
ces: for in proceesse of time we tooke pleasure to haue our drinking boles and goblets engrauen all ouer with
those workes which represent lust and wantonnesse: and our delight was to drinke out of such beaustly cups
which might put vs in mind of sinfull and filthy lecherie: but afterwards these cups also were cast aside
and laid away, men began to make but base account of them: gold and siluer was so plentifull and common,
that we had too much thereof. What did we then? Forsooth we digged into the same earth for *Cassidone* I
and *Crysell*, and we loued to haue our cups and other vessels of such brittle minerals; and the more preci-
ous we held them, as they were more subject to breaking: so as now adates hee is thought to haue his house
most richly furnished, who hath his cupboards best stored with this ticklish ware: and the most glorious
shew that we can make of excessse and superfluitie, is this, To haue that which the least knocke may breake,
and being once broken, the pieces thereof might be worth nothing. Neither is this all, for stay we cannot
here, we are not yet at cost enough, vntlesse we may drinke out of a deale of precious stones. Our cups other-
wise chased, engraued, and embossed in gold, must be set out with *hemeraulds* besides: to maintaine drun-
kennesse, to make a quarrell to carouse and quaffe, we must hold in our hand and set to our mouth the riches
of India. So is, to conclude, our golden plate comes behind pretious stones and pearles, and we count it but
an accessorie and dependant, which may be spared.

CHAP. I.

¶ When mines of gold grew first into request. The beginning of gold rings. The quantitie
of gold in treasure among our ancestors in old time. Of the Cavallerie and
Gentrie of the Romanes. The priuiledge of wearing
golden Rings.



* It is thought
that thereby are
meant certaine
pieces of siluer
coine, stamped
with the por-
traiture of a
bull or ox, cal-
led *Didachma*
& were worth
two drams or
deniers Rome.
Xenophon
describes inter-
change.

H that the vse of gold were cleane gone: Would God it could possibly
be quite abolished among men, setting them as it doth into such a cursed
and excessiue thirst after it, if I may vie the words of most renowned writ-
ters: a thing that the best men haue alwaies reproched and railed at, and the
onely meanes found out for the ruine and ouerthrow of mankind. What
a blessed world was that, and much more happier than this wherein wee
liue, at what time as in all the dealings betweene men, there was no coine
handled, but their whole trafficke stood vpon bartering and exchanging
ware for ware, and one commoditie for another, according as the practise was in the time of the
Troiane war, as *Homer* (a writer of good credit) doth testifie. And in that manner (as I take it)
began first the commerce of negotiation among men for the maintenance of their societie and
liuing together: for so he reporteth, That some bought that which they stood in need of, for
Bœufes hides, others, for yron or such commodities as they had gotten in bootie from their ene-
mies. And yet I must needs say, that euen *Homer* himself esteemed gold of great price, as may
appare by the æstimate that he made thereof in comparision of brasle, when he saith, That *Glauc-*
cus exchanged his golden armour, worth 100 * oxen, for the [braisen] harness of *Diomedes*,
which

A which was valued but at nine *Bœufs*: according to which manner practised in those daies, euen
at Rome also (as may appeare by the old records) there were no other penalties and fines impos-
ed vpon those that transgressed the lawes, but such as consisted in *Bœufes* and *Muttons*, and
vnder that name passed all the amercements that were leuied. Well, a bad example and pres-
ident gaue he vnto the world, who first deuised to wear rings vpon the fingers: but who he was
that did this harm vnto mankind, it appeareth not for certaine vpon any record. For as touching
the reports that go of *Prometheus*, I hold them all but fabulous tales: and yet in all the antient
pictures and portraitures of him, he is to be seene by a generall consent of antiquity, with a ring
of yron: howbeit, I suppose that they represented thereby his bonds and his imprisonment, ra-
ther than any custome that he had to weare a ring as an ornament vpon his finger. And verily
B concerning the ring of *K. * Midas*, which if the collet were turned about toward the palm of the
hand, caused them to go inuisible that sware it: is there any man (thinke you) that judgeth it
not more fabulous than the other of *Prometheus*? But to come more particularly vnto gold, the
greatest credit and authority that it got, was by wearing it in rings vpon the fingers, and those
only and altogether vpon the left hand. And yet this was no fashion at first among the Romanes,
whose manner was to vse no other but of yron, to shew that they were good fouldiers, skilfull
and expert in feats of arms. Whether the antient kings of Rome werewont to haue gold rings
vpon their fingers, I am not able to say for certaine. Sure it is, that the statue of king *Romulus* in
the Capitoll hath none. Neither is there any to be seene in the other statues of the Roman kings,
saue only of *Numa*, and *Servius Tullius*; no nor in that of *Lucius Brutus*: Whereat I maruel much,
and especially at the two *Tarquines* kings of Rome, considering that they were descended of the
Greekes, from whence came vp the first vsage of these gold rings, how soeuer yet at this day in
Lacedæmon there be none worne but of yron. Howbeit, this is recorded and known for a truth,
That *Tarquinius Priscus*, the first of all the *Tarquins*, honoured a sonne of his with a brooch or ta-
bler of gold pendant at his neck, for that whiles he was vnder 16 yeares of age, and as yet in his
Prætexta, hee had killed an enemy in plain fight. And thereupon was taken vp the manner first,
(which also continued afterward) to hang that * ornament about the necks of those gentlemen
sonnes who were men at armes and serued in the wars on horse-backe, in token of knighthood
and cheualrie: whereas other mens sonnes were a riband onely. And therefore great maruell I
haue at the statue of the said prince king *Tarquinius*, surnamed *Priscus*, that it should be without a
D ring on his finger. And yet besides all this, I read, that there hath been some variance and diffe-
rence in old time about the naming of rings: The Greekes imposed a name deriued from the
finger, and called it *Dactylus*. The Latines here with vs in old time named it *Vngulus*: but af-
terwards, as well we as the Greekes termed it *Symbolum*. Certes, long it was first (as appeareth
evidently by the *Chronicles*) ere the very Senators of Rome had rings of gold. For plaine it is,
that the State allowed and gaue rings only to certain especial lieutenants when they were to go
in embassage to forreign nations: and in mine opinion, it was for their credit and countenance,
for that the most honorable personages in strange countries were distinguished from others by
that ornament. And verily, no person (of what degree soeuer) was wont to weare rings, but such
as had receiued them first from the common-wealth vpon that occasion: & so it serued them or-
dinarily in triumph, as a token and testimoniall of their vertue and valour. For otherwise, he that
triumphed in Rome, although there was a Tuscan coronet al decked with spangles of gold, born
vp behind and held ouer his head, had no better than a ring of yron vpon his finger, no more than
the slaue at his back, who haply carried the said Tuscan chaplet. For certainly in that maner tri-
umphed *C. Marius* ouer *K. Incurtha*: and as the *Chronicles* do shew, receiued not a golden ring,
nor tooke vpon him to weare it before his third Consulship. And euen those also who from the
State had golden rings giuen them, in regard of embassage aforesaid, i neuer vsed them but when
they came abroad into open place, for within dores they might wear none but of yron: which is
the reason, that euen at this day the wedding ring which the bridegroom sendeth as a token * of
espousals to his bride, is of yron simply without * any stone set in it. Neither, so farre as I can
F finde by reading, were there any golden rings in vse and request about the time of the Troiane
war: for sure I am, that the Poet *Homer* maketh no mention of them at all, who otherwise spea-
keth of the brauery and rich attire of those times. And when he talketh of writing tabletts, sent
ordinarily in stead of letters missiue, when he writeth of cloths and apparels bestowed in chifts
and coffers, when he telleth vs of vessels, as well gold as siluer plate, he saith they were all bound
and

* Gyges rather,
as appeareth
by Plato, and
Cicero.

* Called *Bulla*,
which was in
forme of the
heart: & after
they were
growne to be-
come, at 17
yeares of age
they offered it
vp to the La-
res: like as
young maidens
marriageable
presented *Pe-
nus* with young
babies of cloths
such as they
were wont to
make and play
withall, as be-
ing now desir-
ous to haue
babes indeed
of their owne
bodies. *Alex-
ab Alex. lib. 3
cap. 25. & lib. 5
cap. 18.*

* It was called
Pronubus *Au-
lus*
* *Antimus* *Antus*

and trussed fast with some sure knot, and not sealed vp with any mark of a ring as the order is in these daies. Moreouer, when he reporteth of any challenge made by the enemy to single fight, and sheweth how the captains fel to cast their seuerall lots for the choise of them which should performe the combat, this was neuer done by the signet of rings, but by some other especiall marks that every one made. Also, when he taketh occasion to speak of the workmanship of the gods, he rehearseth buckles, clasps, and buttons of gold, other jewels and ornaments also belonging to the attire of women, as eare-rings and such like of their making, which at the beginning were commonly made, but he speaketh not one word of golden rings. And verily in my conceit whosoever began first to weare these rings, did it covertly by little and little, putting them vpon the fingers of the left hand, the better to hide them, as if they were ashamed to haue them openly seene: whereas if they might haue auowed the honouring of their fingers by that ornament, they should haue shewed them at the first vpon the right hand. Now if any man object and say, that the wearing them on the right hand might be some impeachment to a soldier for vsing his offensive weapon which he beareth in that hand, I alledge again, that the hinderance was more in the left hand, which serueth to hold and manage the targuet or buckler defensive. I read in the same Poet *Homer* aforesaid, that men vsed to plait & bind vp the tresses of their haire with gold: and therefore I wot not well whether men or women first began the manner of such braiding the locks of the haire.

As touching gold laid vp for treasure, little was there of it at Rome for a long time; for surely, when the city was taken & sacked by the Gauls, and that the Romans were to buy & redeem their peace for a sum of mony, there could not be made in all Rome about one thousand pound weight of gold. Neither am I ignorant, that in the third Consulship of *Cn. Pompeius* there was embezeled and stolne 2000 pound weight of gold out of the throne or shrine of *Iupiter* within the Capitoll, which had bin there bestowed and laid vp by **Camillus*: whereupon many men haue thought, that there was 2000 pound weight of gold gathered for the ranfome of the city. But surely looke what ouerplus and surcrease there was about the foresaid weight of one thousand pound, it was of the very booty and pillage of the French, and taken out of the temples and chappels in that part of the city whereof they were masters. Moreouer, that the Gauls themselves were wont to goe to the wars brauely set out and enriched with gold, it appeareth by this one example of *Torquatus*, who slew a Gaule in combat, and tooke from him a masse collar of gold. Apparant it is therefore, that all the gold, as well that of the Gauls, as that which came from the temples abovesaid, amounted to the said sum, and no higher: to the light and knowledge whereof we come by means of reuelation from Augurie, which gaue vs to vnderstand, that *Iupiter Capitolinus* had rendered againe the foresaid sum in duple proportions. And here by the way there commeth to my remembrance another thing, not impertinent to this place: considering I am to treat againe of rings: when the sexton or keeper of this cell was apprehended, and the question demanded, What was become of the treasure aforesaid of 2000 pound which *Iupiter* had in custody, and which now was out of the way and gone? Hee tooke the stone that was in the collar of his ring which he ware, crackt it between his teeth, and presently dyed thereupon: whereby the truth was not bewraied and reuealed, as touching the theefe that robbed the said treasure. Wel, reckon the most that can be, surely there was not about 2000 pound weight of gold to be had in Rome, when the city was lost, which was in the 364 yere after the first foundation thereof, at what time (as appeareth by the rolls of the Subsidie booke) there were in Rome to the number of 152580 free citizens. And what was 2000 pound in proportion to such a multitude of people. Three hundred and seuen yeres after, when the temple of the Capitoll was on fire, all the gold to be found therein, as also in all the other chappels and shrines arose to thirteen thousand pound weight, which *C. Marius* the yonger seized vpon and conueied away to the city Præneste. And all the same was recovered againe and brought backe againe by *Sylla* his enemy, who vnder that title carried it in triumph, besides seuen thousand pound weight of siluer, which he raised out of the spoile of *Marius*. And yet neuertheless, the day before hee had caused to be carried in a pompe of triumph fiftene thousand pound weight of gold, and one hundred and fiftene thousand pound of siluer, which came of the rest of the pillage gotten by that victorie of his.

But to returne againe vnto our discourse of gold rings: I doe not read that they were ordinarily vsed, before the daies of *Cn. Flavius* the sonne of *Annus*: This *Flavius* beeing otherwise a

man of mean and base parentage, as whose grand fire by the fathers side had bin no better than a slave infranchised: howbeit hauing a pregnant wit of his own, & brought vp daily vnder a good schoolmaster *Appius Claudius* surnamed the Blind (whom he serued as his Scribe, Clerke, or Secretarie) he grew into inward credit and fauor with his master, that for his better aduancement he opened vnto him the whole course of dayes pleadable and not pleadable, exhorting and persuading him withal, to publish that secret and mysterie to the view & knowledge of the whole city: which the said *Flavius* (after much conference and consultation had with *Appius*) did, and effected accordingly, whereupon he became so gracious with the whole body of the people (who were alwaies before wont to hang every day vpon the lips of some few of the chief & principal Senators, for to haue the information and knowledge of the said daies) that in the end a bill promulged by him, passed by generall assent of them all, for to be created *Ædile Curule* together with *Q. Annicius* of Præneste (who not many years before had bin a professed enemy, and born armes against the Romans) without any regard had in this election, either of *C. Petilius*, or *Domitius*, who were nobly born, & had two Coff. to their fathers, who notwithstanding stood for the said dignitie and honorable place. Nay more, This *Flavius* had a speciall grace besides granted, To be at the same time one of the Tribunes also or Prouosts of the Comminaltie. At which indignitie the Senat took such disdaine, and chafed so for despight and anger, that as we read in the ancient Annals and Chronicles of our city, there was not one Senator of them all but laid away his golden rings and gaue vp his place. Many are of opinion (although they be farre deceiued) that the knights and men of arms also did the semblable, and left off their rings the same time. And this likewise goeth current and is generally receiued, That they cast aside the caparifons and trappings of their bard horses; for these be the two badges or markes which cause them to be called Equites, as one would say, knights, men of arms, or horsemen. True it is besides, that in some annals we find it recorded, that it was the nobility only of Rome that gaue ouer their gold rings, and not generally the whole body of the Senat. Wel, how focuer it was, this hapned when *P. Sempronius Longus* and *L. Sulpitius* were Consuls. But *Flavius* abovesaid, seeing what trouble and discontentment was risen hereupon throughout the city, vowed to erect and build a temple in the honor of *Concordia*, if he could reconcile the estate of the Senat, and the order of the gentlemen againe to the common people. And seeing that he could not be furnished with mony out of the common treasure of the city, for defraying of charges requisite to this piece of work, he made means to haue certaine extreme vsurers condemned to pay good round sums of mony: & with these fines a little chappell he caused to be made all of brasie, and reared it in the place appointed for Embassadors out of strange countries to wait and giue attendance in, called *Græco-stasis*, the which was at the head of the publique grand place or hal of assemblies called *Comitium*: where in a table of brasie he tooke order there should be cut and engrauen the verities of the dedication of the said temple, which was 104 yeres after the temple in the Capitoll was dedicated, and in the 448 yere from the foundation of the city. This is the first and most ancient euidence that may be collected out of all the antiquities of Rome now extant, as touching the vsage and wearing of Rings. Another testimonie we haue thereof in the second Punicke War: which implieth, that rings in those daies were vsed more ordinarily, as well by commons, as gentlemen and Nobles: for otherwise, if they had not bin so vsually worn as well by one as another, *Annibal* could neuer haue sent to Carthage those three Modij of rings, which were pluckt from the fingers of those Romans who were slain in the battell of Cannæ. Moreouer, the Chronicles beare witnesse, that the great quarrell betwene *Cepio* and *Drusus* (from which arose the sociall war of the Marsians, and the ruin of the state) grew by occasion of a ring sold in portsale, which both of them would haue had, the one as well as the other. Neither at that time verily did all Senators weare gold rings; for known it hath bin within the remembrance of our grandfathers, that many of them (and such as beare the Pretorship) in their old age, and to their very dying day, neuer wore any other rings but of iron. The same doth *Fenestella* report of *Calphurnius*; and of *Manilius* also, who was Lieutenant vnder *Caius Marius* in the war against King *Iugurtha*. And many other historians affirme the like of *L. Fufidius*, him I meane vnto whom *Scaurus* dedicated that Booke which he compiled of his Life. There is a whole house or family at Rome of *Quintij*, wherein (by ancient custome and order) there was neuer any known, so much as the very women, to weare any gold about them. And euen at this day, the greater part of those nations and people who liue vnder the empire of Rome, know not what these rings mean. All the coun-

tries of the East throughout, and Egypt generally, at this time content themselves with simple writings and bare scripts, without any seale or signe manuel set vnto them. But so far off are we in these daies from keeping vs to the plain hoop rings of our ancestors, that as in all things els, so in them also we loue to change and alter euery day, so giuen we are to excesse and superfluitie: for now, many must haue curiously set in their rings, pretious stones of excellent beautie and most exquisite brightnesse; and vnlesse their fingers be charged and loden again with the riches and reuenues of a good lordship, they are not adorned and decked to their mind. But I purpose more fully to speake hereof in my treatise of gems and pretious stones. Others again will haue in their rings and stones sundry figures and portraictures as they list themselves engrauen, that as there be some rings costly for the matter, so others again should be as pretious for the workmanship. Yee shall haue many of these wantons and delicate persons make conscience (forsooth) to cut and engraue some of their pretious stones, for hurting them; and (to shew that their rings serue for somewhat else than to seale and signe withall) doe set the said stones whole and entire as they be. And diuers there are who will not enclose the stone with gold on the inside of the collet which is hidden with the finger, to the end (forsooth) that it may touch the naked skin and be seene through. And such an opinion they haue of these stones, that gold is worth nothing in comparifon of many thousands of them now in vse and request. Contrariwise, many there are who will haue no stone at all in their rings, but make them all of massiue gold, and therewith do seale: a deuise that came vp in the time of *Claudius Caesar* the Emperor. Furthermore, in these our daies some slaues set iron within a collet of gold, in stead of a stone; and others again hauing their rings of iron, yet they adorn and set them out with the most pure and fine gold that may be had. This licence (no doubt) and libertie of wearing rings in this order, began first in Samothrace, as may appeare by the name of such rings, which therefore are called Samothracia. Now to come again to our golden rings: The manner was in old time to weare rings but vpon one finger onely, and namely that which is the fourth or next to the little finger, as we may see in the statues of *Numa* and *Servius Tullius*, Kings of Rome: but afterward they began to honour the fore-finger which is next vnto the thumbe, with a ring, according to the manner which we see in the images of the gods: and in proceffe of time they took pleasure to weare them vpon the least finger of all: and it is said, that in France and Brittain they vsed them vpon the middle finger. But this finger now adayes is excepted onely and spared, whereas all the rest be sped and charged with them; yea and euery joint by themselves must haue some lesser rings and gemmalls to fit them. Some will haue the little finger loden with 3 rings; others content themselves with one and no more vpon it, wherewith they vse to seale vp the signet that is to signe ordinarily, for this signe manuel (I may tell you) the manner was to lay vp safe among other rare and pretious things: this might not come abroad euery day, as beeing a jewell that deserued not to be misused by handling commonly, but to be taken forth out of the cabinet or secret closet neuer but when need required: so that whosoever weareth one ring and no more vpon the least finger, hee giueth the world to vnderstand, that he hath a secret cabinet at home stored with some speciall things more costly and pretious than ordinarie. Now, as some there be that take a pride and pleasure to haue heavy rings vpon their fingers, and to make a shew how massiue and weighty they are; so others againe are so fine and delicat, as they thinke it a paine to weare more than one. Some hold it good, for sauing of the stone or collet (if the Ring should chance to fall) to haue the round hoope or compasse thereof wrought hollow or enchased within, yea and the same filled vp with some lighter matter than is gold, that it may fall the softer. You shall haue many that vse to carry poyson hidden within the collet vnder the stone, like as *Demosthenes* did, that renowned Prince of Greeke Orators; so as their rings serue for no other vse or purpose but to carry their owne death about them. Finally, the greatest mischiefs that are practised by our mighty men in these dayes, are for the most part performed by the meanes of rings and signets. O the innocence of the old world! what a heavenly life led men in those dayes, when as there was no vse at all of seale and signet? But now we are faine to seale vp our ambries and hogsheads with our signets, for feare we be robbed and beguiled of our meat and drinke. This is the good that commeth of our legions and troupes of slaues, which we must haue waiting and following at our heeles: this commoditie we haue by our traine and retinue of strangers that wee keepe in our houses: inso much as wee are driven to haue our Controuerses and Remembrancers to tell vs the names of our Seruants and people

* Remembrancers.

people about vs, they are so many. It was otherwise ywis by our ancestors and fore-fathers daies, who had no more but one yeoman or groomer a piece, and those of the linage and name of their Lords and Masters: as may appeare by the ordinary names of *Marci-pores*; and *Luci-pores*: and these had all their vituals and diet ordinarily at their masters board. And therefore there was no great need to keep safely any thing vnder lock and key from such household seruitors: whereas now adayes the cater goeth to the market to provide cates and viands for to be stollen and carried away as soon as they come home, and no remedy there is against it: for no seale will serue to make sure either such lurchers themselves for fishing, or keep the very locks and keyes safe and whole that lead to the prouision. And why? an easie matter it is to plucke the rings from their lord and maisters fingers that are oppressed with dead sleep, or when they lie a dying. And verily we hold in these daies a seale to be the best assurance in contracts that may be: but I wot not how long it is since that custom first came vp. And yet if we consider the fashions and manners of strange Nations, we may peradventure find how these signets came into such credit and authoritie: and namely by the History of *Polyrates* the Tyrant or King of the Ile Samos; who hauing cast into the sea a ring which he loued and esteemed aboue all other jewels, met with the same againe by meanes of a fish which was taken in the belly wherof the said ring was found. Now this king was put to death, about the two hundred and thirtieth yeare after the foundation of our citie. Howbeit, the ordinarie vse of these signets (as I suppose by all reason and likelihood) began together with vsurie: for prooue whereof, marke how still at this day, vpon any stipulation and bargaine passoll made, off goes the ring presently to confirme and seale the same. The which custome no doubt came from old time, when there was no earnest nor gods-pennie more ready at hand than a signet. So as we may conclude assuredly and affirme, That amongst vs here at Rome, when the vse of money and coyn was taken vp, soone after came the wearing of rings in place. But as touching the deuise and inuention of money, I will write anon more at large.

And now to return againe to my discourse of rings: after they began once to bee in any request, there were none at Rome vnder the degree of a knight or gentleman that carried rings on their fingers; inso much, as a man might know a gentleman from a commoner by his ring, like as a Senator was distinguished from the Gentlemen, wearing rings, by his coat embroidered with broad gards and studs of purple. Howbeit, long it was before this distinction was obserued: for I find that the publicke criers were ordinarily such coats likewise embroidered, as Senators do: as appeareth by the father of *L. Atilius Stilo*, tyrannized vpon that occasion *Praconimus*, because his father had bin a publicke Crier. Certes, these rings certified the middle degree, inserted between the Commons and the Nobles; and that name which in times past horses of seruice gaue to men of armes and gentlemen of Rome, the same now adayes sheweth men of worth, and those who are of such and such reuenues. But long it is not since this disorder and confusion begun. For whenas *Augustus Caesar* late Emperour of happy memory, ordained decuries of Iudges in criminal matters, the greater part of them consisted of those who were no other rings but of yron: and those were simply called Iudges, and not Knights or Men of armes; for this name continued still appropriat to the troupes of those gentlemen who serued vpon horses allowed by the Senat. Moreover, at the first there were no more but foure decuries of Iudges, and hardly might there be found in each of those decuries, a bare thousand foras yet those of our prouinces might not be admitted to this estate to sit and iudge vpon criminal causes: and even at this day precisely obserued it hath bin, That none but ancient citizens might be Iudges: for euery one that came newly to their free burgeoisie, were taken into this order and degree.

* the pages or groomes of Marcus or Lucius.

* Who theretofore were called Equites.

* Iudges of the new burgh.

CHAP. II.
Of the Decuries or Chamber of Iudges vpon record at Rome. How often the name and title of the Roman Cavallerie changed; The gifts and rewards represented vnto valiant soldiers for their brave service. And at what time Coronets of gold were reene.

The chamber of the fore said Iudges consisted of diuers estates and degrees, distinguished by severall names: for first and foremost, there were of them called *Prætoribus*, and *Quæstibus* Generall

Generall receiueurs or Treasurers: secondly, *Selecti*, chosen from among the Senators: and last of all, those who simply were named *Iudices* or Judges, taken from among the knights or men of armes.ouer and besides these, they had others called *Nongenti*, choice men selected from out of all the estates, who had the keeping of those chests or caskets wherein were put the voices of the people in their solemn elections. And by reason of a proud humor in men, choosing themselves names to their owne liking, great diuisions and factions arose in this house and chamber of the foresaid Iudges, whiles one would needs be called *Nongentus*, another *Selectus*, and a third gloried in the title of *Tribune* or *Receiuer*. But at length, in the ninth yere of the reigne of the Emperor *Tiberius Caesar*, the whole estate of the gentrie or cauallerie of Rome, was reduced to an vniformitie: and an order was set downe whereby it was knowne who might wear rings, and who might not: which fell out to be in that yere when *C. Asinius Pollio*, and *C. Antistius Vetus* were Consuls together, and in the 775 yere after the foundation of Rome city. And verily this vniforme regularity was occasioned by a trifling cause to speak of, and whereat wee may well maruell: and thus stood the case: *G. Sulpitius Galba* desirous in his youth to win some credit with the foresaid Emperor *Tiberius*, and namely, by deuising meanes how to bring *Taverns*, *Cooks shops*, and *vitualing houses* in danger of the law, and to forfeit penalties; pleaded against them, and complained before the Senat. That those who were the vnder-takers and Tenants as it were of the foresaid *Taverns*, &c. and made their gaine thereby, had no other meanes to beare themselves out, nor plea to defend their faults and disorders, but their rings. The Senat taking knowledge hereof, ordained an act, That none from that time forward might be allowed to weare the said rings, vnlesse he were free borne, and that both himselfe, his father, and grandfire by the fathers side were assessed in the Censors booke 400000 sesterces; and by vertue of the law *Iulia* as touching the publicke Theatre, had right to sit and behold the plaies in the first and foremost 14 ranks of seats for knights appointed. Howbeit afterwards, euery man labored and made means one with another, to be allowed to weare this ornament of a ring. Now in regard of these disorders and variances aboue rehearsed, prince *Caius Caligula* the Emperour, adjoynd to the former foure, a fifth Decurie. And shortly after, men grew to that height and pride in this behalfe of wearing rings, and the company so surcreased, that whereas in *Augustus Caesars* dayes there could not be found knights and Gentlemen sufficient throughout all Rome to furnish those Decuries, by this time they could not be contained all within the Chamber of Iudges or Decuries aboue said: insomuch as now adayes, no sooner are there any slaues manumifed and enfranchised, but presently (by their good will) they must be at their rings. A thing that neuer before was knowne in Rome: for aforesime when a man spake of the iron ring, he was vnderstood presently to point at the Gentlemen and Iudges before named: but the said ornament or badge became so commonly to be taken vp by one as well as another, that a gentleman of Rome (*Flavius Proculus* by name) indicted 400 at once before *Claudius Caesar* Censor for the time being, and declared against them for this abuse and offence. See what inconuenience infused vpon the act of rings! for whilste thereby a distinction was made between that degree & other free-borne citizens, straight waies base slaues leapt in, and were so bold as to take that ornament vpon them: And hereby the way is to be noted, that the two *Gracchi*, *Tiberius*, and *Caius*, brethren, vpon a certain desire and inbred affection that they had to maintaine and nuzzle the people in sedition, and to beare a side alwaies against the Senat, for to counter-balance with the Commons and to do them a pleasure, deuised first to haue all themselves called Iudges, who by vertue of the foresaid statute or edict, might wear rings: and this he did to cross and beard the *Schat*. But after the fire of this sedition was quenched, and the popular authors thereof who stirred & blew the coles were murdered, the denomination of these criminal Iudges (after diuers troubles and seditions with variable and alteratiue fortune) fell in the end to the Publicans and Farmers of the reuenues of the State, and being thus deuolued vpon them, there continued: insomuch as for a good while the said Publicans made vp the third degree betweene the Senators and the Commons. Howbeit, *M. Cicero* when he was Consul re-established the Knighthood & Cauallerie of Rome in their former estate and place, and so far perswaded, that hee reconciled them againe vnto the Senat: giuing out openly, that he himselfe was come of that degree, and by that means by a certain popularity, sought to draw them all to side with him. From this time forward, the men of armes were installed as it were in the third estate of Rome, insomuch as edicts and publick acts passed in the name of the Senat, People, and Cauallerie of the citie. And for that

* Who onely indeed were to judge causes,

A that these knights or gentlemen were last incorporated into the body of the Common-weale, this is the only reason that euen now also they are written in all publicke Instruments, after the People.

As touching the name or title, attributed to this third estate or degree of Horsemen or men of Arms, it hath bin changed and altered oftentimes: for in the daies of *Romulus* and other *KK*. of Rome, they were called *Celeres*, afterwards *Flexumines*, and in proesse of time *Trossuli*, by occasion that these horsemen without any aid at all of the Infanterie, had woon a towne in *Tuscane* nine miles on this side *Volfinij*, called *Trossuli*: which name continued in the Cauallerie of Rome, vntill the time of *C. Gracchus* and afterward. And verily *Iunius* (who vpon the great amitie betwene *Gracchus* and him, was surnamed *Gracchanus*) hath left these words in writing as touching this matter: concerning the degree of knights (quoth hee) those who now are called Equites, [*i. Horsemen*] beforetime had to name *Trossuli*: the change of which name arose vpon this, that many of these Gentlemen, ignorant in the original and first occasion of the foresayd name *Trossuli*, and what the meaning thereof was, were ashamed so to be called. He alledgeth moreouer the cause of the said name: and yet notwithstanding (quoth hee) they cannot away with the name at this day, but are so called against their wils.

To come again vnto our former discourse of gold. There be yet some other points besides, to be considered therein, which cause distinction in diuers conditions of men: for our ancestours, willing at all times to honour those souldiers who had borne themselves valiantly in wars, were wont to bestow chains of gold vpon strangers and auxiliaries, such I meane as came to ayd and succour the Romans: but vnto their owne naturall citizens they gaue none other but of siluer: and true it is, that Roman citizens had bracelets giuen them ouer and aboue, which forreiners had not. They were wont also (a thing to be maruelled at) to giue vnto citizens, coronets of gold: but who he was whom they honored first with this reward, I could neuer find in any Chronicle: and yet *L. Piso* hath set downe in his Annals, the first giuer thereof: for *A. Posthumus L.* Dictator (quoth he) vpon the winning of the fortified campe of the Latines neare the Lake *Regillus*, was the first that bestowed vpon that souldier, by whose valorous seruice principally the said bold was forced, a coronet of gold; which he caused to be made of the pillage taken from the enemy. *L. Lentulus* in like manner, being Consul gaue a crowne of gold vnto *Sergius Cornelius Merenda*, at the winning of a certaine towne within the Samnites countrey. Semblably *Piso* surnamed *Frugi*, bestowed vpon his owne sonne a Coronet of gold weighing siue pound, which hee caused to be made of his owne priuate money: and yet amongst other Legacies in his last Will and Testament, the said Coronet hee bequeathed to the State and Common-wealth of Rome.

CHAP. III.

Other uses besides of gold, as well in men as women. Of Gold, in money. When Brasse, Siluer, and Gold, were first stamped and coined. Before Brasse was conuerted into stamped money, how they used it in old time. At what rate and proportion of money were assessed the best houses of Rome, at the first leuying of Subsidies. And at what time gold came into credit and request.

ALL the gold imploied in sacrifices to the honor of gods, was in gilding the horns of such beasts as were to be killed, and those onely of the greater sort. But in warfare among souldiers, the vse of gold grew to excessiue, that the field and campe shone againe withall, insomuch as at the voiage of Macedonia, where the Marshalls of the field and colonels bare Armour set out with rich buckles and clasps of gold, *M. Brutus* was offended and stormed mightily at it, as appeareth by his letters found in the plaines about Philippi. Well done of thee, *O M. Brutus*, to find fault with such wastfull superfluitie: but why saidst thou nothing of the gold that the Roman dames in thy time, wore in their shooes? And verily this enormity and abuse, I must needs impute vnto him (whosoever he was) that first deuised rings, and by that means caused gold to be esteemed a metall of much worth: which euill precedent brought in another mischief as bad as it, which hath continued a long time; namely, that men also should weare about their arms, bracelets of gold next to their bare skin: which deuise and ornament of the arm

is called Dardanium, because the inuention came from the Dardanians: like as the fine golden carkanets Viriæ, we teame Celticæ; and the necke-laces of gold Viriolæ. Celtibericæ. Oh the monstrous disorders that are crept into the world! But say that women may be allowed to weare as much gold as they will, in bracelets, in rings on euery finger and joynt, in carkanets about their necks, in earings pendant at their ears, in staies, wreaths, & chinbands; let them haue their chains of gold as large as they list vnder their arms or crosse ouer their sides, scarfe-wife, be gentlewomen and mistresses at their collars of gold, beset thicke and garnished with massie pearls pendant from their necke, beneath their waist; that in their beds also when they should sleepe they may remember what a weight of gold they carried about them: must they therefore weare gold vpon their feet, as it were to establish a third estate of women answerable to the order of knights, betwene the matrons or dames of honour in their side robes, and the wiues of meane commoners? Yet me thinkes, we men haue more reason and regard of decencie, thus to adorne with brooches and tablets of gold, our youths and yong boies, and a fairer sight it is to see great men attended vpon to the baines by beautifull pages thus richly decked and set out, that all mens eies may turne to behold them. But what meane I thus bitterly to inueigh against poore women; are not men also growne to such outrageous excesse in this kind, that they begin to weare vpon their fingers either Harpocrates, or other images of the Ægyptian gods engrauen vpon some fine stone? But in the daies of the Emperor Claudius there was another difference and respect had, That none might carrie the pourtraiture of that prince engrauen in his signet of gold, without expresse licence giuen them by those gracious enfranchised slaues who were in place to admit vnto their lord the Emperor, whom it pleased them: which was the occasion and means of bringing many a man into danger, by criminal imputations. But all these enormities were happily cut off as soon as the Emperour Vespasian (to the comfort and joy of vs all) came once to the crowne: for by an expresse edict, he ordained, That it might be lawfull for any person whatsoever to haue the image of the Emperour in ring, brooch, or otherwise without respect. Thus much may suffice concerning rings of gold, and their vsage.

To come now to the next mischiefe that is crept into the world; I hold that it proceedeth from him who first caused a denier of gold to be stamped: although, to say a truth, I know not certainly who he was that deuised this coine. As for the people of Rome, sure I am that before king Pyrrhus of Epirus was by them vanquished, they had not so much as siluer money stamped and currant. Well I wot also, that in old time the manner was to weigh our brasse by the Asse, which was a pound weight, and thereupon called As Libralis, and yet at this day, Libella: like as the weight in brasse of two pound, they named Dipondius [As.] And hereupon came the custome of adjudging any fine or penaltie vnder the teame of [Æris grauis] that is to say, of brasse Bullion or in Masse. From hence it is also, that still in reckonings and accounts whatsoever hath bin laid out or deliuered, goeth vnder the name of Expensa [id est, Expences] as a man would say, weighed forth, because in times past all payments passed by weight. The Latines likewise vse the nowne Impendia, for cost bestowed, or the charges of interest in vsurie about the principall; euen as the verbe Dependere, betokeneth (to pay) because payments ordinarily were performed by poise. Moreover, the vnder treasurers of war, or paymasters in the camp, were in ancient time named Libripendes, for weighing out vnto the souldiers their wages; and their very pay thereupon was called Stipendium, from whence cometh Stipend, a word commonly receiued. According to which manner and custome, all buyings and sellings at this day which passe with warrantise, are vsually performed by interposition of the ballance, which serueth to testifie the realitie of the contract and bargain on both parts.

Touching brasse money, Seruius Tullius a king of Rome, caused it first to be coined with a stampe, for before his daies, they vsed it at Rome rude in the masse or lumpe, as Remus mine author doth testifie. And what was the marke imprinted thereupon? euen a sheepe, which in Latine they call Pecus: and from thence proceedeth the word Pecunia, that signifieth money. And note here by the way, that during the reigne of that king, the best man in all Rome was valued to be worth in goods not about 100000 Asse in brasse: and at this rate were assessed the principall houses of the city in the kings bookes: and this was counted the first Classis.

Afterwards, in the 485 yere from the foundation of the city, when Q. Ogulnius and C. Fabius were Consuls, five yeres before the first Punicke warre, they began to stampe siluer money at Rome, and three feuerall pieces were coined. At what time ordained it was, That the Denarius

* Called also Sigalion.

* He speaketh
nam sequente,
as I take it; for
Denarius was
a siluer piece:
but he meaneth
any piece
of coine.

or Denier should goe for tenne Asse or pounds of brasse money; the halfe Denier, Quinarius, should be currant for five; and the Sesterce reckoned worth two and a halfe. Now, for as much as during the first Punicke war against the Carthaginians, the city was growne much behind hand and farre indebted, so as they were not able to goe through the charges which they were to defray, agreed it was and ordained to raise the worth of the brasse money by diminishing the poise: whereas therfore the Asse weighed a pound of twelue ounces, they made the Asse of two ounces: By which deuise, the Commonwealth gained five parts in six; and the Fisque or city chamber by that means was soone acquit of all debts. But if you would know what was the marke of this new brasse Assen of the one side it was stamped with a two faced Ianus, on the other side with the beake-head of a ship, armed with brasse pikes. Other smaller pieces there were, according to that proportion, to wit, Trientes, the third part of an Asse; and Quadrantes the fourth; which had the print of * punts or small boats vpon them. As for the piece Quadrans, it was before time called Triuncis, because it weighed three ounces. Howbeit in proceesse of time, when Anniball pressed hard vpon the city, and put them to an exigent for money to maintaine the wars against him, driuen they were to their shifts and forced (when Q. Fabius was Dictator) to bring downe the foresaid Asse of two ounces vnto one. Yea, and enacted it was, That the siluer denier, which went before time for ten Asse, should be worth * sixteene; the halfe Denier or Quinare, eight; and the Sesterce foure: and by this means the State gained the one halfe full. And yet I must except the money paid to souldiers for their wages: for a Denier vnto them was neuer reckoned about ten Asse. As for the siluer Deniers, stamped they were with the pourtraiture of coches drawne with two horses or foure horses, whereupon they were called Bigati and Quadrigati. Within a while after there passed an act promulged by Papyrius, by vertue whereof the Asse weighed not about halfe an ounce. Then came Livius Drusus in place, who being one of the Prouosts or Tribunes of the commons, brought in base money, and delated the siluer with one eighth part of brasse. Touching that piece of coine, which now is called Victoriatus, stamped it was by an Act propoed by Clodius, for before his time, those pieces of money were brought out of Sciaonia, and reckoned as merchandise: and stamped it is with the image of Victorie, of which it tooke that name.

Concerning gold coined into money, it came vp threescore and two yeres after the stamping of siluer pieces: and a scripture of gold was taxed and valued at twenty sesterces, which ariseth in euery pound according to the worth of sesterces as they were rated in those daies, to nine hundred Sesterces. But afterwards it was thought good to cast and stampe pieces of gold, after the proportion of fiftie to a pound: And those, the Emperors by little and little diminished still in poise, till at length Nero brought them downe to the lowest, and caused them to be coined after the rate of five and fiftie pieces to the pound. In summe, the very source and originall of all auarice proceedeth from this money and coine, deuised first by lone and vsurie, and continued still by such idle persons that put forth their money to worke for them, whiles they sit still, and find the sweetnes of the gaine comming in so easily. But this greedy desire of hauing more still, is growne after an outrageous manner to be excessiue, and no more to be named couetousnesse, but rather insatiable hunger after gold: in so much as Septimuleius, an inward and familiar friend of C. Gracchus, forgat all bonds of amitie, and hauing cut off his friends head, vpon promise to haue the weight of it in gold, brought the same vnto Opimius: howbeit, he poured molten lead into the mouth thereof to make it more heauie, and so together with this parricide and vnnatural murderer, couened also & beguiled the Commonweale. But to speak no more of any particular citizen of Rome, the whole name of the Romanes hath beene infamous among foraine nations for auarice and corruption in this kind: as may appeare by the conceit that king Mithridates had of them, who caused Aquilus (a Generall of theirs, whose hap was to fall into his hands) for to drinke molten gold. See what couetousnesse brings home with it in the end.

Now when I behold and consider no more but these strange names of our vessell in plate, which are newly deuised in Greek from time to time, according as the siluer is either double or parcell gilt, or the gold enclosed and bound within worke, I am ashamed of it; and the rather, for that in regard of these deuised names and daintie toies, such plate as well of beaten gold, as gilded only, should be so vendible and sell so deare: especially knowing as we do full well, the good order that Spartacus held in his campe, expressly commanding that no man should haue any plate of gold or siluer. A great reproch to vs Romans, that our fugitiues & banished persons should

* And therfore they were called Rattii of Ratis.

* Ordinarily the Romanes siluer Denier had the letter X stamped vpon it, but these Deniers had X P I P S I N I

should shew a more nobler spirit than we our selues. *Messala* the great Oratour hath left in writing, That *M. Antonius* vsed to discharge all the ordure and filthy excrements of the body into vessels of gold; yea, and allowed *Cleopatra* likewise to do the same by her monthly superfluities, most shamefully. Noted it was among forrein Nations for excessiue licentiousnesse, and that in the highest degree, that *K. Philip* of Macedony was neuer wont to go to bed and sleepe without a standing cup of gold vnder his pillow: also, That *Agnon Teius* (a great captain vnder *Alexander the Great*) was giuen to such wastfull prodigality, as to fasten his shooes and pantophles with buckles of gold. But *Antony* about named, to the contumelie and contempt of * Nature, abused gold, and imploied it to the basest seruice that is: an act (as much as any other) deseruing pro- scription and outlawing indeed.

* Which had giuen vs gold for vessels of honour.

* For in al they were to pay 10000 talents: reckon a talent at 60 pound, which is the left. Atticke, * *Folia*, I think rather *folia*, i. bathing vessels.

* Some say 75.

But among diuers things besides, I wonder much at this, That the people of Rome, vpon the conquest of so many Nations, imposed vpon them a tribute to be paid alwaies in siluer, & neuer made mention of gold: as for example, when Carthage was subdued, & *Annibal* vanquished, the Carthaginians were inioined for 50 yeres together to make payment yerely of * [12000] pound of siluer only, and no gold at all. Neither can it be thought that there was little gold at that time to be had abroad in the world; for *Midus* and *Crasus* both, were posselt of infinit sums and huge masses of gold: and *Cyrus* vpon his conquest of Asia, met with 34000 pound weight of gold, besides the golden plate and vessell, and other gold which he found ready wrought: and among the rest, certain * leaues, a Plane and a vine-tree, both of beaten gold. In the pillage also of this victory, he gaue away 500000 talents of siluer, and one standing cup that he tooke from *Semiramis*, that weighed 15 talents. And *Varro* mine Author saith, That the poise of the Egyptian talent ariseth to * 80 pound. Besides, there had raigned before time ouer the Colchians, *Saluaces*, and one *Esiobops*: who hauing newly broken vp a piece of ground in the Samnians country, is reported to haue gotten out thereof great store of siluer and gold: notwithstanding that the whole kingdome is renowned for the golden fleeces there. And verily this prince had the arched and embowed rouses of his pallace made of siluer and gold: the beames and pillars also sustaining the said building, yea, the jambes, posts, principals, and standards, all of the same mettall; namely, after he had vanquished *Sesostres* k. of Egypt, so proud a prince, that (as *Chronicles* make mention) he was wont euery yere to haue one or other (as the lot fell out) of those kings who were his tributaries and did homage to him, for to draw in his charriot like horses, when he was disposed to ride in triumph. These and such like things haue bin thought fabulous tales: but haue not our Romans done semblable acts, which the age and posterity hereafter wil think incredible? *Cesar* afterwards Dictatour, was the first that in his Edileship, when hee exhibited a solemne memoriall in the honour of his father departed, did furnish the whole Cirque and shew-place, with all things meet for such a solemnity, of cleane siluer, in so much as the chafing stauies and bore-speares were of siluer, wherewith the wild beasts were assaulted: a spectacle neuer seene before. And not long after, *C. Antonius* set forth his plaies (when he was Edile) vpon a stage or scaffold of siluer: after whose example, diuers free cities and townes of the empire haue don the like. Semblably, *L. Murana* and *C. Caligula* the Emperor, erected a frame or pageant to go and rise vp of it selfe with vices, supporting images and jewels in the place of publick pastimes, which was thought to haue in it 124000 pound of siluer. *Claudius Cesar* who succeeded Emperor after him, when he rode in triumph for the conquest of Brittain, among other crownes of beaten gold, shewed two that were principall, the one of 7 pound weight, which high Spaine had giuen to him; the other weighing 9 pounds, sent vnto him as a Present from that part of Gaule which is called Comata: as appeared by the inscriptions and titles which they bare. *Nero* his successour, to shew vnto *Tyridates* king of Armenia what abundance of treasure he had, kept the great Theatre of *Pompeius* for one whole day couered all ouer with gold. But what was that furniture in comparisn of his golden house, which tooke vp a great part of the city, and seemed (as it were) to compasse it about. In that yere when *Sex. Iulius*, and *Lucius Aurelius* were Consuls (which fell out to be 7 yeres before the third Punicke warre) there was found in the treasury or chamber of Rome, * 700026 pound weight of gold, in Masse or Ingots; M of siluer likewise in Bullion, 92000 pound weight; besides the coine and ready money, which amounted to 375000 Sesterces. The yere wherein *Sex. Iulius* and *L. Marcius* were Consuls, to wit, in the beginning of the sociall warre against the Marcians and other Romane allies, the treasure of Rome arose to 846 pounds of gold in Bullion. *C. Cesar* at his first entrance into the

* According to *Budens*.

A the city of Rome, when the ciuill war between him and *Pompey* was begun, took out of the citie chamber 150000 wedges or ingots of gold, 35000 lumps or masses of siluer, and in ready money 400000 Sesterces. And to say a truth, neuer was the city of Rome wealthier than at this time. Moreouer, *Amplius Paulus*, after he had defeated and vanquished *Perseus* the Macedonian King, brought into the Treasury of the Citie a boorie of 3000 pound of gold in weight. After which time the common people of Rome had neuer any tributes or taxes leuied of them by the State.

Moreouer, this is to be obserued, That after the ouerthrow and destruction of Carthage, the beames began first to be guilded within the temple of the Capitoll, whiles *Lu. Mummius* was Censor. And now adaies you shall not see any good house of a priuat man, but it is laid thicke and couered ouer with gold. Nay, the brauery of men hath not staied so, but they haue proceeded to the arched and embowed rouses, to the walls likewise of their houses, which we may see euery where as wel and thoroughly guilded as the siluer plate vpon their cupbours. And yet *Catulus* was diuersly thought of in the age wherein he liued, because he was the first that gilded the brazen tiles of the Capitoll.

Touching the first inuentors, as well of gold, as also of all other mettals to speake of, I haue already written in my seuenth booke. As for the estimation of this mettall, that it should bee chiefe as it is, I suppose it proceedeth not from the colour, for siluer hath a brighter lustre, more like to the day, and in this respect more agreeable to the ensignes of war than that of gold, because it glittereth and shineth farther off, and hereby is their error manifestly conuincid, who commend the colour of gold, in this regard, that it resembleth the starres: for well it is knowne that their colour is not reputed richest, either in precious stones or in many things besides. Neither is gold preferred before other mettals, because the matter is more weighty or pliable than the rest, for lead surmounteth it, both in the one and the other. But I hold, that the reputation which it hath, commeth from hence, That it alone of all things in the world, loseth nothing in the fire: for say that a house be burnt wherein gold is, yet it wasteth not: and looke what gold is committed to the funnell flames, it consumeth not with the dead body, but is found all againe among the ashes. Nay, the oftener it hath bin in the fire, the better it is, and the more refined: in such sort, that the best gold which they call *Obryzum*, is knowne by this, if it be of the same deep red colour that the fire is wherein it is tried. And a principal argument this is of fine gold, D if it hardly be kindled, & set on fire red hot. Moreouer, this is wonderful in the nature of * gold: that in a fire made of light straw or chaffe, it wil most quickly become red hot and melt, but the same among the hottest burning coles that can be of wood, ynneath or hardly wil it yeeld to the heat thereof and resolute: as also for the purifying thereof, it ought to be melted with lead. A greater reason there is besides that maketh gold so precious: for that with vs or handling there is little of it lost and wasted, whereas siluer, brasie, and lead, if you draw any lines therewith, colour as they go and leaue somewhat behind: they soile their hands also who occupie the same with the substance and matter that sheedeth from them. Quer and besides, there is not a mettall will be driuen out broader with the hammer, or diuide easily into more parcels than gold, in so much as euery ounce of it may be reduced into 750 leaues, or more, and each one of them foure fingers large euery way. The thickest gold soile beareth the name at this day of *Prænesteum*, for that the image of Fortune at *Præneste* is aboute all other most richly guilded. The next thereto in goodnesse is the soile or leafe of gold named *Quæstoria*. In Spaine they vse to call by the name of *Strigiles*, the small pieces of that fine gold which is found naturally alone aboute al the rest either compact in some masse, or in manner of sand or grauell; whereas all other parcels of gold taken out of the Mines, need to be fined and brought to their perfection by the meanes of fire. But this gold that I speake of, is gold presently at the first, and no sooner is found, but the matter thereof by and by is consummat and accomplished. Loehow gold is found in the owne nature pure and perfect. As for the other manner of finding and fining gold, wherof I meane to speake anon, it is forced (as it were) and vpon constraint. But aboute all other properties to commend the goodnesse of gold, this especially is to be obserued, That there is no rust nor canker, nor any filth besides breeding of it selfe therein, which is able either to corrupt the goodnesse, or diminish the weight and substance thereof. What should I say how firme it continueth and dureable against salt and vineger, scorning all their iniuries: and yee otherwise their moisture is able to eat into any other mettals, yea, and to consume and raine all things else

* This haply may be true in ore, for other, wife in fine gold it is not for & the finer that it is, the stronger fire it asketh to be melted by.

els whatsoeuer. But this passeth all, that spun it may be as wooll and silke, wouen also in manner of yeare, chuse whether you wil work it twisted with [silke] thred, or single in wire by it selfe. *Verrius* the Historiographer reporteth, that *K. Tarquinius*, turnamed *Priscus*, rode in triumph in a robe of wrought gold. I my selfe haue scene the Emperesse *Agrippina*, wife to *Claudius Caesar*, sitting by her husband the Emperor to behold the braue shew of a nauall skirmish vpon the water which he exhibited, all gorgeously arrayed in a roiall mantle, wouen without any other matter saue onely pure gold. Cloth of gold and tisseue I know there is besides, called *Vestis Attalica*, wherein gold is wrought with other stufte: and long since it is, that this inuention hath been deuised by the rich and sumptuous kings of Asia. Furthermore, to guild marble or any other thing that wil not abide to be guilded by the fire, gold foile must be laid on with the white of anegge. As for wood and timber, they vse to guild it by the means of a certaine compound glue or size, which is commonly called * *Leucophoron*: but what a glue this is, and how it is made, I will declare in place conuenient. As touching the manner how to guild brasse, it was performed ordinarily heretofore by quick siluer naturall, or els artificiall named *Hydrargyron*: & herein there hath bin deuised much fraud and deceit; according as I wil hereafter shew in their proper chapters, when I purpose to set down their nature and properties. But now after that brasse hath bin much knocked and beaten, they vse to put it into the fire: and so soon as it is perceiued red hot, they quench it again in salt, vinegar, and allum. Now afterward, when it is well scoured and clenfed with sand, and knowne by the brightnesse and lustre thereof that it hath bin sufficiently frobished and purified, again it must into the fire to take a new heat by the ardent exhalation thereof; that beeing thus (as it were) mortified and besmeared with a size of the pumish stone, allum and quick siluer mixt together, it may take vp gold foile laid vpon it the better, and keep it more surely. To conclude, allum hath the very same vertue to trie and clenfe gold, as I said before Lead had.

*or *Chrysopero*.

CHAP. III.

¶ The manner of finding gold naturally in the Mine. When were knowne the first staines of gold. The medicinable vertues and properties of gold.

IN these parts of the world wherein we liue, gold mines are found: so that we need not to stand so much vpon the gold of India, nor that which the ants cast vp out of the ground, or the grifons gather in Scythia. And verily the gold here with vs commeth naturally in three sorts; to wit, among the sands of some great riuers, like as *Tagus* in Spaine, the *Po* in Italy, *Hebrus* in Thrace, *Pactolus* in Asia, and the Indian *Ganges* do yeeld it: neither is there any gold more fine and perfecte, as being thoroughly polished by that rubbing and attrition which it meets withall, in the course and stream of the water. Another manner there is to come by gold, namely, by digging it out of pits which are sunk of purpose for it, or els to light vpon it within the caues and breaches happening by the falls of mountains vndermined or cut through. And my meaning is to discourse of the one way as well as the other, of searching for gold.

To begin then with those who seek for this mettall: first aboue all they hit vpon a vaine of earth called *Segullum*, and this is it that giueth them the first light and shew that gold is there to be had. This they take vp: the bed and couch wherein it lieth: the grauell likewise & the sand about it they wash, obseruing diligently that which seeth in the bottome; for by it they haue a good guesse and aim that directeth them to gold, whether it lie deep or shallow. And by this coniecture, otherwhiles their hap is so good, as to find that which they desire, aloft, euen ebbe vnder the vprmost coat of the earth: but I must needs say, a rare felicity is this: & yet of late daies during the Empire of *Nero*, there was found in *Dalmatia* a vaine of gold ore within one spades griffe in the first turfe of the ground, which yeelded euery day the weight of fifty pound. This manner of earth, if it be found also vnder a vaine of gold, they call *Alutatio*. Moreover, this is to be nored, That ordinarily the dry and barren mountains in Spaine which beare and bring forth nothing else, are forced (as it were) by Nature to furnish the world with this treasure, and doe yeeld mines of gold. As for that gold ore which is digged forth of pits, some call it in Latine *Canalitium*, others *Canaliense*. And verily this is found sticking to the grit and vprmost crust of hard rocks of marble; not after the manner of drops or sparkes glittering in orient Saphire, or the

The Thebaick marble, and in many other pretious stones, which are marked here and there with specks of gold: but this ore or mettall doth clasp and embrace whole pieces of marble & such like, found in rocks. And commonly these canals (as I may so say of gold ore) follow the veins of such marble and stone in the quarry, diuiding and spreading as they do here and there: whereupon the gold tooke the foresaid name of *Canalitium*: they wander also along the sides of the pits as they are digged, so that the earth had need to be borne vp and supported with posts and pillars for the getting of it, lest by hollow vndermining it fall vpon the pioners. This mine or vein of gold ore when it is once digged vp and landed aboue ground, the manner is to bray and stamp, to wash, buin, and melt, yea and otherwhiles to grind into powder. As for that which (as they pun thus and beat in mortars) is knocked from it, they call * *Apilascus*: but the mettall which sweateth out and commeth forth by the violent heate of the furnace where the foresayd ore is melted, they name *Argentum*, & *Siluer*. The grosse substance cast vp from the pot or vessel, and swimming aloft (whether it be the drosse comming of gold thus tried, or any other metall) is named *Scoria*. Howbeit, this drosse that gold doth yeeld from it in the trying, is set ouer the fire again to take a new melting, & is stamped in maner aforesaid. As for the pans or vessels wherein gold is thus tried and refined, they be made of a certain earth named *Talconium*: and the same is white like vnto a kinde of potters clay. For surely there is no other earth or matter whatsoeuer will abide either the heate of the fire vnderneath, plied continually with the bellows, or the matter within it when it is melted. And thus much of the two first waies of finding out gold.

The third manner of searching for this mettall is so painfull and toilesome, that it surpasseth the wonderfull works of the * *Geants* in old time. For necessary it is in this enterprise & busines, to vndermine a great way by candlelight, & to make hollow vaults vnder the mountains. In which labor the pioners work by turns successiually, after the maner of the reliefe in a set watch, keeping euery man his houres in iust measure: and in many a moneths space they neuer see the Sun or day light. This kind of work and mines thus made they call *Arrugia*, wherein it falleth out many times that the earth aboue head chinketh, and all at once without giuing any warning ferleth and falleth, so as the poore pioners are ouerwhelmed & buried quick: inso much as considering these perils, it seemes that those who diue vnder the water into the bottom of the Leuant seas for to get pearls, hazard themselves nothing so much as these pioners: a strange thing, that by our rashnesse and folly wee should make the earth so much more hurtfull to vs than the water. Wel then, to preuent as much as possibly may be these mischiefes and dangerous accidents, they vnderprop the hills, and leaue pillars and arches as they go, set thick one by another to support the same. And yet say they worke safe enough, and be not in jeopardy of their liues by the fall of the earth, yet there be other difficulties that impeach their work: for otherwhiles they meet with rocks of flint and rags, as wel in vndermining forward, as in sinking pits downe-right; which they are driuen to pierce and cleaue through with fire and vinegar. But for that the vapor and smoke that ariseth from thence, by the means, may stifle and choke them within those narrow pits and mines, they are forced to giue ouer such fire-work, and betake themselves to great mattocks and pickaxes, yea and to other engines of iron, weighing 150 pounds apiece, wherewith they hew such rocks in pieces, and so sinke deeper, or make way before them. The earth and stones which with so much ado they haue thus loosed, they are faine to cary from vnder their feet in scuttles and baskets vpon their shoulders, which passe from hand to hand euer more to the next fellow. Thus they moile in the dark both day and night in these infernal dungeons, and none of them see the light of the day, but those that are last and next vnto the pits mouth or entry of the caue. If the flint or rock that they work into seem to run in a long grain, it will cleaue in length, and come away by the sides in broad flakes, and therefore the pioners with ease make way, trenching and cutting round about it. Howbeit, be the rock as ragged as it will, they count not that their hardest work: for there is a certaine earth resembling a kinde of rough clay which they call white Lome, and the same intermingled with gritty sand so hard baked together, that there is no dealing with it; it so scorneth and checketh all their ordinary tooles and labour about it, that it seemeth impenetrable. What doe the poore labourers then? They set vpon it lustily with iron wedges, they lay on lode vncessantly with mighty beetles; and verily they thinke that there is nothing in the world harder than this labour, vnlesse it bee this vnassatiab hunger after gold, which surpasseth all the hardnesse and difficulty that is. Wel, when

* *Quasi ad pilas eorum*.

* Who were said to reare one mountain vpon the head of another.

when the work is brought to an end within the ground, & that they haue vndermined & hollowed the ground as far as they think good, down they go with their arch-work aboue said, which they builded as they went: they begin first at those props which are farthest off, cutting the heads of the stanchions still as they return backward to the entrance of the work. Which done, the sentinel only, which of purpose keeps good watch without upon the top of the same mountain that is thus vndermined, perceiues the earth when it begins to chink and cleaue, menacing by that token a ruin thereof anon. Whereupon presently he giues a signe either by a loud cry, or some great knock, that the pioners vnderneath may haue warning thereby to get them speedily out of the mines, and runneth himselfe apacedown from the hill as fast as his legs will giue him leaue. Then all at once on a sudden the mountain cleaueth in sunder, and making a long chink, falls downe with such a noise and crack, as is beyond the conceit of mans vnderstanding, with so mighty a puff and blast of wind besides, as it is incredible. Whereat these miners & pioners are nothing troubled, but as if they had done some doughty deed, and achieved a noble victorie, they stand with ioy to behold the ruin of Natures workes which they haue thus forced. And when they haue all don yet are they not sure of gold, neither knew they all the whiles that they labored and vndermined, that there was any at all within the hill: the hope only that they conceived of the thing which they so greatly desired, was a sufficient motiue to induce them to enterprise and endure so great dangers, yea & to go through withall and see an end. And yet I cannot wel say that here is all; for there is another labor behind, as painfull euery way as the other, and withall of greater cost and charges than the rest, namely, to wash the breach of this mountaine (that is thus clouen, rent, and laid open) with a currant: for which purpose they are driuen many times to seek for water a hundred miles off, from the crefts of some other hills, and to bring the same in a continued channel and stream all the way along vnto it. These Riuer or furrows thus deuised and conueyed, the Latines expresse by the name of * Corrug, a word as I take it deriued à *Corruendo*, i. of drawing many springs and rils together into one head & channel. And herein consisteth a new piece of worke as laborious as any that belongs to mines. For the leuel of the ground must be so taken aforehand, that the water may haue the due descent & currant when it is to run: and therefore it ought to be drawn from the sources springing out of the highest mountains; in which conueiance regard would be had as well of the vallies as the rising of the ground between, which requireth otherwhiles, that the waters be commanded by canels and pipes to ascend, that the carriage thereof be not interrupted, but one piece of the work answer to another. Otherwhiles it falleth out, that they meet with hard rockes and crags by the way, which do impeach the course of the water; and those are hewed through, and forced by strength of mans hand to make room for the hollow troughs of wood to lie in, that carrie the foresaid water. But a strange sight it is to see the fellow that hath the cutting of these rockes, how he hangeth by cables and ropes between heauen and earth; a man that beheld him afar off would say it were some flying spirit or winged diuell of the aire. These that thus hang for the most part take the leuel forward, and set out by lines the way by which they would haue the water to passe; for no treading out is there of the ground, nor so much as a place for a mans foot to rest vpon. Thus you see what ado there is. And these good fellowes whiles they bee aloft, * search with the hands and pluck forth the earth before them, to see whether it be firme and fast, able to beare the trunks or troughs for the water; or otherwise loose and brittle, which defect of the earth they call * Vrium: for the auoiding whereof the fountainers feare neither rocks nor stones to make passage for their pipes or trunks aforesaid. Now when they haue thus brought the water to the edge & brow of the hills where these mines of gold should be, & from whence as from an head there is to be a fall thereof to serue their purpose, they dig certaine square pooles to receiue the water, 200 foot euery way, and the same ten foot deep: in which they leaue fise seuerall sluices or passages for the deliuerie of water into the mines, and those commonly three foot square. When the said pools stand full, as high as their banks, they draw vp the floud-gates: and no sooner are the stopples driuen and shaken out, but the water gusheth forth amaine with such a force, and carrieth so violent a streame therewith, that it rolleth downe with it any stones, be they neuer so big, lying in the way. And yet are we not come to an end of the toile, for there remaineth a new piece of work to do in the plaine beneath. Certain hollow ditches are to bee digged for to receiue the fall of the water both from the pooles that are aboue, and the mines also. These trenches the Greekes tearme Agogæ, as a man would say,

Conduits,

Conduits, and those are to be pased by degrees one vnder another. Besides, there is a kinde of shrub or bush, named Vlex, like to Rosemarie, but that it is more rough and prickely, and the same is there planted because it is apt to catch and hold whatsoeuer pieces of gold do passe beside. The sides moreover of these canals or trenches, are kept in with planks and boards, and the same borne vpon arches pendant through steep places, that by this means the canale may haue passage and void away at length out of the land into the sea.

Lowhat a worke it is to search out and meet with gold! and verily by this means Spaine is grown mightily in wealth, and full of treasure. In the former work also of sinking pits for gold, an infinit deale of labour there is to lade out the water that riseth vpon the workemen, for feare it choke vp the pits; for to prevent which inconuenience, they deriue it by other drains. As touching the gold gotten by cleauing and opening mountains (which kind of work I called Arturgia) it needeth no trying by the bloome-smithie, for fine it is naturally & pure of it selfe: and found there be whole lumps and masses of this kind, and in this manner. In pits likewise ye shall haue such pieces, weying otherwhiles ten pounds and more. These grosse and massie pieces of gold, the Spaniards call Palacæ or Palacranæ: but if they be but small, they haue a pretty name for them, and that is Baluces. But to come again to the shrub or plant Vlex, whereof I spake before, after it is once dried, they burn it, and the ashes that come thereof, they wash ouer turfs of Greene grasse, that the substance of gold may rest and settle therupon. Some writers haue reported, that the countries of Asturia, Gallæcia, and Lusitania, were wont to yeeld euery yere 20000 pound weight of good gold gotten after this sort: yet so, as they all doe attribute the greatest proportion thereof to Asturia: and there is not any part of the world comparable to it either for so great fertility of mines, or so long continuance, holding out as they do so many ages. As for Italy, our ancient Senat in old time thought good to haue it spared, and they made an Act, forbidding expressly to break any ground for mines: otherwise there is not, I dare be bold to say, a land more plentiful in gold and other mettals. And here there cometh to my remembrance an Act of the Censors extant vpon record, as touching the gold mine of Ictimulum, a towne in the territory or countrey of Vercelles, which Act contained an inhibition, that the publicanes who fermed that mine of the city, should not keepe aboue fise thousand pioners together at worke there.

Moreouer, there is one deuise to make artificiall gold, to wit, of Orpiment, a minerall digged out of the ground in Syria, where it lyeth very ebbe, and the painters vse it much: in colour it resembleth gold, but brittle it is in substance like as glasse stones. And verily Caligula the Emperour (a couetous prince and greedy of gold) was in great hope to extract gold out of this minerall, and thereupon caused a huge masse thereof to bee boiled, melted, and calcined: and in truth he made therof most excellent gold, but in so smal a quantity, that it would not quit for the cost & pains about it; in so much, as he lost by the bargain: yet his auarice was such, as he would needs make the experiment, notwithstanding that orpiment it selfe was worth fourteene deniers the pound: but he sped so bad, that no man afterwards would go about to try the like conclusion.

Gold vntried is of a diuers touch; & generally there is not any but it hath siluer in it more or lesse: for in some places, the gold ore hath a tenth part in weight of siluer, in others a ninth, and there is again that hath a mixture of the eight part. In one gold mine within France, called Albicarense, there is found in gold the 36 part of siluer, and no more: such metall is not elswhere found to my knowledge, and therefore it passeth all other whatsoever.

There is a base kind of pale and whitish gold, which hath in it a fift part of siluer: and wherefoeuer this is found, they call it Electrum. Such metall lieth commonly in trenches and pits minerall, and namely with that gold which I called before Canaliense. Moreouer, there is an artificiall Electrum made, namely, by intermingling gold with siluer according to the naturall mixture, but if it exceed that proportion of one part to fise, it wil not abide the hammer and the anuill. This white gold also hath bin of great account, time out of mind, as may appeare by the testimony of the Poet Homer, who writeth, that the pallace of prince Menelaus glittered with gold, electrum, siluer, and yorie. At Lindos (a city within the Island of the Rhodians) there is the temple of Minerva, wherein Lady Helena did dedicate vnto that goddesse a cup made of Electrum: and as the story saith moreover, it was framed and wrought iust to the proportion & bignesse of one of her own paps. This property hath Electrum naturally, To shine by candle-light more cleare and bright than siluer. This singularitie and proper vertue it hath besides (if it

Sf

bee

* or rather Corrug.

* Minus tra-
punctur ad
emem
* or rather
A. sum, Cr. 2.
ap. 10.

be naturall) to discover and shew any poison: for be there poison in a cup of this mettall, a man shal see therein certain semicircles resembling rainbows, & perceiue besides the liquor to keep a hissing and sparkling noise as the fire doth; which 2 signs do certainly giue warning of poison.

As touching statues of gold: it is said, that the first image that euer was knowne to be solid and massie, was that of the goddesse *Diana* surnamed *Anaitis*, which stood within a temple dedicated to her, which in my *Cosmography* I haue signified vnder that name, and this was before any brassen statue of that making. This temple in those parts was accounted in regard of the diuine power of this goddesse, most holy and sacred; and such a kind of Image they call *Holophyraton*. Howbeit, as religious as the church was, *Antonie* in his voiage into *Parthia*, spoiled it, and carried away the said Image. And here I cannot forget to put downe a pretty speech, which (by report) an old gentleman and souldier of *Bononie* deliuered to *Augustus Caesar*, at what time as he was entertained as a guest and supped with the said Emperour at his owne table: for beeing asked by *Augustus*, whether it was true, that the man who first violated this goddesse, died blind, lame, and bereaued of all his limbs? he answered, Yea sir, that it is; and that me thinks you should know best, for euen now a leg of his you haue at supper, and *all your wealth besides is come to you by that faccage.

* For *Augustus Caesar* defiled *Antonie*, & was mightily enriched by the spoile of him. And yet other writers say, that al Greece erected that image to honor him withall.

The first man that *caused his owne statue to be made of gold, and the same solid & massie, was *Gorgias Leontinus* the great Orator and Rhetorician, which (to immortalize his owne name) he set vp in the temple at *Delphos*; and this was about the 70 *Olympias*: whereby we may see what wealth and gain was gotten in those daies by teaching Oratory and the Art of Rhetorick.

But to come at length vnto the medicinable vertues of gold: certes, diuers waies effectually it is in the cure of many diseases: for first of all, foueraign it is for green wounds, if it be outwardly applied; and if yong children weare it about them, lesse harme shal they haue by any forcery, witchcraft, or enchantments, that be brought into the house, or practised where they are: howbeit, gold it selfe if it be carried ouer one, is thought to be mischieuous and hurtfull: for in that sort it doth harme also to hens that coue and sit, or cws that are great with lambe and ready to yeane. But what is the remedy to preuent this mischiefe? marry take the same gold that is thus brought in place to do a shrewd turn, wash it well, and with that water besprinkle them that you would cure. Moreover, gold may be torried once with cornes of salt taken to the triple weight thereof; and a second time with two parts of salt, and one of the stone which they call *Schistis*: by this manner of preparing, all the venomous and hurtfull quality that is therein, it doth transfuse into the other things that be calcined or burnt therewith (which must be done vpon an earthen vessell) and it selfe continueth pure and incorrupt still. Now the rest of the ashes separated from the gold, saued in an earthen pot, and incorporat with water into the forme of a liniment, healeth the foule tetar that appeareth in the face: it cureth the same disease also, if the face be rubbed with the said ashes and beane flour together, but then it must be afterwards washed off. These ashes thus prepared, cure the hollow vlcers called *fistuloes*, and also the haemorrhoids: but in case you put thereto the *floure of salnitre, it healeth corrupt and putrified vlcers, & such as stink again: the same being boiled in hony with *Nigella Romana*, doth gently loose the belly, if the naual be anointed therewith. To conclude, *M. Varro* saith, that gold wil cause werts to fall off.

* *Nitrispama*, or *nitron*, is a salt.

CHAP. V.

¶ Of *Borras*, and the six medicinable properties that it hath: the wonderfull Nature thereof in sodring one mettall with another, and in bringing all mettals to their perfection.

Chryfocolla, called otherwise *Borax*, or green earth, is found in those pits and mines that are digged for gold: and a humor it is at the first, running along the veine of gold, which as it thickneth and groweth muddy, congealeth at length by the extreame cold of winter to the hardnesse of a pumish stone. Howbeit, the best kind of *Borax* we haue known by experience to be ingendred in mines of brasse; and the next to it for goodnes, in those of siluer: otherwhiles also men meet withal in leaden mines, but the same is not so good as that which the gold mines doe yeeld. Moreover, there may be an artificiall *Borras* made in all the said mettall mines, but far inferior to that which is naturall; namely, by letting water gently to run among their veines all winter long vntill the month of Iune: the which water, in Iune & Iuly wil grow to be dry and

prooue

A prooue *Borras*; whereby a man may perceiue plainely, that *Borras* is nothing els but a putrified vein of mettall. But this Minerall, if it be of the own kind, differeth from this other which is made by art of man, especially in hardnesse, for much harder it is, and called the yellow *Borax*, or in Latine *Lutea*; and yet it may be brought to that colour by artificiall means, namely by dying with an herb called likewise **Lutea*: for of this nature it is, that it will take color & drinke it in, as well as linnen or woollen. But for to dresse and prepare it for the purpose, first they pun it in a mortar, then they let it passe through a fine sece; afterwards it is ground or beaten againe, & so it is serced a second time through a finer sece; whatsoeuer passeth not through, but remaineth behind, must be punned once more in a mortar, & so ground into a small powder: and euet as they haue reduced any into powder, they put it into sundry pots or cruses: then they let the same to lie enufused and soaked in vinegre, till the hardnes therein be wholly resolued: which done, to the mortar it goeth againe, where it must be thoroughly stamped for altogether, and so when it is well washed out of one trey or boll into another, they let it dry: after it is thus prepared they giue it a colour with the herb *Lutea* (before said) and alume de plume: and thus you see it must be painted and died first, before it selfe serue to paint or die withall. And herein it skillerth much how pliable & apt it is to receiue the said color, for vnlesse it haue willingly taken a deep tincture, they vse to put thereto *Schyrtanum* and *Turbystum*, for so they call two drugs which serue to make it take a color the better. This *Borax* thus died, our painters vse to call *Orobitis*: and two kinds they make therof; to wit, *Lutea*, i. the yellow, which they keep for the powder or colour **Lomuntum*; the other liquid, namely when the said grains or pellets be resolued into a kind of moisture, like drops of sweat. This *Borax* of both sorts, is made in the Isle *Cypros*. The principall and best of all other comes from *Armenia*: in a second degree, from *Macedonia*: but the greatest quantity therof is in *Spain*. The excellent *Borax* is known by this mark especially, If it resemble perfectly in colour the deep and full green that is in the blade of corn wel liking. In our time, & namely in the daies of the Emperour *Nero*, the floore of the grand cirque or shew-place at *Rome*, was seen pauced all ouer with greene *Boras*, at what time as he exhibited goodly fights and pastimes to the people; and namely, when he meant himselfe to run a race with chariots, and took pleasure to driue his horses vpon a ground futable to the colour of the cloth or luerie that he wore himself at that time: and in truth, a world of workemen he brought thither to lay the said pauing. Al the sorts of *Boras* may be reduced into three distinct kinds: to wit, the rough, valued at seuen denarij a pound; the meane, which is worth thre; and the poudred *Boras*, called also the grasse-green *Borax*, which costeth not about three deniers the pound. As for the sandie or poudred *Boras*, the painters before they vse it, lay the first ground vnderneath it, of *vitrioll* and **Parætanium*, and then the *Borax* aloft: for these things take it passing well, & besides giue a pleasant lustre to the color. This *Parætanium* (for that it is most fattie & vnctious by nature, & for the smoothnes besides most apt to sticke too and take hold) ought to be laid first, vpon which must follow a course of the *vitrioll* ouer it, for feare least the whitenes of the foresaid *Parætanium* do pall the greenesse of the *Borax*, which is to make the third coat. As for the *Borax* called *Lutea*, some thinke itooke that name of the herbe *Lutea*, which also, if it be mixed and tempered with azure or blew, maketh a greene, which many do lay and paint withall in stead of *Borax*; which as it is the cheapest greene of all other, so is it a most deceitfull colour.

Borax doth not onely serue painters, but is much vsed also by Physicians; and namely, to mundifie wounds and vlcers, if it be made into a salue with wax and oile: and dry as it is of it selfe in powder, it hath a desiccative qualitie, and doth conglutinat and sodder very well: being mixed with hony into an elecuarie, they giue it inwardly vnto those that haue the squinancie, and cannot draw their wind but sitting vpright, and so it prouoketh vomit. Moreover, it encreth into many collyries or eie-salues, especially to consume and discusse the cicatrices and filmes growing within the eie: it goeth also to the making of green plaisters, such as be applied either to mitigat paine, or to heale the skin. And verily this *Borax* not artificially died, thus employed in Physick, the Physicians call *Acefin*, and is not that which men name *Orobitis*, and which receiueeth a tincture from mans hand.

Furthermore, there is a *Borax* or *Chryfocolla*, that goldsmiths occupie especially about sodring their gold: & of this kind al the rest take the name also of *Chryfocolla*. This is altogether artificiall, and is made of *Cyprian Verdegri* or rust of brasse, the vrin of a yong lad, and salnitre, tempered all together & incorporat in a brassen mortar, stamped with a pestill of the same mettall.

S f a

* Some take it to be weld or yellows.

* *Lomuntum*. See the beginning of the next booke.

* For some were called *Prassina* that ran for the price, i. Greenkins.

* A kind of chalkie earth, or clay, growing neare the sea shore.

* Whereupon itooke the name *Chryfocolla*, i. gold, a glew, or solder.

call. Our countrymen in Latin call this Borax Santerna: with it they vse to sodder that gold e. G. specially which standeth much vpon siluer, and is therefore called Argentofum. This kind of gold may be known thus; namely, if it will look bright and cleare vpon the putting of Santerna to it: whereas contrariwise if it hold much vpon brasse (and such gold is named *Ærosum*) it will haue no lustre at all, but looke dim and dusky vpon the laying of Borax vpon it, and besides will hardly be soddered. But to sodder such gold, there is a proper glue or foder made, with an addition of gold and the seventh part of siluer to the rest abouenamed, and all the same stamped and vnited together. And since I am entred into the seat of sodding, it were very meet and conuenient to annex vnto this present discourse, all things els concerning it, that we may vnder one view behold the admirable works of Nature in this kind. The foder of gold then is Borax, which I haue shewed already. Iron is soddered with the stiffe potters clew Argilla. Brasse ore or Chalamine called Cadmia, serues to vnite and knit pieces of brasse together in masse. Alume is good to hold plates of brasse one to another. Rosin doth foder lead, and besides is the proper cement of marble: but black lead will joine well, by the means of the *white: and one piece of tin with another, with the helpe of oile. In like manner, tin will hold sure with a foder of brasse file-dust, and siluer, with tin. Both brasse or copper, & also yron ore, melt best with an yron made of Pine-wood; as also with the Papyr reed in Egypt: but contrariwise gold soonest melts with a fire of chaffe and huls. Quicklime will catch an heat and burne, if water be cast vpon it, and so doth the *Thracian stone: but the same oile doth quench. Fire is most of all extinguished and put out with vinegre, with birdlime, and the white of an egg. No kind of right earth will burn light or flame. Finally, charcole which hath beene once one fire, then quenched and afterwards set a burning againe, is of more force and giueth a greater heat, than that which commeth new from the earth.

* Some take this for Tin-glasse.

* Which some take for pit-cole, or sea-cole rather, such as commeth from Newcastle by sea: or rather a kind of yeast.

CHAP. VI.

¶ Of Siluer, Quick-siluer natural, Stibium, or Alabastrum. The dresse or refines of siluer, and lichearge of siluer.

IT followeth by good order to write in the next place, of siluer mines, from whence proceedeth the second rage that hath set men a madding: where first and formost this is to be noted, that there is but one means to find siluer, and that is in pits sunke of purpose for it: neither is there any shew at all of siluer to giue light thereof, and to put vs in hope of finding: no sparkes shining, like as there be in gold mines which direct vs to it. The earth that engendreth the veins of siluer, is in one place reddish, in another of a dead ash color. But this is a generall rule, that it is not possible to melt and trie our siluer ore, but either with lead, or the veine and ore of lead. This minerall or mettall they call *Galena, found for the most part neer to the veins and mines of siluer. Now by the means of fire, when these are melted together, part of the siluer ore sekerth downeward and turneth to be lead, the pure siluer floteth aloft, like as oile vpon water. In all our prouinces, yea and parts of the world to speake of, there be mines of siluer to be found: howbeit the fairest be in Spaine, and yeeld the finest and most beautifull siluer: and the same also like as gold, is engendred in a baraine soile otherwise and fruitlesse, and euen within mountains: look also where one vein is discovered, there is another alwaies found not farre off: which is a rule obserued not in mines of siluer only, but also in all others of what mettals soeuer; and hereupon it seemeth that the Greekes doe call them *Metalla. And verily, strange it is and wonderfull, that the mines of siluer in Spaine which were so long agoe begun by Anniball, should continue still as they do, and retaine the names of those Carthaginians who first found, discovered and brought them to light: of which, one named then Bebelo, & so called at this day, yeelded vnto Anniball daily 300 pound weight; which mine euen at that time had gone vnder the ground and hollowed the mountain a good mile and a halfe: and all that way the Aquitans at this day standing in water, lade the same vp, labouring night and day by the candle or lampe-light, euery man in his turne; and during the burning of a certaine measure of oile; in such wise as they diuert the water from thence, and make a good big riuer thereof, to passe and run another way. A veine of siluer which lieth but ebb within the ground, and is there discovered, the miners call Crudaria, as it were a raw vein. In old time those that digged for siluer, if they met once with allum, were wont to giue ouer their worke and seeke no farther: but of late daies it happened, that vnder alume there was found a veine of white brasse or laton, which fed mens hopes still, and

* or, Molybdena.

* quassus, as one after another.

A and cause them now to sink lower, and neuer rest so far as they can dig. And yet there is a damp or vapor breathing out of siluer mines, hurtfull to all liuing creatures, and to dogs especially. Moreouer, this point is well to be marked, that gold and siluer both, the softer that they be and tender, the better they are esteemed: and siluer being white as it is, most men maruell how it commeth to passe, that if one rule paper or any thing therewith, it will draw black lines & fully as it doth.

B Furthermore, within these veines and mines abouesaid, there is a certaine stone found which yeelds from it an humor continually, & the same continues alwaies liquid: men call it *Quick-siluer (howbeit being the bane and poison of all things whatsoever, it might be called Death-siluer well enough) so penetrant is this liquor, that there is no vessel in the world but it will eat and breake through it, piercing and passing on stil, consuming and wasting as it goes: it supports any thing that is cast into it, and will not suffer it to settle downward, but swim aloft, vnlesse it be gold only; that is the only thing which it loueth to draw vnto it and embrace: very proper it is therefore to refine gold; for if gold and it be put together into earthen pots, and after often shaking be poured out of one into another, it mightily purifies the gold & casts forth all the filthy excrements thereof; and when it hath rid away all the impurities and grosse refuse, it selfe ought then to be separated from the gold: for which purpose poured forth the one & the other ought to be, vpon certaine skinnes of leather well tewed and dressed vntill they be soft, through which the quick-siluer may passe: and then shall you see it stand in drops vpon the other side like sweat sent out by the pores of our skin, leauing the gold pure and fine behind it: and verily the affinitie betwixt gold & quick-siluer is so great, that if any vessels or pieces of brasse are to be gilded, rub the same ouer first with quick-siluer before the gold soile be laid on, it will hold the same most surely: may this one discommodity there is in it, that if the leaues of gold be either single or very thin, the whitenesse of the quick-siluer will appeare through, and make the gilding more pale and wan: wherefore our cunning goldsmiths who would make their Chapmen to pay for their plate as double gilt, when it is indeed but thin laid and single, and to picke their purses, set a rich and deep colour vpon their work for the time, by laying vnder the gold in stead of quick-siluer natural, the white of an egg, and then vpon it artificial quick-siluer named Hydragrym, whereof I purpose to write in place conuenient. And to say a truth, the right quick-siluer which is of the own kind, is not commonly found in great plenty.

D Ouer and besides, within the same mines and among the veines of siluer, there is found a minerall, which to speake properly is a stone concrete of a certain scum or some, white and shining, howbeit not transparent, which is called by some Stimmi, by others *Stibium, Alabastrum, or Labafon: and hereof there be two kinds, the male and the female; but the female Antimony or Stibium is the better esteemed: for the male is more rude, rough, and rugged, & yet for all that not so weighty, bright and radiant; besides that, it is more charged with sand: whereas the female contrariwise shineth and glittereth plentifully, being also brittle & tender, apt to cleaue easily into plates or flakes, and not to breake into lumps and gobbets.

Touching the vertues of Stibium pertinent vnto physick, astringent it is and refrigerant, but a principal and peculiar medicine to be employed about the eyes, for therupon it was that most men called it Platyophthalmon, for that being put into those ointments that are to beautifie the eyes of women, (named thereupon Calliblephara) it seemes to extend the compasse of the eyes, and make them appeare open, faire, and *large withall. Antimonie puluerised and incorporated with the powder of frankincense, by the means of gum withall, staith the flux of humors into the eyes, and healeth the fretting and exulcerations incident thereto: being otherwise a proper medicine to staunch the blood that gusheth or issueth from the braine. But for to stop the bleeding of any fresh wound, the powder of Antimony alone is thought to be more effectfull if the place be strewed withal: which also is a singular thing to heal the old bitings of dogs. It cureth moreouer any burn occasioned by fire, in case it be tempered in some conuenient fuet and wax, with Lichearge of siluer, and Ceruse or White lead, and so reduced into a salue. But for to prepare Antimonie aright, it ought to be well luted all ouer with a certaine kinde of paste made of Cow-dung, and then dugged and calcined in an ouen; which beeing done, to bee quenched with Womans milke, and then stamped and brayed very well in a mortar, putting thereto raine water also among, and euer and anon the troubled water ought to bee transfused into a vessell of brasse, and clarified therein together with Sal-nitre. As for that which settled in

* or Life-siluer

* We call it Antimonium.

* And therefore Jon called it *Antimonium* when he reckons vp the deuices that *Qu. Omphale* had to paine and trim her selfe.

* Which was counted a grace in old time, as may appeare by *Homer*, who giueth vnto *Qu. Iuno* the Epithet of *Boime*, (*id est*) broad eyed, as is a Cow or Heifer.

the bottome of the mortar, is held to be the drosse and dregs thereof, standing most vpon lead, G and is throwne away as good for nothing: but the pot or vessell whereinto the troubled water aforesaid was poured, after it is well couered and stopped with a linnen cloth, must be suffred to stand all night to take a setling; and the next morrow that which floteth aloft is to be poured out by little and little, and the rest of the liquor to be soaked forth with sponges, and separated from the Antimonie. Now, that which resteth in the bottom is taken to be the floure of Antimonie, and so called; which they lay forth in the Snn a drying, couered with a fine linnen cloth that it should not be ouermuch dried: which done, they beat this fine floure againe in a mortar, and so reduce it into trochiskes. But in this operation of preparing antimonie, about all things regard would be had in the burning thereof, that it be not ouermuch calcined, and so turne into lead. Some in the burning of antimonie vse not dung, as is before said, but rather lap the same about with some grease or tallow: others, after it is well beat and punned, streine it with water H through a threefold linnen cloth, & cast away the dregs remaining behind: but the liquor that passed through, they poure out of one vessell into another, and the residue alwaies they gather and saue, which they mix in the composition of plaisters and cie-salues, or collyries.

As touching the drosse or refuse in siluer, the Greeks call it Helcysma: the nature thereof is restraining & refrigeratiue: it entrencheth into plaistres like as lead ore doth (which is named Molybdæna, and whereof I intend to write in my treatise of lead) especially those that are made to heale, cicatrice, and skin. Also being injected by way of clistere with oile of myrtles, it cureth tinesmus and dysenteries. It is vsed much also in those lenitiue and vntuous plaistres named Lipatie, and serueth likewise for the excrecence of proud flesh in vlcers, & for those exulcerations which come of rubbing and fretting, or the running sore, and scalls in the head.

Within the metall mines aforesaid there is ingendred another mineral, known by the name of Spuma argenti, [i. the some of siluer] commonly called litharge, & three sorts there be found of it. The best litharge, of gold, which they call Chrystitis: the second, of siluer, named Argyritis: and a third of lead, which is Molybditis: and many times all these kinds to distill in color, are found in one and the same lump or puffed loaf of litharge. The best litharge is brought out of the region Attica: the next in goodnesse comes from Spain. Litharge of gold, named Chrystitis, is made of the very mine and vein of siluer; Argyritis, of siluer it selfe; and Molybditis, of the lead which is melted with the siluer: as wee may see at Puteoli, where great store of it is made, and of that place took the name Puteolana. All the sorts of them are made, after that the metall or matter appropriat vnto them, is thoroughly melted and tried; for it runneth downe from K the vpper pan into that vnderneath, out of which it is taken vp with iron broches, and to the end that it might be of a small weight, some wind it about the broch in the very flame of the furnace; and as it may appeare by the very * name, it is no other thing but the scum of the ore or metall boiling and melting ouer the furnace: from drosse it differeth as much as scum or froth about, may from dregges or lees beneath: and as the one is an excrement cast vp from a matter whiles it is purging it selfe, so the other is the refuse or grounds thereof after it is purged and settled. Howbeit many there bee who make but two kindes of this some or litharge; the one

* or rather,
Pntomene

* Spuma argenti,
* or rather,
Steevolis,

* Rumpuntur.

* Steresitis, as it were solid and massiue; the other * Peumene, as one would say, puffed vp and full of wind. As for the third named Molybdæna, they reckon on as a thing by it selfe, to be treated of in the discourse or chapter of lead. Now the litharge aforesaid ought for the vse that it is employed about, for to be prepared in this manner: first the lumps aforesaid are to be broken into small pieces as big as Hasel nuts, and set ouer the fire againe: thus when it is once red hot by the blast of bellows, to the end that the coles and cinders might be separated one from another, there is wine or vinegar cast vpon it, both to wash, & also withall to quench the same. Now if it be Argyritis, to the end it may look the whiter, they vse to break it to the bignes of beans, and give order to seeth it in water within an earthen pot, putting thereto wheat and barley lapped within pieces of new linnen cloth, and suffer them to boil therewith till they * burst: which done, for six dayes together they put it in mortars, washing it thrice euery day in cold water, and in the end with hot, and so at length put to euery pound of the said Litharge, the weight of one Obolus of Sal-gem. The last day of all they put it vp into a pot or vessell of lead. Some there be who seeth it with blanched beans and husked barley, and after that dry it in the sun: others think it better to seeth it with beans and white wool, vntill such time as it colour the wooll no more black: then they put thereto Sal-gem, changing oftsoones the water, and dry it for the space of forty

A forty daies together in the hottest season of the Summer. There be again who think it best to seeth it in water within a swines belly, and when they haue taken it forth, rub it wel with sal-nitre, and pun it in mortars, as before, with salt. Ye shall haue them that neuer bestow seething of it, but only beat it with salt, and then put water thereto and wash it. Well, thus prepared as is before said, it serueth for collyries and cie-salues, in a liniment also, to take away the foule cicatrices or scars, the pimples and specks likewise that mar the beauty of women, yea & our dames with the haire of their head withall, to make it clean and pure. And in very truth, Litharge is of power to dry, mollifie, coole, and attemper; to cleanse also, to incarnate vlcers, and to assuage or mitigate any tumors. Being reduced into the vnguents or plaisters aforesaid, and namely with an addition of rue, myrtles, and vineger, it is singular for S. *Anthonyes* fire. Semblably, being incorporated with oile of myrtles and wax into a cerot, it healeth kibed heeles.

CHAP. VII.

¶ Of Vermilion; and of what estimation it was among the old Romans: the first inuention thereof. Of Cinnabaris, the vse thereof in Pictures and in Physicke. The sundry sorts of Minium or Vermilion: and how it is to be ordered to serue painters.

C T Here is found also in siluer mines a mineral called Minium, i. Vermilion, which is a colour at this day of great price and estimation, like as it was in old times: for the antient Romans made exceeding great account of it, not only for pictures, but also for diuers sacred & holy vses. And verily *Verrius* alledgeth and rehearseth many authors, whose credit ought not to be disproued, who affirm, That the maner was in times past to paint the very face of *Iupiters* image on high and festiual daies with Vermilion: as also, that the valiant captains who rode in triumphant maner into Rome, had in former times their bodies * coloured all ouer therewith: after which manner (they say) noble *Camillus* entered the city in triumph. And euen to this day, according to that antient and religious custom, ordinary it is, to colour all the vnguents that are vsed in a festiual supper at a solemne triumph, with Vermilion. And no one thing doe the Censors D giue charge and order for to be done, at their entrance into office, before the painting of *Iupiters* visage with Minium. The cause and motiue that should induce our ancestors to this ceremony I maruel much at, and canot imagin what it should be. True it is and well known, that in these daies the *Æthiopians* in generall set much store by this colour, and haue it in great request, in so much as not onely the Princes and great Lords of those countries haue their bodies stained throughout therewith, but also the images of their gods are painted with no other colour: in which regard I am moued to discourse more curiously and at large of all particulars that may concerne it.

Theophrastus saith, that 90 years before *Praxibulus* was established chiefe ruler of the Athenians (which falls out iust vpon the 249 yere after the foundation of our city of Rome) *Callias* the Athenian was the first that deuised the vse of Vermilion, and brought the liuely colour thereof into name: for, finding a kinde of red earth or sandy grit in the mines of siluer, and hoping that by circulation there might be gold extracted out of it, he tried what he could do by fire, and so by that means brought it vnto that fresh and pleasant hue that it hath: which was the first original of Vermilion. Hee saith moreover, That euen in those daies there was found Minium in Spain, but the same was hard and full of gritty sand. Likewise among the Colchi, in a certaine rock inaccessible; by reason whereof the people of the country were constrained by shooting at it, to shake and drue it down: howbeit the same was but a bastard Minium. But the best simply (saith he) was gotten in the territorie of the Cilbians, somewhat higher in the country than *Ephesus*: in sum, That the said Minium or Vermilion is a certaine sandy earth of a deepe scarlet colour, which was prepared in this order: first they pun and beat it into pouder, and then washed it being thus puluerified. Afterwards, that which settled in the bottom they washed a second time. In which artificial handling of Minium this difference there is, that some make perfect Vermilion of it with the first washing: others thinke the Vermilion of that making to be too pale and weake in colour, and therefore hold that of the second washing to be best. And verily I won-

* To shew the bloody battels they had fought, and what carnage of their Enemies they had made: for with out much effusion and drawing of their blood they might not triumph.

I wonder not that this colour was so highly esteemed: for euen before time during the state of Troy, the red earth called Rubrica was in great request, as appeareth by the testimony of *Homer*, who being otherwise spary enough in speaking of pictures & colours, yet commends the ships * painted therewith. The Greeks call our Minium by the name of *Miltos*, and yet some terme it Cinnabari: and hereof arose the error occasioned by the Indian name Cinnabari. For so the Indians call the bloody substance of a dragon, crushed and squeezed with the weight of the Elephants lying vpon them ready to die, to wit, when the said dragons are full with sucking out the Elephants blood before: and now their owne and it are mingled together, according as I haue shewed before in the story of those beasts. And verily there is not a color besides, which expresseth the lively colour of blood in pictures so properly as Minium. As for that other Cinnabaris of India, it is most wholsom to be put into antidotes, preseruatiues, and countrepoisons, yea II and other souerain medicines to be taken inwardly. But our physicians (beleeue me) for that by an error Minium or vermilion is called Cinnabaris, vie in stead of Sanguis draconis, the said Minium, which in very truth is no better than a meere poison, as I will shew anon. Wel, in old time they vsed to draw those pictures and pourtrails which consist of one single colour, and be called Monochromata, with this colour Cinnabaris. They painted also with the Minium of Ephesus, but they gaue it ouer in proceffe of time, because such colors were so costly, & required such pains ere they were prepared and made perfect. Besides, both the one and the other were thought to be ouer-quick and stinging in hand; and therefore they betook themselves to the red earth Rubrica and Sinopis, of which colours I will speak more in their proper places. But to returne again to Cinnabaris or Sangdragon, it is sophisticated and corrupted either with Goats blood, or else with the fruit of Seruoises punned. But the true Cinnabaris or Sangdragon is worth fifty Sesterces by the pound. As for Minium or Vermilion aforesaid, *K. Iuba* saith, that it groweth plentifully also in Carmania. And *Hermogenes* affirmeth, that *Aethiopia* likewise is not without good store of it. But from neither of those two countries is it brought vnto vs, nor (to say a truth) out of any other place but Spain. The best and most excellent is that which comes out of the territory of Sisapone in the Realm of Granada or Boetica a part of Spain, euen from a Mine of Vermilion there, which payeth a great custome, and yeelds much reuenue to the people of Rome: and there is nothing looked to more straightly for feare of fraud and imposture; for lawfull it is not there to dresse and refine it, but vncocted and crude is it brought to Rome in the masse as it lay within the vein, sealed by the sworn masters of the mine, which yeelds one in a yeare with another 10000 pound weight or much thereabout. At Rome it is washed, and a price there is set vpon it by an expresse Act, namely, That it should not be sold aboue seuentie deniers the pound. But many wayes is it sophisticated, whereby the societie and fellowship of the Publicanes, who had the ordering of it at Rome, robbed the Commonweale, and gained themselves. For a second kind there is of Minium, found almost in euerie mine of siluer & lead, the which is made of a certain stone intermingled in the veins of those mettals after the same is burnt; and not of that red stone which yeeldeth forth the humor that I named before Quick-siluer: for this stone may it selfe by boiling be brought to siluer, but of other red pieces of earth found together with the said true Vermilion, which are knowne to be barraine and void of the right Vermilion, onely by the leaden hue which they haue: for vnlesse it be in the furnace they neuer wax red, and then being fully burnt and calcined, they are beaten to poulder. This is that Minium of a second sort, and much inferiour vnto those naturall pouders and sands of the true Minium, notwithstanding very few there bee that know it. Well, this is that Minium wherewith the true Vermilion is sophisticated in the Worke-houses and shops of those Publicanes, whose Companie and Fellowship had the ordering of it; like as it is corrupted also with Scyricum. But how this colour Scyricum is made I will in due place write hereafter. Certes our painters, to giue the better lustre vnto Minium, yea and to saue charges, haue deuised to lay the first ground vnder it of this Scyricum. Besides this, they haue another cast to gain (or steale rather) by Minium; for by reason that it sticketh to their pensils euer and anon, they wash it off when they be full: this fetleth down to the bottom of the water, where it remaines, and the painters take it for their auailles; but they were as good pick their masters purse who setteth them aworke. But if a man would know the true and sincere Vermilion indeed, it ought to haue the rich and fresh colour of skarlet. As for the brightnesse that is in the second sort, if a wall bee painted therewith, the naturall moisture and dankenesse that commeth from thence will abate the

* Such are called by *Homer*, *μυλτινός*.

A the lustre soon. And yet this Minium is taken to be but a kind of rust in mettals, either siluer or lead, as they lie in the mines. Moreover, the mineriall Vermilion found naturally in the foresaid Minium mines of Sisapona, haue no siluer mixed therewith, boyle and trie it in the fire as much as you will. Also the way to find true Minium from false, is by the means of gold: for touch the sophisticated Minium with a piece of gold red hot, it will wax blacke, whereas the true Minium keepeth colour still. [Where by the way note, That I read it may be falsified with Quicklime:] And after the same maner, if there be no gold at hand to trie it by, you shal soon see the prooffe and find the falsehood by a plate of yron red hot, and vsed accordingly. Furthermore, this hath bene obserued, That the shining beams either of Sun or Moone, do much hurt to the lustre of Vermillion, or any thing painted therewith. But what meanes to preuent this inconuenience? B Euen to vernish the wall after the colour is dried vpon it in this manner: Take white, Punicke wax, melt it with oyle, and while it is hot, wash the said painting all ouer with pensils, or fine brushe of bristles, wet in the said vernish. But when this vernish is laid on, it must be well chafed & heat again with red hot coales made of Gall-nuts held close to it, that the wall may sweat and frie again: which done, it ought afterwards to be rubbed ouer well with cerecloths, and last of all, with cleane linnen cloths, that it may shine again and be slicke as statues of marble be. Moreover, the workemen that are employed in their shops about the making of Vermillion, doe bind vnto their faces in manner of Maskes, large bladders, that they may take and deliuer their wind at libertie, and yet not be in danger of drawing in with their breath that pernicious and deadly poulder, which is no better than poyson: yet so, as they may see out of the said C masks neuertheless.

To conclude, Vermillion is vsed much in limming the titles and inscriptions of roles and books, it setteth forth the letters also, and maketh them more faire and beautifull, which are written in tables ouer sepulchres, be they enriched otherwise either with gold or marble stone.

CHAP. VIII.

Of quicksiluer artificiall, called Hydragrym. Of gilding siluer. Of Touch-stones for to trie the diuerse kinds of siluer.

D So inuentiue is the wit of man, that there hath bene deuised in the world a means to make an artificiall Quicksiluer in stead of the true and naturall, and that out of the second kind of Minium which before I called Secundarium. I should ere while haue spoken thereof in the chapter of the right Quicksiluer, but deferred it I haue no further than to this present place. First therefore this is to be vnderstood, that made it is two manner of waies, sometimes of the Minium aforesaid punned with vinegre in morters, and with pestles all of brasse; otherwhiles it is drawn by fire for they put secundarie Vermilion in an earthen pot well luted all ouer with cley, vpon which is there set a pan of yron, & the same couered ouer the head with another pot, well cemented, vnder which earthen pot abouenamed, there ought to be a good fire made, & the same kept continually with blowing; and thus by circulation there wil appeare a dew or sweat in the vppermost vessel proceeding from the vapors resolved, which being wiped off, will in substance shew liquid as water and in color resemble siluer. The same liquor is easie to diuide into drops, and as apt again by the lubricitie thereof, to run into an humor. This quicksiluer being by the judgement of all men a rank poyson, I suppose, that al things reported of Minium as medicinalle, be dangerous remedies, vnlesse haply that by inunction of the head or belly, it staies all flux of blood; with this caution and charge notwithstanding, that it neither perce and enter into the inward noble parts, nor touch the wound: for otherwise my conceit is, that it ought not to be vsed. I see that now adaies siluer only, and in maner nothing els, is gilded by the means of this artificiall Quicksiluer: whereas gold soile should be laid also after the same maner vpon vessels, or any workmanship of brasse: but (as I haue before said) the deceit & fraud that is euery where in the world, which makes men so wittie as they be, hath deuised other means of gilding, and of those of lesse dispence & charge than with any Quicksiluer, according as I haue before declared. I cannot thus write as I do so much of gold and siluer, but me thinks I must of necessity speak of the stone which they call in Latin * *Cortica*, which in times past was not vsually found in any place but in the riuer Tmolus, as saith *Theophrastus*: but in these daies we find it euery where: some call it *Heraclius*, others *Lydius*. Now these stones all the sort of them are but small, not excee-

* The touch-stone.

exceeding foure inches in length, and two in bredth. That part or side which lies aboue toward G the Sunne when it is found, is thought better for touch, than the other which lieth to the earth. By meanes of these touchstones, our cunning and expert mine-masters, if they touch any ore of these mettals, which with a pickaxe or soile they haue gotten forth of the veine in the mine, will tell you by and by how much gold there is in it, how much siluer or brasse, and they will not misse a scruple: a wonderfull experiment and the same infallible.

As touching siluer, two degrees there be of it, different in goodnesse, which may be knowne and discerned in this maner: For lay a piece of siluer ore vpon a scilse, plate, or fire pan of yron red hot, if it continue white still, it is very good, if the same become reddish, go it may for good too in a lower degree; but in case it looke blacke, there is no goodnes at all in it. Howbeit, there is some deceit also in this triall and experiment: which may crosse a man in his iudgement: for let the said scilse or plate lie a time in a mans vrine, be the ore neuer so base that is said thereupon when it is burning red hot, it will seeme to take a white colour for the time, and deceiue him on that shall see it. To conclude, there is another pretty prooffe of siluer fine, if it be brought and burnished, and that is by breathing vpon it: for if the breath be seene thereupon presently as a sweate, and the same passe away incontinently as a cloud, it is a signe of perfect siluer.

CHAP. IX.

¶ Of mirrors or looking glasses. And of the Egyptian silver.

AN opinion it was somtime generally receiued and beleueed, That no plates might be driuen by the hammer, nor mirrors made, but of the best and purest siluer: And euen this experiment is falsified and corrupted by deceit. But surely a wonderful thing in Nature this is of these mirrors of siluer, that they should represent so perfectly the image of any thing that is before them, as they do which must needs be (as all men confesse) by the reuerberation of the aire from the solid body of the miroir, which being beaten backe againe from it, bringeth therewith the said image expressed therein. The same reuerberation is the cause that such looking glasses as by much vsage are polished and made subtile, doe in that sort gently driue backe the image represented within them, that it seemes infinitely big in proportion of the body it selfe: such difference there is in them, & so materiall it is, whether they repercuss and reject the aire, or receiue and entertaine it. Moreouer, there be drinking cups so framed and fashioned with a number of mirrors within, that if there do but one look within them, he shall imagine that he saw a multitude of people, euen as many images as there be mirrors. There are deuised looking glasses also, which will represent monstrous shapies; and such be those mirrors that are dedicated in the temple at Smyrna: but this comes by reason that the matter wherof they be made, is in that sort fashioned. For it skilleth much whether mirrors be hollow, either in manner of a drinking pot, or of a Threidian buckler: whether the middle part lie low and inward, or rise and beare out with a bellie: whether they be set crosse and ouerthwart, or stand bias, whether they hang with their heads bending backward, or bolt vpright: For according as the matter which receiueth the image, is disposed to this or that fashion, or set one way or other, so it turneth the shadowes back againe: for verily the said image represented in a miroir, is nothing els but the brightnesse and clearenesse of the matter which receiueth the same, returned and beaten backe againe. But to go through in this place with all things concerning such looking glasses, the best known in old time vnto our ancestors, came from Brindis, and those consisted of tin and brasse tempered together. But when siluer mirrors came in place, those went downe, and these were preferred before them. The first that made them of siluer, was *Praxiteles* in the daies of *Pompey* the great. Of late, men had this opinion of siluer mirrors, That they would represent an image more liuely and truly, in case their backe part were laid ouer with gold.

But to return againe to siluer, the Egyptians vse a deuise to paint it, to the end that they would drinke more deuoutly, seeing their god *Anubis* painted within their pots. And in truth they rest contented with painting their plate, and neuer graue or chase any pieces. This deuise is growne into such credit by the precedent receiued from thence, that the statues of siluer caried in a shew at triumphs, be nought set by, vnlesse they be also enamelled & painted black: & wonderfull it is how much more precious they are thought to be when the natie brightnes thereof, is hid and the light quite put out or blindfolded. The manner of making this black siluer, is thus: They

A They take of siluer and sulphur vif as much of the one as the other, of Cyprian brasse or latton plates (which brasse they call *Coronarium*) as thin as may be, a third part: these they mix together and melt them in an earthen pot wel luted all ouer with cley: and boile they must so long, vntill the lid of the pot doth rise vp and flie open of it selfe. Moreouer, siluer wil look black with the yolke of an egge roasted hard and well beaten with vineger and Tripoli.

To come now vnto those that counterfeit mony. *Antonius* whiles hee was one of the three vsurping Triumvirs, mixed yron with the Roman siluer denier. He tempered it also with the brassen coine, and so sent abroad false and counterfeit mony. Others there be that make money too light (namely, vnder the lawful proportion) which is, to coin and stamp for euery pound weight of siluer 84 deniers. This enormity grew to this passe, that *M. Gratidianus* published a law, by vertue whereof there was an act instituted and ordained for the prooffe and allowance of siluer deniers, what touch and what poise they should haue: by which act of his hee so pleased the Commons of Rome, that there was not a street throughout all the city, but they erected a siluer statue, pourtraied all whole in a gowne in the fauor and honour of *M. Gratidianus*. But strange it is, and a man would not think it, that this art and cunning deuised for the detecting of falshood and forgerie, is the only means to teach deceit and wickednesse, for many a man wil giue too too much for false mony: yea, and many siluer deniers for one counterfeit, well and cleanly made: to take forsooth a pattern thereby, and learne to deceiue others.

CHAP. V.

¶ Of excessive summes of money in mens hands. Who they were in old time that were thought richest. And when there began largesses at Rome, and mony to be scattered and cast abroad to the people.

IN old time men knew no number about 100000: and therefore at this day also in stead of a million we multiply the said number by ten, and say thus in Latine, *Decies centina millia*. A hundred thousand ten times told, and so forward, * repeating alwaies a hundred thousand to the numerall aduerbe, as the sums doth amount. Vsuries, interests, and coined money haue been the cause of these multiplications: and by that occasion also came debts to be called euen vnto this age, by the name of *As alienum*. And thereof arose the proud name of *Dinites*, i. Rich, for great monied men were so called. Yet take this withall, That the first man that euer was knowne by that syname * *Dines*, brought a shilling to nine pence in the end, proued Banquerout, & departedake a * voiage against them. And albeit by his inestimable wealth he vsurped the title & addition of *Optimus*, i. The best, in his time, yet (for me thinks it doth me good to prosecute stil, and inueigh against this insatiable desire of hauing more) we haue known many after him, & those otherwise of base condition, and no better than slaues newly enfranchised, to haue growne vnto greater wealth; and namely three at one time, to wit, during the Empire of *Claudius Caesar*; and those were *Pallas*, *Callistas*, and *Narcissus*, late bond slaues all to the said Emperor. But to let these men passe, as if they were lords still of worldly wealth: in that yeare wherein *C. Asinius Gallus* & *C. Marcus Censorinus* were Consuls of Rome, died *C. Caelius Claudius*, who signified by his last will and testament, bearing date the 6 day before the Calends of February, the yeare about writen, That albeit he had sustained exceeding great losses during the troubles of the ciuil war, yet he should leaue behind him at the houre of his death, of slaues belonging to his retinue foure thousand one hundred and sixteen; in oxen, three thousand and six hundred yoke; of other cattell 257000 head, and in ready coine, H. S. D C, i. threescore millions of sesterces Romane. And besides, he set out for defraying of his funerall charges, * eleuen thousand sesterces, and gaue order expressly, to be entered so sumptuously. But what of all this? Set case these and such like

* To witte twenty times, or a hundred times, a hundred thousand, &c.

* i. *Craffus*.

* In which expedition he was taken prisoner by *Syracus*, lieutenant general for the king of Parthia who strake off his head, and poured gold melted into his mouth to satisfie his hunger after it. * H. S. X. which if you read by the numerall aduerbe (vn. decies) amounts to the said sum a hundred times told.

men gathered together innumerable fums of mony, and an infinit masse of goods, yet they shall come nothing neare to the wealth of K. *Ptolomæus*, who according to the testimony of *M. Varro*, (at what time as *Pompey* the great warred about Iury) maintained 8000 horsemen in pay continually with his own priuat purse: kept an ordinary table within his court of a thousand persons, and those had every man his own cup of gold to drink out of, and at each course and change of meats that came in, new plate was serued vp still to the boord. These guests of his fared so highly, that a man would haue said they had bin franke-fed. But how far short was this mighty and sumptuous prince think ye (for I wil say no more now of kings) in comparison of one *Pythius* a Bithynian, who sent to *Darius* the king a Present of a Plane-tree, all entire of beaten gold, and withall, that famous gold Vine, so much renowned by all writers: feasted the whole army of that mighty monarch, and those were * 788000 men: promising ouer and aboue fise moneths pay for them all, and corne for so long to serue the whole campe, if of fise sons that he had of his owne, the king would spare him but one to beare him company in his old age, and not prest him for to serue in the wars. Certes, a man that heareth thus much of this *Pythius*, might compare him with that rich *Craesus* king of Lydia. But what folly and madnesse in the diuels name is this, to hunger and thirst so much in this life after that, which either is common to base slaues, and may fall vnto them, or els wherof kings themselues can find no end? And thus much of gathering good and heaping riches together.

Vide Andeum

To come now to the scattering thereof, I finde in the Chronicles, That in the yeare wherein *Sp. Posthumius*, and *Qu. Martins* were Consuls, they began at Rome to make largesses, and to sling money abroad to the common people. And at that time such plenty of coine therewas stirring at Rome, that the City bestowed by a generall contribution vpon *Lu. Scipio*, as much as bare out his charges in exhibiting the solemne games and plaies vnto the people. As for that purse which was made for the funerals of *Agrippa Menenius*, wherin every man put his sextant, the sixt part of an As, I take it to haue been no Largeesse, but a beneuolence to testifie how the people honoured *Agrippa*, and a supply of meere necessitie, considering how poore the man died.

CHAP. XI.

¶ Of the superfluitie and frugality both, of men in times past, touching plate and siluer vessels. Of beds and tables of siluer. Also when there were deuised chargers and platters of Siluer to be made of huge capacity beyond all measure.

THE world is giuen to so much inconstancy as touching siluer plate, that a wonder it is to see the nature of men how variable they be in the fashion and making of such vessel: for no workmanship wil please them long. One while we must haue our plate out of *Furnius* his shop; another while we will be furnished from *Clodius*: and againe in a new fit, none wil content vs but of *Gratius* his making (for our cupboords of plate & tables, forsooth, must beare the name of such and such Goldsmiths shops.) Moreouer, when the toy takes vs in the head, al our delight is in chased and embossed plate; or els so carued, engrauen, and deep cut in, as it is rough againe in the hand, wrought in imagery or floure-work, as if the painter had drawne them. And now a daies we are growne to this passe, that our dishes are set vpon the table borne vp with feet and supporters to sustaine the viands and meat therein, but in any wise their sides must be pared verry neere; for herein I may tell you lieth a great matter, and the more that the sides and edges hath lost by the file, the richer is the plate esteemed to be.

As touching the vessell seruing in the kitchen: did *Calvus* the noble Oratour complaine in his time that it was of siluer? Why, wee in these dayes doe more than so, for wee haue deuised that our coaches should bee all siluer, and these curiously wrought and engrauen. And within the remembrance of man, euen in this age, *Poppæa* the Emperesse, wife to *Nero* the Emperour, was knowne to cause her Ferrers ordinarily to shooc her coach-horses and other palfreys for her saddle (such especially as shee set store by, and counted more daintie than the rest) with cleane gold. Towhat excesse and prodigalitie is the world now grown to? *Scipio Africanus* the second of that name when hee dyed, left no more vnto his Heire in Siluer Plate and Coine than two and thirtie pound weight: and yet this worthie Knight, when hee rode in triumph for the conquest

A quest of the Carthaginians shewed in that solemne pompe, and brought into the chamber of Rome as much treasure as amounted to * foure thousand foure hundred and seuenaty pounds weight of siluer, a thousand times old. This was all the treasure in siluer that the whole state of Carthage was able to make in those daies; Carthage (I say) that great and proud city which pretended a title to the Empire of the world, and maintained the same against Rome: and yet see I in this age there is as much laid out in our cupboords of plate, and furniture of our tables. The same *Africanus* afterwards, vpon the winning and final ruine of Numantia, gaue among his souldiers in a triumph, 17000 pound weight of siluer: O braue souldiers, and worthy to noble a captain, who stood contented with such a reward. A brother of this *Scipio*, surnamed *Allobrogus*, was the first knowne to haue in plate, one thousand pound weight: but *Lucius Drusus*, whiles he was but Tribune or Prouost of the comminalty, had in siluer vessell as much as weighed eleuen thousand pounds. Now if I should tell you that the Romane Censors vpon a time disgraced, yea and degraded an antient captain and one who in his time had rode in triumph, only for that he had in plate fise pound weight, it would be taken in these daies for a meere tale and vaine fable: as also that *Catus Aelius* in his Consulship, was found sitting at dinner served with earthen vessell of potters worke, when the Embassadors of the *Ætolians* came vnto him: that he refused also siluer plate presented to him for the furniture of his boord, and to his dying day had neuer in siluer more than two drinking cups, which *Lucius Paulus* his wiues father bestowed vpon him after the defeiture of K. *Perseus*, in regard of his valiant seruice, wehold it now for no lesse than an vntruth and incredible. And here I call to minde a merry conceited speech that I haue read in the chronicles, of certain Carthaginian Embassadors, who said, that no men in the world had more good fellowship in their houses, and liued more friendly together, than the Romanes, for why? when they feasted one another (say they) the same * siluer plate went round about amongst them all from one to another without change. But howsoever this frugality whereof I speak may seeme strange and fabulous to the world wherein we liue, certes wee all know this to be true and no fable, that *Pompeius Paulinus* (the son of a Roman knight or man of armes borne at Arles) was not only banished out of the country and nation where his father was borne, but confined also to the marches of most sauage and barbarous people, and exposed to their cruelty, only for this, That he had in his campe (to the euil example of the army) as much siluer plate as weighed 12 pounds. But long ago it is since the fashion came vp at Rome, that our dames had their beds couered all ouer with siluer, yea, and some dining rooms with tables laid with the same: which inuention came first (as it is reported) from *Caruilius Pollio*, a gentleman or knight of Rome, who deuised to garnish his boords with siluer, not couering them full and whole throughout with plates thereof, nor after the manner of Deliacke workmanship, but onely by parcels, and according to the Punicke or Carthaginian fashion. The same *Pollio* made beds and tables of gold: but not long after, those siluer beds and boords came to the order of those in the Isle Delos. But all this sumptuositie was punished sufficiently and expiat by the ciuill warre of *Sylla*: for a little before those troubles, this excesse and these superfluities came vp: as also about the same time, men set to make great chargers & platters of siluer, weighing one hundred pound a peece; of which there were at Rome (as it is well knowne) when the said warre beganne, to the number of fise hundred and aboue: which was the cause that many a man fell into the danger of proseription and confiscation, for that their rich plate set their enemies teeth on water; who for the loue and desire thereof, practised by all cunning meanes their vtter vndoing. Certes our Historians heretofore, who attributed this cursed and vnhappie ciuill warre betwene *Sylla* and *Marius*, vnto such superfluities and vices of those times which reigned so rife, might be ashamed and blush to say so, for our age hath been more hardy, and hath proceeded farther without any such feare of punishment from aboue. No longer since than in the daies of *Claudius* the Emperour, *Drusillus* a slaue of his surnamed *Rotundus* (the Seneschol or Treasurer vnder him in high Spaine) had a siluer charger of fise hundred pound weight (for the working whereof, there was a forge framed beforehand of set purpose:) and the same was accompanied and attended with eight more of a smaller size, weighing 50 pound a peece. Now would I gladly know (if it might please you) how many of his fellowes (such slaues I meane as him selfe) there must be to carry the said vessell and serue it vp to the table: or what guests they mought bee who were to be served with such huge plate? *Cornelius Nepos* writeth, that before the victorie of the sayd *Sylla* who defeated *Marius*, two dining tables and no more there were throughout Rome, all of siluer.

T t

Fenestella

Fenestella saith, that in his time (and he died the last yere of the reigne of *Tiberius Caesar* the Emperor) men began at Rome to bestow siluer vpon their cupboords and side linary tables: & euen then also (by his saying) Tortoise worke came in request and was much vsed. Howbeit, somewhat before his daies, he writeth, that those cupboords were of wood, round and solid of one entire peece, and not much bigger than the tables whereupon men eat their meat: but when hee was a young boy, they were foure square, and of many peeces joyned together, and then they began to be couered ouer with thin boords or painels, either of maple or citron wood. Soone after, they fel to lay siluer plates vpon them at the corners only, and along the joints where the planks were fet together: but by the time that he was come to be a well grown yong man, they were at their drinking mazors or round-bottomed dishes like balances, whereupon they were called *Statera*: also at those platters, which in old time were named *Magides*. Howbeit, men rested not contented to haue furnished themselves with plenty of siluer in their plaine plate and about their houses, vnlesse the curious workmanship also thereof were more costly than the mettall and matter it selfe. But lest this superfluity should be imputed vnto vs in these daies, be it knowne, that such curiosity was crept into the world long ago: for *C. Gracchus* had in the furniture of his house, certain vessels of siluer called *Dolphins*, which cost him at the gold-smiths hand 5000 sesterces a pound: an exceeding price for the fashion and workmanship, considering *L. Crassus* the Orator had two pots artificially engrauen by the hand of *Menior* that cunning workman, the fashion and making whereof cost * 100 sesterces a pound: and yet he confessed and protested, that hee was abashed to vse them, and durst not for shame bring them abroad. Moreover, knowne it is, that he had in his cabinet pieces of plate, which to be bought and sold were worth every pound 6000 sesterces. Briefly, the conquest and reducing of Asia vnder our Empire, was the first occasion that brought into Italy such wastfull excesses: for *L. Scipio* shewed in triumph of siluer plate, intailed and ingrauen, 400 thousand and 50 pounds weight, besides vessels of gold amounting to the weight of 100 thousand pound: and this was in the yere from the foundation of Rome, 565. But the free * donation and bestowing of the said Asia vpon the city of Rome (which fell vnto the Romans by the death of *K. Attalus*, who in his last will and testament ordained them his full heires) did most hurt vnto our state: and this succession which our Antients injoyed by vertue of that gift, did greater damage to the integrity of manners, and brought more corruption into our city, than the former victory atchieued by force of armes: for from that time forward men grew to be shamelesse, and without regard of modesty every mans fingers itched to be tempering with the treasure of *K. Attalus*, and to buy the same at any price, sold in open port-sale to them that would giue most: which hapned in the 626 yere after the foundation of the city: for in 56 yerres (which was the meane space between the foresaid subduing of Asia and this feoffment of *K. Attalus*) our city was well nuzzled and trained not onely in the admiration of such puissant forrein kings and princes, but also in some affectionate loue to their wealth and riches. About which middle time between, & namely in the 608 yere, reckoning from the first founding of Rome, when Achaia was likewise brought vnder our obedience and subjection, this victory also was a mighty means to bring vs also out of al good order, and to set vs forward to imbrace superfluities and to ouerthrow al honesty and vertue: for now were brought in the stately statues and proud painted tables, that we should want no inticing delights, but that all the pride and pleasure of the world might be found at Rome. Finally, the ruin of Carthage, was the rising of superfluitie with vs, as if the Destinies had so appointed, that at one & the same time we should haue both wil to imbrace vice, & also power & liberty withal to perform sin: so that in regard of our times and the enormities thereof, we may iustifie, yea and honor any of our ancestors who seemed before to offend in this behalfe: for, as it is said, *C. Marius* after he had defeated the *Cimbrians*, contented himselfe to drink in a wooden godet and tankerd, after the example of father *Bacchus*: *C. Marius* I say, who of a good husbandman in the country about Arpinum, & of a common and ordinary fouldier, came to be a braue captaine and commander in the field.

CHAP. XII.

¶ Of Statues and Images of Siluer: of the workmanship in grauing Siluer, and of other things pertinent thereto.

Men commonly haue thought, that the first statues of siluer scene in Rome, were made in the honour of the Emperour *Augustus*, by way of courting and flatterie to winne his grace and

and fauour, as those times did require: but it is altogether vntrue, for before his daies, we finde that *Pompey* the Great when he rode in triumph, caused the siluer statue of *K. Pharnaces* (the first [of that name] that euer raigned in the realme of Pontus) to be carried in a solemne shew: like as the image also of *Mithridates* his father, besides chariots as well of gold as of siluer.

Moreover, it falleth out sometimes, that siluer is vsed in stead of gold also vpon some vrgent cause and iust occasion: as we may see by our proud & sumptuous dames, that are but commoners and artizans wiues, who are forced to make themselves carquans and such ornaments for their shooes, of siluer, because the rigour of the statute provided in that case, will not permit them to weare the same of gold. And I my selfe, as I remember, haue seen *Aurelius Fuscus* (a gentleman of Rome, who being put beside his place, and hauing lost the dignity of a man of armes, by reason of a notable calumniation framed against him, when as young gentlemen sit sons vsed to accompany him because he had the name of a braue souldier) weare his rings of siluer. But to what purpose do I collect these examples, seeing our soldiers make no reckoning of yvorie, but the hilts of these swords and the hasts of their daggers, bee garnished with siluer, damasked and ingrauen; their scabberds and sheaths bee set out with siluer chapes, and their sword girdles, hangers, and bawdricks, gingle again with thin plates of siluer. And do we not see how our yong boies are * kept in and restrained with siluer, during the time that they be vnder maies age? how our fine dames vse to wash and bath in siluer, diidaining and setting light before any other bathing vessels in the baines, in so much as the same mettall and matter which we are serued with at the table, is imployed also in shamefull and vnclenly vses. Oh that *Fabritius* were alive now again to behold these things! if hee saw our women bathing together with men in one and the same baine, and those pained (as it were) vnder foot with siluer so smooth and slipperie that they cannot hold their feet: *Fabritius* I say, who forbade expressly, that any warriours and Generall captains should haue in plate more than one drinking boll or goblet, and a saltcellar: if hee saw siluer (which was wont to be giuen in presents and rewards to braue men and valiant captains) thus to be melted and broken to serue for these purposes, what would he say? but What a world is this! we passe not for *Fabritius*, nay, we are ashamed of him and his frugality.

But to leaue these abuses and complaints: one thing I wonder much at, that among so many excellent artizans as haue been, there is not one who took any pleasure to graue in gold, nor became renowned thereby; whereas many are famous for their workmanship in siluer: howbeit, *Menior* (of whom I spake erewhile) excelled them all in this kinde: and yet I doe not find, that euer he made in all, about eight peeces that were curiously and exquisitely wrought, and those (as it is said) be all lost. And no maruell, for why? the temple of *Diana* at Ephesus lieth along: the Capitoll of Rome likewise, and all within it, hath perished by fire. Howbeit, *Varro* hath left in writing, That among his antiquities, one brazen image he had of *Meniors* hand-worke. Next to him, the world had *Acragas*, *Boethus*, and *Mys*, in great admiration for their excellent skill: and at this day there be extant, peece of all their workmanship, to be seen in the Isle of the Rhodians: for in the temple of *Minerva* which is at Lindus a city in that Island, there is one statue of the said goddesse, of *Boethus* his making: within the temple of god *Bacchus* in the very city it selfe of Rhodes, there are certain cups wrought by *Acragas*, wherein bee ingrauen the religious Priestresses called *Bacchæ*, and the Centaurs. Within the same Church, are the pourtraicts of *Silenus*, and the pretty *Cupids*, expressed liuely in imagerie, by *Mys*. Moreover, *Acragas* pourtraied the resemblance of chaces or hunting, in certain pots, most artificially; for which he became very famous. After these, there are to be ranged in another degree, *Calamis* and *Antipater*, together with *Stratoniceus*, who wrought within a broad-mouthed cup, one of the Satyres found asleepe; but with such dexterity and so liuely, that he is judged and said to haue couched and substituted him to the cup, rather than barely ingrauen him. Then followes *Tauriscus* of Cyzicum: sensibly *Arifus* and *Euniceus*, both Mityleneans, are highly commended: as also *Hecateus* and *Praxiteles*, who flourished about the time of *Pompey* the Great. *Posidonius* also of Ephesus, and *Ledus* the Stratiat, who was in great name for ingrauing of battels and armed men at the point to joyne skirmish. Likewise *Zopirus*, who made two singular cups; in the one, hee represented the honourable Court of the Arcopagites; in the other, the triall and judgement of *Orestes*: which were esteemed worth twelue talents. In another age liued *Pytheas*, a singular Artificer, whose workmanship was so rare and exquisite, that every two ounces of his siluer plate, was sold commonly for twentie thousand Sesterces: and verily a broad goblet or stand-

* Centum sesteris: a small matter to the former, and about 15 or 16 sh of our money. If you read Sesterium centum, or centum sesteris, in the neuter gender, it is a thousand times as much and that were as monstrous. * Donata, not Donata, according to Budens.

* I could see this done more pluely: but in respect of civill minds & cases I am willing enough to leave it as obscure in English, & I found it in Latine.

ding piece there was of his making, with a deuise appendant to it, for to be set too and taken by a vice, and the same resembled *Vlixes* and *Diomedes*, stealing the Palladium out of the temple of *Minerva* in Troy. The same workman deuised to set into little cups, prettie images or mannikins resembling cookes, which he termed *Magiriscia*, but so finely & delicatly wrought they were, that the patterns of them could not be taken out in any mould, without hurting and spoiling; so subject were they to any outward injuries in the handling. Furthermore, *Teucer* was famous in his time, for his dexterity and light hand in shallow imbossing. Well, in as great request as these artificers were in times past, yet this cunning decayed all on a sudden, and grew so far out of vse, that nothing now commendeth such pieces of work, but only antiquity: in which regard, how neare soeuer they be worne with continuall handling, in so much as the shapes and proportions of the imagerie ingrauen cannot be discerned, yet great store is set by any such antique plate where soeuer it is to be had.

Ouer and besides, it is to be noted, that siluer will rust in medicinable waters, such as stand vpon some especiall mine; yea, the salt aire breathing from them, is able to infect it: as wee may see in the Mediterranean parts of Spaine far remote from the sea.

Also, in mines of gold & siluer, there are ingendred certain mineral colours seruing for painter, to wit, * Sil and Azur. As for Sil, to speake properly, it is a kind of muddy slime: the best of this kind is called *Atticum*: and euery pound of it is worth 32 deniers. The next in goodness is hard as stone or marble, and carrieth hardly halfe the price of the other named *Atticum*: there is a third sort, of a fast & compact substance, which because it is brought out of the Island *Scyros*, some call *Scyricum*: and yet of late verily, we haue it out of *Achaia* also, and this is the Sil that painters vse for their shadows: this is sold after two sesterces the pound. As for the Sil which commeth out of France, called the Bright Sil, it is sold in euery pound two asses lesse than that of *Achaia*. This Sil, and the first called *Atticum*, painters vse to giue a lustre and light withall: but the second kinde, which standeth vpon marble, is not imploied but in tablements and chapters of pillers, for that the marble grit within it, doth withstand the bitterness of the lime. This Sil is digged likewise out of certain hills not past 20 miles from the city of Rome: afterwards, they burne it, and by that means do sophisticate and sell it for the fast or flat kinde named *Pressum*: but that it is not true and natural, but calcined, appeareth euidently by the bitterness that it hath, and for that it is resolu'd into powder.

CHAP. XIII.

¶ Of * Sil, * Caruleum, Nestorianum, and Calum. Also that all these kindes keep not the same price euerie yeare.

Polygnotus and *Mycon* were the first Painters who wrought with Sil or Ochre, but they vsed onely that of Athens in their pictures. The age insuing, imploied it much in giuing light vnto their colours, but that of *Scyros* and *Lydia* for shadowes. As for the *Lydian* ochre, it was commonly bought at *Sardis*, the capitall city of *Lydia*, but now it is growne out of all remembrance.

As touching *Caruleum* or Azur, it is a certaine sandy grit or powder: of which, in old time there were knowne 3 kinds: to wit, the *Aegyptian*, most commended about the rest: the *Scythian* which is easie to be dissolued and tempered, and in the grinding turneth into foure colours: namely, the Azur, which is of a pallet colour, called therefore the whiter; the blacker Azur of a deeper blew; there is the Azur also of a grosser substance; and the fourth of a finer. The *Cyprian* Azur is preferred before that of *Scythia*. Ouer and about those Azures before named, wee haue some from *Puteoli* and Spaine, where they be artificiall, and they haue taken to making it, of a kind of sand. All the sorts of these Azurs, receiue first a dye, and are boiled with a certain hearbe appropriat to it, called *Oad*, the colour and iuice whereof Azur is apt to drinke in and receiue. As for all the preparation and making of it otherwise, it is the same that belongeth to *Chrysocola* or *Borax*. Of Azur there is made that powder which wee call in Latine *Lomentum*, for which purpose it must be first punned, puluerized, and washed; and this is whiter indeed than the Azur it selfe: sold it is after three and twentie deniers the pound, whereas Azur may be bought for eightene. Herewith they vse to paint walls that be ouercast with plasters, for lime it will not abide. Of late daies there is a kinde of Azur growne into request, called *Nestorianum*,

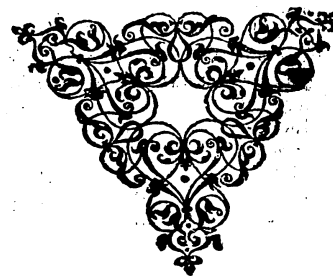
num, taking that name of him who first deuised it: made it is of the lightest part of the *Aegyptian* Azur, and it costeth 40 deniers the pound. Of the same vse also is the Azur of *Puteoli*, laue only in windows; and this some call *Coelon*. It is not long, since another kind of Azur or blew named *Indico*, began to be brought ouer vnto vs out of India, which is prized at 17 deniers the pound. It serueth painters wel for the lines called *Incisura*, that is to say, for to diuide shadows from lights in their workes. To conclude, there is another kinde of *Lomentum* or blew powder of the basest account of all other; some call it *Tritum*, and it is not esteemed worth aboute fife asses the pound.

But to try the right and perfect Azur indeed, the best experiment is to see whether it will flame vpon a burning cole. As for the false and sophisticat Azur, it is thus made: they take the floures of violets dried, and boile them in water: the iuice they presse forth through a linnen cloth, and mix the same with the chaulky earth called *Eretria*, vntill such time as it be well incorporated with it.

To proceed vnto the medicinable vertues of Azur: It is holden to be a great clenfer, & therefore it mundifieth vlcers: in which regard, it entreth into plasters: as also into potentiall cauteries. As touching Ochre or Sil, it is exceeding hard to be reduced into powder: and this also serueth in Physicke; for it hath a mild kind of mordacity: astringent it is besides & incarnatiue; in which respect, soeueraigne to heale vlcers: but before that it will doe any good, it ought to be burnt and calcined vpon an earthen pan.

To conclude with the prices of all those things named heretofore: how soeuer hitherto I haue set them downe, yet I am not ignorant, how they vary according to the place; yea, and alter in manner euery yeare: and well I wot, that as shipping and nauigation speeds well or ill, as the Merchant buyeth cheap or deare, the price may rise and fall. Againe, it falleth out, that sometime one rich munger or other, buying vp a commodity, and bringing it wholly into his owne hands for to haue the Monopoly of it, raiseth the market, and inhaunceth the price: for I remember well, how in the daies of *Nero* late Emperor, all the spicers, druggers, and Apothecaries, preferred a Bill of complaint vnto the Consuls, against one *Demetrius* a regrater. Yet notwithstanding, I thought it necessarie to put downe the prices of things as they are ordinarie

valued at Rome one yeare with another, to shew in some sort (by a generall estimat) the worth of such wares and commodities whereof I haue written.



THE XXXIV. BOOKE OF THE HISTORIE OF NATURE, WRITTEN BY C. PLINIUS SECVNDVS.

The Proem.

CHAP. I.

¶ The Mines of Brasse.

IT is now time to go in hand with Mines of Brasse, a mettall esteemed most of all other next to Gold and Silver, in regard of the uses about which it is employed: nay, if I should say truly, preferred it is (especially that which is called the laton of Corinth) in diuers respects before silver, yea, and gold it selfe: for brasse (I may tell you) is of great authority in the campe, and carrieth no small stroke among souldiers in regard of their pay, which (as I haue said before) was weighed them out in brasse: and hereupon their wages-money is vsually called by the name of *Era militum*. From this mettall likewise, the generall Receiuers and Treasurers take their title of credit and place: for at Rome they be called *Tribuni aerarij*, as a man would say, The Tribunes or Officers to the chamber of brasse coine, that is indeed, of the Treasury: hereof also is the Chamber of the city or Treasury it selfe, called *Aerarium*: finally, those that be deeply indebted to any man, are in Latine named *Obserati*, as it were charged and pressed with the heauy burden of brasse, i. debt. Moreover, I haue shewed already (for the greater credit and authority of this mettall) for how many yeres together the people of Rome vied no other money but brazen coine. And otherwise, as may appeare by antient records and histories, the credit of brasse took root at the beginning, and hath bin in authority euer since Rome was Rome: an euident prooffe whereof we haue from *K. Numa*, who founded and erected a third society or confraternity of brasse-founders. As touching the ore or veine of brasse, digged it is out of the mine in manner aforesaid, but it is tryed, & brought to perfection by fire. Made also it is of the Chalamine stone, named otherwise *Cadmia*. The best mines of brasse that yeeld the excellent mettall, are now in Asia: howsoeuer in old time Campaine in Italy carried the name. And euen at this day, the brasse digged out of the mines within the territory of the Bergomats in the farthest part of Italy, is in great request: and as it is said, there are good mines thereof discovered lately in Germany, a Prouince vnder the Roman Empire.

CHAP. II.

¶ Diuers kinds of Brasse: and namely, the Brasse of Corinth, of the Isles of Delos and Egina.

IN the Island of Cyprus, where first were found mines of brasse, the same is made of another stone also besides *Cadmia*, which they name *Chalcitis*: but this * Cyprian brasse fel soon to beare a low price, by reason of a better kind which other countries did yeeld: and principally the laton called *Orichalcum*, which for a long time was counted the best and held in greatest admiration. Howbeit, this kind of brasse hath not bin gotten for these many yeres, as if the earth were

were not in heart, and had giuen over bearing of it. Next to this *Aurichalcum*, the most reckoning was made of the brasse *Sallustianum*, within the tract or quarter of the Centrones among the Alps: neither held these mines out any long time; but after it, succeeded the *Livian brasse*, discovered in France. These two kinds last mentioned, take name both of the lords and masters of the mines wherein they were digged: the former of one *Sallustius*, a great friend and favorite of *Augustus Caesar* the Emperor: the other of the Emperresse *Livia* his wife: and this mine also quickly failed. And verily of this *Livian brasse* very little or none there is to be had. But now adiaies all the name goes of the *Marian brasse*, which also is called *Cordubense*: and to say a truth setting aside the aboue-named *Livian brasse*, there is not any will take the yellow tincture of the *Cadmia* or *Calamine stone* better, or commeth so neer in goodnesse to the laton *Orichalcum*, as if a man would say that a piece of coin stamped of it, were a sesterces, or at leastwise a double As, to the Cyprian piece, which is but a single As. And thus much concerning the degrees in goodnesse and credit, of those kinds of brasse which be naturall.

There be other sorts of brasse mettall, which stand vpon an artificiall mixture and temperature, whereof I purpose to write in more ample manner in place conuenient, after I haue shewed aboue all other things the excellencie of this mettall in generalitie, thus tempered. In old time there was a mixt mettall made of brasse, gold and silver, melt and confused all together, whereof were made singular pieces of worke: and albeit the mettall was rich and precious, yet euer more the workmanship was the dearer and went beyond it. But now, it is hard to say, whether is worse of the two, the matter or the art that is seen in it. But certes, I cannot but maruell much how it commeth to passe, That these brazen workes, hauing alwaies bin from time to time so dear, and growing so infinitely as they do still in price to be bought & sold, yet the magnificence and credit of this art is so much decayed & utterly gone? But I take this verily to be the cause, that in times past artificers wrought for to win glory and fame; & now, as all things els, for gain and lucre only. Certes, in old time the fear of casting mettall was counted so magnificent, that the Poets ascribed it to some of the principal gods, as a mystery befitting their diuine workmanship; in so much, as the great lords and noble princes of the world fought to win an immortal name by this means: and yet I say for all that, the manner of tempering and casting this precious *Mascellin*, this compound mettall I mean of gold, silver, and brasse, is so far grown out of practise and knowledge, that for these many yeres past Fortune her selfe hath had no power either to retain or to restore the antient art belonging thereto. But setting aside the glorious *Mascellin* of old time, the Corinthian brasse mettall was most highly commended: and the same mixture happened euen by mere chance and fortune, when the city Corinth was woon, sacked and burnt to the ground: and wonderfull it is how the minds of many great men was affected to this compound mettall, and how they stood vpon the hauing thereof, in so much as (by report) there was no other cause in the world why *Kerres*, whom *Cicero* had caused to bee condemned, was together with him proscribed, outlawed, and banished by *Antonie*, but only this, For that he vaunted that he had as goodly vessels and pieces of Corinth mettall as himselfe, and would not part with any of them to *Antonie*: howbeit, in my conceit, most part of those men who delight thus in this Corinth *Mascellin*, in a certain singularity by themselves, because they would seem to know more than their fellows, make semblance rather of a special insight and skill, than they haue therein, than know indeed anything by it of such exquisite stuffe. And this will I shew and declare to you in few words: the city of Corinth was won and destroyed in the 156 Olympias, and the third yere thereof, which fell out to be in the 508 yeres by our computation at Rome: now long before this time, those great masters and imagers, so famous for mettall-founding and casting of Images were dead and gon; and yet all the pieces of their making, these men forsooth at this day will needs haue to be of Corinthian medley, and so they call them. And therefore to disprove this errorious opinion of theirs, I purpose as I proceed in this my discourse, to range all the notable artificers that antiquity hath knowne in this kind, according to the seuerall ages wherein they liued & flourished in the world. For ease it will be to calculate and collect the yeres from the foundation of our city, by the former comparison of them with the Olympiades. All the vessels then which our delicats haue, those I mean that would seem to be more fine in their houses than their neighbors, are only of the Corinth mettall, and no better, which they cast partly into pots and pans, and such like kitchen vessels for to seeth meat in; partly into candlesticks, chafers, chamber pots, and such like homely and base vessels, without any regard of cleanness, and

* As if he would say, this mettall is so much better than the Cyprian brasse & sesterces, as the *Draconidius*, is of more value than As: i. double, or double and halfe.

and neat seruice. But this Corinthian mettall may be reduced well into three principall kinds, G to wit, the white, which commeth nearest in brightnesse to siluer, as standing most indeed vpon the mixture of siluer: the second yellowish, according to the nature and colour of gold, which beareth the chiefe stroke in it: and a third of an equal medley and temperature, wherein a man shall not perceiue any one mettall predominant.ouer and besides, these 3 sorts of Corinthian brasse, there is another kind of Maseellin, as touching the mixture whereof precisely, we are not able to yeeld any reason: for although there be found Images and statues thereof made, wherein we may see the handy worke of man, yet it should seem that Fortune in some sort hath giuen the temperature thereto: and that dainty and precious colour that it hath, is a deep red, much resembling that of the liuer, and therefore they call it commonly Heparizon. Short it commeth far of the Corinthian mettall, but out-goeth a great way the brasse either of Egina or Delos, which two mettalls for a long time were thought to be the chiefe. And in very truth, for ancient glory and name the Deliake brasse may challenge the first place: for thither, as to a mart or fair, there was great resort of chapmen from all parts of the world, & specially of those artificers who were curious in making of table feet, trestles, and bed-steads: and indeed the finest workmanship at first was seen here, and thereby artificers came to be inobled. But in proceesse of time they went farther, euen to cast the images of gods, the personages also of men for statues, yea, & the solid forms and pourtraits of beasts and other such liuing creatures. After this brasse of Delos, the most account was made of that which came from Egina: an Island this is without any mine at al of brasse in it, howbeit, much renowned for the excellent mettall-founders therein, in regard of the singular temperature that they gaue vnto their brasse. The brasse Ox which standeth in the beast market at Rome was brought from thence. And this may serue for a paterne of the Eginetick brasse: but the image of *Iupiter*, erected within the chappel of *Iupiter*, fyrnamed Thundring, in the Capitoll, is the true paterne, testifying what kind of brasse that of Delos was. And, as *Myron* was wont to cast the mettall of Egina in all his works, so *Polyclethus* vied ordinarily that of Delos for this purpose: and these two were rare Imageurs, liuing at one time, and prentises at the Art together: but they indeauoured to surpasse one the other in diuers mettalls which they occupied.

CHAP. III.

¶ Of Candle-sticks and Ornaments belonging to Temples, made of Brasse.

IN old time the Island Egina was in especiall fame for the workmanship only of the branches, sockets, & heads of candle-sticks, like as *Tarentum*, for the shanke, shaft, & body supporting the same: and therefore that candle-sticke was counted rich indeed, when both these places seemed to concur to the making and workmanship thereof: for such a candle-sticke some haue not bin ashamed to giue as much money as the salarie and yearly pension of a Tribune militarie or Colonell, commeth to: and yet you see, an implement or moueable it is, that hath but a vile & base name, for called it is in Latine *Candelabrum* of sticking a candle in it. But wil you know who was so foolish as to bestow so much vpon a candle-stick, and what a tale belongeth therunto, for to mend the hard bargain thus stood the case: it was a jolly dame in Rome, named *Gegania*, who made this wise match. And when she had so done, she must needs forsooth make a feast to shew this candle-stick to her guests, which cost her 50000 sesterces. Now *Cleippus*, the founder or Brasier that sold in her, was misshapen and bunch-backed. And order was taken by the commandement of *Theron* a publick crier of Rome, that he should in the midst of supper be brought into the place stark naked as euer he was borne (and as foule and ill fauoured a fellow he was otherwise as a man should lightly see) under a colour to make sport and to set the company in laughing, but indeed to mocke *Gegania*, the Mistrisse of the house. But what followed therupon? The woman cast a fassie to him by and by, and in that heat of loue, or lust rather, admitted him anon to her bed, and after set him into her will, and made him her heire. This crooke-backed squire seeing himselfe exceedingly enrich by this double bargain, adored the said candlestick no lesse than a god, as the only cause of his rising, and all the wealth he had, and thus by his occasion, one tale more goeth current abroad in the world, of Corinthian vessels. And yet afterwards (as it were to punish his Mistrisse for that slight behauiour of hers) he caused a stately and magnificent sepulchre to be made for her, whereby the infamy and shame of *Gegania* might be eter-

Which was a taler, or 50000 sesterces.

**Cleippus* sutor gibber, &c. not Full. Whoas it should seeme, was one other guests, & knew how to play his part well enough.

A eternized and continue fresh in remembrance with all posterity. But to return again to Corinthian Brasse and the vessels made thereof, although it be well knowne, that there are no Candle-sticks indeed made of that Maseellin, yet there goeth a great name of them, as if they aboue all other things were certainly cast of that mettall: and the reason is, because that *Mummius*, as in the heat of his victorie he sacked and destroyed Corinth, so withall hee dispersed the brasse by parcels and piece-meale, and sent it away into many other townes and cities of Greece.

Moreover, this is to be noted, That in old time it was an ordinary thing to make of brasse, the sides, lintels, sills, and leaues of great doores belonging to temples. I read also in Chronicles, that *Cn. Octavianus*, who defeated *K. Persus* in fight at sea, and rode in triumph for that naual victorie, caused the double gallerie, which standeth neere vnto the Cirque of *Flaminium*, to be erected, which was called the Corinthian gallerie, for that the chapters of the pillars were of brasse. Furthermore, the Annals do testifie, that it was thought good, That the route of the chappel of *Vesta*, should be alwaies couered ouer with Brasse, after the manner of *Saracossian* work. Likewise *M. Agrippa* made all the chapters of the pillars, standing in the temple *Pantheon*, of Syracusan brasse, which remaine at this day to be seene. And not onely publick places and buildings were thus beautified and adorned, but great mens priuat houses also were enriched by this mettall: for it appeareth vpon record, That *Sp. Carvilius*, one of the Treasures of Rome, amongst other criminal imputations that he objected to *Camillus*, challenged him for this, That the doores of his dwelling house were plated and garnished with brasse & copper. Moreover, as *L. Piso* reporteth in his Chronicle, *Cneus Manlius* after his conquest of Asia, was the first that in the triumph wherein he rode in the yeare after the foundation of Rome 568, he made a shew of three-sided tables, cup-bourds, and bourds, supported by one foot all of brasse. And *Valerius Antias* verily doth write, That *L. Crassus*, heire to that great Orator *L. Crassus*, made sale of many such brassen tables, which fell vnto him by right of inheritance. Semblably, I find in the histories, That in old time they were wont to make many large basons, supported with a frame of 3 feet, known by the name of Delphick basons, for that they were commonly dedicated to *Apollo*, the patron or god of Delphos, for to receiue the gifts and oblations offered to him. In those daies also the lamp-branches hanging aloft in churches, spreading out their arms abroad and carrying lights like trees bearing fruit, were vsually made of brasse: and such a one is to be seen in the temple of *Apollo* within the Palatine hill at Rome: which being found by *Alexander* the great in the sac- cage of Thebes, the said prince dedicated to the god *Apollo* at Cyme, a towne in *Æolia*. To conclude, this art of founding and casting brasse proceeded farther and passed on, vntil it was commonly practised in making the idols and images of the gods.

CHAP. IIII.

¶ At what time the first brassen Image was cast at Rome. The first originall and beginning of statues, and the honour that belonged to statues. Also the diuers kinds and fashions of them.

THE first Image of brasse that euer was made at Rome, I finde to be consecrated to *Ceres*, & raised it was out of the goods of *Sp. Cassius*, who aspiring to be a king, was therefore slaine by his owne father. But this honor continued not long proper to the gods, but passed from them vnto the statues of men also and their portraictures, and that after sundry sorts. In ancient time the manner was to vernish their images and statues of brasse, with * Bitumen: more martial it is therefore, that afterwards men should take such pleasure to guild them as they did: this inuention, whether it came from Rome or no, I know not: but if it did, surely it was no ancient deuise, nor of any long continuance there. Certes, the manner was not in old time to expresse the liuely similitude of men in brasse, vnlesse they were such worthy persons as by some notable and famous acts deferred to be immortalized, as namely, for winning the prizes at any of the foure sacred and solemn games holden in Greece, and principally at those of Olympia, where it was an ordinary thing to see the statues of those erected and dedicated, who had atchieued any victory there. But in case any one were so happy as to obtain victory at those solemnities 3 seuerall times, his statue in brasse was so liuely & perfectly cast, that it resembled his person full & whole, according to the proportion of euery member, joint and muskle of the body, yea, euen to the

* or as some say, with kind of Amber.

the haire of the head and beard. And such kind of complete images, the Greeks vse to call Iconicæ, personages. The manner of the Athenians was to honour men of singular vertue and valour, by representing their personages in brasie; but I am not sure whether those Athenians were the first that brought vp that manner or no: true it is, that long ago they caused statues of *Harmodius* and *Aristogiton*, to be made of brasie at the charges of the state, and to be erected in publick place, for that they had the courage and heart to kill *Pisistratus*, who tyrannized ouer them; and this fell out just in that very yeare wherein the kings were also deposed at Rome, and expelled the city for euer. And in proesse of time this manner was taken vp in all parts of the world: so plausible to the nature of man is the ambitious desire to perpetuate their memorie by such monuments, in so much as there is not a good towne within our prouinces, but they haue begun already to beautifie their market places with many such ornaments of brasen statues & images; together with titles, honours, and dignities ingrauen at the bases or pied-stal therof, for the better continuance of mens memoriall, that the posterity might be informed by such inscriptions, as well as by their tombs and sepulchers. And at length the ambition of men proceeded so far, that, as well their priuat houses within, as the base courts and porches without, were so beset with images, that a man would take them for some publicke places within a city: and all this arose from the deuote courtesie of vassalls, in token of homage and honour done to those their patrons and lords, whom they acknowledged to be the protectors and maintainers of their life and liberty.

CHAP. V.

¶ Of brasen statues in long robes, and diuers other sorts of Images. Whose statues were first erected vpon pillars. When they were set vp first in publicke, and at the common charges. Finally, which were the first in Rome.

IN antient time all the images and statues erected to the honour of any men, were in their gowns and robes. Men delighted also to haue them otherwhiles all naked, resting vpon their spears which they held in their hands: this pattern came from the Greeks, resembling the manner of their yong men, which in that sort did exercise naked in their publick wrelling places, thereupon called *Gymasia*: and such images are named *Achilleæ*. And verily, the Greekish fashion it is, To hide no part of the body, but to shew all: whereas the Romanes contrariwise (like souldiers and military men) vsed to make their statues armed with a cuirace or breast plate only, leauing the rest of the body discouered and bare. And *Iulius Caesar* verily the Dictator, was well content that his image should be set vp in the Forum or common place at Rome, armed with an habergeon or coat of male. As for such statues which represented in habit the priests of *Pan*, called *Luperci* (i. all discouered but their priuities) it is an inuention new come vp, and as lately deuised as those which be pourtraied in clokes or mantles. *Mancius* appointed that his image should be erected in that habit and manner, that is to say, bound and vnarmed, as he was deliuered prisoner to the Numantines his enemies. As touching the statue of *L. Afcus*, a famous Poet, I will report vnto you what writers haue recorded, namely, That being himselfe a very little man and low of stature, he caused his image to be made exceeding big and tall, and so to be set vp within the temple of the Muses at Rome. As for the statues represented on horse backe; in great name and request they were among the Romans: but no doubt they had their precedent from the Greeks. At first they honoured such horsemen only in this sort, who had won the price in the race at those solemn & sacred games which were held in Greece, and those horse-runners they called *Celeres*. howbeit, afterwards the like honor obtained they, who had born themselves best at the running of chariots, whether they were drawn with 2 horses or four. And from hence came the manner with vs of our valiant captains and victorious generalls, to haue their statues made riding triumphant in their chariots. Howbeit, long it was first ere this fashion came to be taken vp: and before the daies of *Augustus Caesar*, late Emperour of famous memory, there had not been knowne any such images at Rome riding in chariots either drawne with six steeds, or Elephants, as now there be. The manner also of riding in coches with 2 horses about the cirque or shew place (which vsually they did who had bin lords Pretors of Rome) represented in their pourtraitures, is not antient.

Con-

A Concerning statues erected vpon columns or pillars, they be of greater antiquity, as may appeare by that of *C. Menius*, who vanquished the antient Latines that inuaded the territory of Rome: vnto which nation, the people of Rome was woont by vertue of the league, to allow the third part of the bootie and pillage gotten in the wars: during the Consulship of which *C. Menius*, vpon the victory atchieued of the Anriats, the city of Rome ordained, that the beak heads with their brasen tines, which were taken from them in a confliat at sea, should be fastened vnto the pulpit of publicke pleas and Orations, which thereupon was euer after called *Rostra*: and this fortun'd in the 416 yeare after the foundation of Rome. The like statue vpon a column was set vp for the honour of *C. Duilius*, who first defeated the Carthaginians by sea, and for that naturall victorie entered Rome in triumph: the same remaineth at this day to be seen in the Forum or grand place of the city. Semblably, *P. Minutius* obtained the same honour, who being Puruei- or generall of corne for the city in time of a dearth, behaued himselfe so well in that office, that his statue of brasie was erected vpon a pillar without the gate of Rome called *Trigemina*: and that by an vniuersall contribution of the people, who gaue voluntarily toward the charges thereof, every man to the value of an ounce of brasie coine. And I wot not whether I may boldly say that he was the first man who receiued that honour at the peoples hands: for before time I am well assured that the Senat only granted such rewards for mens good seruice. Certes, these were braue and honourable memorials, had they not begun vpon occasion of some trifling matters to speake of. For such a statue was that of *Afcus Nauis* the Augur or Soothsayer, which stood before the entrie of the Curia or Councell-chamber of Rome: the base or foot of which pillar was burnt, at what time as the said Curia or Senat-houfe caught a light fire, at the funerals of *P. Clodius*. The like image was set vp (by authoritie from the State) in the publicke place of elections at Rome, called *Comitium*, to the honor of *Hermodorus* the Ephesian, who translated out of Greeke into Latine the lawes of the 12 tables, which the ten Decemvirs had gathered and set down for the publicke benefit of the city. As for the statue of *Horatius Cocles*, which remaineth to this day, there was another reason of it, and the same of greater credit and importance: for that he alone sustaining the charge and brunt of *K. Porseus* army, made good the wooden bridge ouer Tybre at Rome, and caused the enemies perforce to abandon the place. As touching the Statues of the Prophetesses *Sibylle*, three of them there be neare vnto the *Rostra*, before said, but of a lesse making, whereat I nothing maruell: the one was repaired by *Sex. Pacuvius Taurus*, one of the *Ediles* of the Commons; the other two by *M. Messala*. And I assure you I would haue taken these Images and that of *Afcus Nauis* to haue bene the most antique of all others, as being set vp in the daies of *K. Tarquinius Priscus*, but that I see the statues of the former kings within the Capitoll.

CHAP. VI.

¶ Statues without gowne or robe at all. Of other Statues. Which was the first statue on horse-backe. When and whereupon all the Images, as well publicke as priuat were demolished and put downe. What women they were at Rome who were honoured with brasen statues: and which were the first statues erected publicquely at Rome by strangers.

AMONG the said Statues of Roman kings, that of *Romulus* is without any coat or cassocke at all, like as that also of *Camillus*, which standeth at the pulpit *Rostra*. As for the Image of *Q. Martius Tremellius*, which was erected before the temple of *Castor* and *Pollux*, the same was in a gowne, and sitting vpon horse-backe: this noble knight had vanquished the Samnites twice: and by the winning of *Anagnia*, a city not far from Rome, procured thereby an easment vnto the people, from paying tribute vnto the state for the maintenance of the wars. In the ranke of the most antique monuments of Rome, I may range the statues of *Tullius Clatius*, *L. Roscius*, *Sp. Nautius*, and *C. Fulcinius*, which stand about the Pulpit *Rostra*: and these were the foure Roman Embassadors, who against all law of Nations, were during their embassage murdered by the Fidenatians. For this was an ordinary custome with the Romanes, to honour those in this manner, who in the seruice of the Commonwealth were vniustly killed: as may appeare likewise by *P. Iunius*, and *T. Coruncannus*, who by *Tenca* the queene of the Illyrians were put to death, notwithstanding

* The twelfth part of the book As.

withstanding they came in embassade to her. And here I cannot ouerpasse one point noted in the Annals, that the measure of the statues erected in the common place at Rome, was set down precisely to be three foot in height: whereby it may appeare, that this proportion and scantling in those daies was thought to be honorable. Neither wil I conceale from you & omit the memorable example of C. * *Othanius*, who for one word speaking lost his life: this man being sent as Embassadour vnto king *Antiochus*, and hauing deliuered his message vnto him according to his charge and Commission, when hee saw that the king made no haste to giue him his dispatch presently, but said hee would make him an answer another day; made no more adoe, but with a wand or rod that he had in his hand, drew a circle about the king, and compelled him by force to giue him his answer before he stirred his foot without that compasse. But this cost him his life: and for that he was killed thus in his Embassage, the Senat of Rome ordained, That his statue should be erected in the most conspicuous place of the city, and that was in the publick pulpit for Pleas and Orations, the Rostra before named. I read in the Chronicles, that the Senat made a decree, that *Taracia Caia*, or, as some say, *Suffetia*, a Votary or Vestall Nun, should haue her image made of brasse, and this speciall prerogative besides, that she might set it vp in what place she would her self: which addition or branch of the decree implieth no lesse honor than the grant it selfe of a Statue to a woman. What her desert might be, in consideration whereof she was thus honoured, I will set downe word for word, as I finde it written in the Chronicles, namely, *For that she had conferred fr ankely vpon the people of Rome, a piece of meadow ground lying vnder the Riuer Tybre, which was her owne Free-land.* I finde moreover vpon record, That the Statues of *Pythagoras* and *Alcibiades* were set vp in the cornered nouke of the Comitium at Rome, & that by direction from the Oracle of *Apollo Pythius*, vnto which the Senate sent of purpose to know the issue of the Samnites warre, which was then in hand: from whence they had this answer, that if they looked to speed well in their affaires, they should take order to erect two statues of brasse in the most frequented place of the city of Rome, the one in the honour of the most valiant man, and the other in the honour of the wisest person of all the Greekish Nation: which Images remained there vntill such time as *Sylla* the Dictatour built his stately hall or pallace in the same place: But I maruell very much, that those sage fathers (the Senators of Rome at that time being) preferred either for wisdom *Pythagoras* before *Socrates* (considering that the said *Socrates* by the very same Oracle of *Apollo*, was judged the wisest man, not of Greeks onely but of all others in the world;) or in regard of valour, *Alcibiades*, before so many hardie Captaines in Greece: but most of all I muse, that in both respects, as well of wisdom as of vertue, they set any one before *Themistocles*. Now if a man be desirous to know the reason of these Columns and Pillars, which supported those Statues afore said, it was to signifie, That such persons were now aduanced and lifted vp above all other mortall men: which also is meant by the triumphant Arches, a new inuention, and deuised but of late daies: yet both it, and all other such honourable testimonies, began first with the Greekes. But amongst many and sundry statues which they granted and allowed vnto such as they affected and liked of, I suppose, there was neuer man had more than *Phalerius Demetrius* at Athens: for the Athenians honoured him with three hundred and threescore: and yet soone after they * brake them all to peeces, even before one full yeare went ouer their heads, that is to say, a few daies more than there were Images. Moreover, all the tribes or wards of Rome set vp a statue in euery street of the city (as I haue said before) in the honor of *Marinus Gratidianus*, and those they ouerthrew euery one, against the comming in of *Sylla*.

* Strabo saith that they defaced & melted them, yea, and hung hem in to draughts and priuities.

As touching statues and Images on foot, I doubt not but they haue beene for a long time greatly esteemed at Rome. Howbeit those on horse-backe were very antient: and that which more is, this honour they did communicat also vnto women as well as men; as may appeare yet at this day by the statue of *Clælia* sitting on horse-backe, as if shee could not haue beene honored sufficiently by making her statue in the habit of a Damofell or Ladie of Rome in a side gowne. And yet neither the Chaste dame *Lucretia*, nor the valiant *Brutus* (who chased the kings and all their race out of Rome, and for whose sake and in whose quarrell the said *Clælia* was deliuered as an Hostage among others) neuer attayned vnto that honour. And I doe verily beleue, that this Statue of hers, and that of *Horatius Coclès*, were the first that publique authoritie ordaind: for before time King *Tarquinius Priscus* caused both his owne Statue and also *Sibyllæ* to be made, like as the other kings before him and after, as may be presumed by all likelihood

And yet *Piso* saith, that the other damofels and young gentlewomen her fellow hostages, after they were set free and sent home safe againe by king *Porfena* (for the honour that he meant vnto *Clælia* in consideration onely of her rare and singular vertue) caused the said statue or image of hers to be cast in brasse, and erected. But *Annus Facialis* (another antiquarie or herald at armes of Rome) reporteth this storie otherwise; for he writeth, That the statue of a woman sitting on horsebacke (which standeth ouer-against the temple of *Iupiter Stator*, and hard at the gate or entry of king *Tarquinius* the Proud his Pallace) was of ladie *Valeria*, daughter vnto *Valerius* the Consul, surnamed *Publicola*: who saith moreover, that shee it was alone who escaped from her fellowes, and swam ouer the riuer *Tiberis*; whereas the rest of the virgins which had been sent as pledges vnto king *Porfena*, were murthered all, by the secret traines and indirect meanes of *Tarquin* the Proud.

L. Piso moreover hath left in writing, that in the yeare when *M. Æmilius* and *C. Popilius* the second time were Consuls, the Censors for the time being (*P. Cornelius Scipio* and *M. Popilius*) caused all the images and statues of those who had been head magistrates, that stood about the Forum of Rome, to be taken downe; permitting those onely to stand which had beene erected and set vp either by grant from the people, or warrant and decree of the Senat. As for that statue which *Sp. Cassius* (him I meane who ambitiously sought to be a king) caused to be erected for his owne selfe before the church of the goddesse *Tellus*, the Censors not onely pulled it down, but also took order that it should be melted. And this (no doubt) did those wise and prouident fathers, to cut off all means euen in such things as these, that might feed the ambitious spirit of men. There be yet extant certaine declamations of *Cato*, who being Censor, cried out against the vain-glorie and pride of certaine Romane Ladies who suffered their own images to be set vp in the prouinces abroad: yet with all his exclamations, he could not repress their ambition, but that their statues must be erected euen in Rome also: as for example, *Cornelia*, the daughter of the former *Scipio Africanus*, and mother to the two *Gracchi*, whose statue was made sitting: and this singularity it had besides from all others, That her shooes were pourtraied open and loose without any strings or latches at all. This image of hers was set vp in the great gallery or publick walking-place of *Metellus*, but now it is to be seen among the stately workes and buildings of *Octavia*.

Moreover, (by allowance and permission of the state) there haue been statues set vp in Rome in publicke place, by strangers: as namely, for *C. Alim* a Tribune or Prouost of the commons, for that he published and enacted a law, That *Stennius Statilius* a Lucan, who twice had invaded and ouer-run in hostile manner, the Territory of Thurium, should be reputed as an enemy vnto the Romanes: In regard of which demerit, the Thurines honoured the said *Alim* with a statue of brasse, and represented to him a coronet of gold. The same Thurines also caused another statue to be made in the honour of *Fabricius*, for raising the siege that inuested and beleaguered their citie. By occasion of which succour and reliefe giuen vnto strangers and aliens, it came to passe in proceffe of time, that forrein states and cities shrouded themselues ordinarily vnder the protection of some great men at Rome; and in deuotion to them, honoured such as their lords and masters, by statues and all other means, euen as their bounden vassels. At length, there grew such disorder and confusion of these statues, that we had them pell mell at Rome without any choise or regard at all: insomuch as it this day, they are no fewer than three statues of *Anniball* to be scene at Rome, in three severall places of that citie, within the walls whereof he was the onely enemy euer knowne to haue launced his iavelin.

CHAP. VII.

¶ Of the Brasse-founders in old time. The inestimable prices of molten Images. Of the most renowned Colosses and gyaunt-like Images in Rome.

That the art of Founderie or casting mettals for Images hath been very antique, practised also and professen in Italie as well as in other countries time out of mind, may be euidently proued by the statue of *Hercules*, which *K. Evander* consecrated to the honour of him, in that very place (by folks saying) which now is the beast market in Rome. This image is called at this day, *Hercules triumphalis*, and at euery triumph is richly clad in triumphant habit. The image likewise of *Ianus* with two faces, dedicated by *K. Numa*, testified no lesse, and honoured

he is no lesse than a god, as by whom the times of war and peace be distinctly knowne. Moreover, the fingers of his hand are in that sort fashioned and formed, as they represent the number of 365, which are the daies of the whole yere; by which notification of the yere, he sheweth sufficiently, that he is the god and patron of time and ages. The images also which are known commonly by the name of Thufcanica, which are so dispersed abroad in all parts of the world, who will euer doubt but that they were commonly made in Tuscan? I would haue thought verily, that these Thufcanica had bene the images of the gods, and no other, but that *Metrodorus Seepius* who for the immortal hatred that he bare against the Romans had his * surname given him, reproches the Romanes among other imputations, That they had forced and sacked the towne Volfinij, for the loue of two thousand pretty images in brasse which were therein. Considering then, that the inuention of making such molten images hath been so antique in Italie, I cannot chuse but much maruaile, that the idols and images of the gods in times past dedicated in churches and chappels, were either of wood or potters earth, rather than of brasse, vntill the conquest of Asia, from whence to say a truth, first arose and proceeded all our excessse and superfluities. As touching the first deuise and originall of casting by moulds and forming the liuely similitudes of any thing expressely to the paterne, I shall haue fitter and better occasion, to write thereof in my treatise of the art of Pottery, which the Greeks call *Plastice*; for of more antiquity I take it to be than this feat of Foundrie: & yet this craft and cunning so flourished in times past, and brought for art such excellent pieces of worke, and for number so infinit, that if I should put down the greater part of them, it would require many volumes; for, to comprehend them all, what man is able? During the time that *M. Scavrus* was *Aedile*, there were three thousand molten images shewed vpon the stage when he exhibited his plaies, notwithstanding this theatre of his was made not to continue any time, but to serue for the present. *Mummius*, after the conquest of Achaia, brought in with him so many of these images, that hee filled the citie therewith, and no corner was free: and yet when he departed this life & died, he left not behind him a competent portion for to bestow his daughter in marriage. And this I write not to accuse and condemne so braue a man, but rather to excuse and commend him: for how can I otherwise doe? The two *Luculli* stored Rome with a number of these images. *Mutianus* (a man who of late daies had been twice *Consull*) reporteth, That there be yet within Rhodes three thousand such images: and verily it is thought, that in Athens, Olympia, and Delphi, there remaine no fewer to be seen. What man living is able to particularize them all? and say a man should come to the perfect knowledge of them, what good can he reape thereby, or what vse may he make thereof? Howbeit, one would take some delight and pleasure lightly to touch the principall pieces of workmanship in this kind, and namely those that be of marke and note for some special singularity about the rest; as also to name therewith the renowned artificers in times past, who wrought euery one of them a number of pieces, the exquisite and curious workmanship wherof, no man is able to unfold and vtter as they deserue, since that *Lysippus* (by report) made in his time six hundred and ten, so full of art, so excellent and perfect all, as there is not one of them but sufficient it were to immortalize his name. And how was it knowne that hee made such a number just? It appeared plaine after his decease by a coffer that he had, wherein he treasured vp his gold, and which was then broken open by his heire: for the manner of *Lysippus* was, when soeuer he tooke mony for the workmanship of any piece that went out of his hands, to lay by in the said coffer one *denier of gold; and so by the number of those deniers it was knowne, how many pieces of worke he made. Incredible it is to what height of perfection this art grew vnto, first by the successe of the art, which was so vendible and high prized; afterwards, by the audaciousnesse of the artificer, who ventured to make so huge and monstrous works.

What good speed this art had, may appeare by an example which I will set downe, of an image, deuised to expresse the likeness neither of god nor man: and a dogg it was in brasse, which many a man hath seene in our time in a chappell of *Inno* within the Capitoll temple, before it was burnt now last by the **Pirellians*: This dogg was made licking his owne wound; but how artificially it was wrought, and how liuely it expressed the proportion & feature of a dogg indeed, to the wonder of all those that beholding it could not discern the same from a liuing creature, is apparant not only by this, That it was thought worthy to stand in that place and to be dedicated to that goddesse, but also by the strange manner of charge laid vpon them that had the keeping and custodie thereof: for no reall caution of mony was thought sufficient to be

* It doth not appeare what it was, but by all likelihood *metastaseus*.

* It should seeme that the Greekes had a piece in gold answerable in weight vnto the Romane *Denarius* in siluer, which was adram Artick: and this cometh not vnto our French crowne.

* These that sided with *Vespasian*.

to be pledged and pawned for the warrantise, or to counteruaile the worth thereof: Order therefore was giuen by the state, and the same obserued from time to time, that the sextons or wardens of the said chappell should performe the safety and forth-comming of it vnder paine of death.

As touching the bold and venturous pieces of worke that haue been performed and finished by this art, we haue an infinite number of such examples: for we see what huge and giant-like images they haue deuised to make in brasse, resembling high towers more like than personages, and such they called *Colossi*. Of this kind is the image of *Apollo* within the Capitoll, transported by *M. Lucullus* out of Apollonia, a city within the kingdome of Pontus, which in height was thirtie cubits, and cost a hundred and fifty talents the making. Such another is that of *Iupiter* within *Mars* field, dedicated by *Claudius Caesar* the Emperour, which because it standeth so neere vnto *Pompeys* theatre, men commonly call *Iupiter Pompeianus*, and full as big he is as *Apollo* abouenamed. Like vnto these, is the colosse or stately image [of *Hercules*] at Tarentum, the handiwork of the said *Lysippus*, but he is forty cubits high: and miraculous is the deuise of this colosse, if it be true which is commonly reported thereof, namely, that a man may moue and stirre it easily with his hand, so truly ballanced it stands and equally counterpoised by Geometry; and yet no wind, no storme or tempest, is able to shake it. Certes, it is said, that the workeman himselfe *Lysippus*, provided well for this danger, in that a pretty way off he reared a colunne or pillar of stone full opposit to the winds mouth, for to breake the force and rage thereof, from that side where it was like to blow and beat most vpon the colosse: and verily so huge it was to weld, and so hard to bee removed, that *Fabius* surnamed *Verrucosus*, durst not meddle withall, but was forced to let it alone & leaue it behind him; notwithstanding he brought with him from thence another *Hercules*, which now standeth within the Capitoll. But the Colosse of the Sun which stood at Rhodes, and was wrought by *Chares* of Lyndus, apprentice to the abouenamed *Lysippus*, was aboue all others most admirable; for it carried seuentie cubits in height: well, as mighty an image as it was, it stood not on end aboue threescore yeares and six; for in an earthquake that then happened, it was ouerthrowne: but lying as it doth along, a wonderfull and prodigious thing it is to view and behold: for first and foremost, the thumbs of the hand and great toes of the foot are so big, as few men are able to fadome one of them about: the fingers and toes are bigger than the most part of other whole statues and images: and lookewhere any of the members or lims were broken with the fall, a man that saw them would say they were broad holes and huge caues in the ground: for within these fractures and breaches, you shall see monstrous big stones, which the workemen at the first rearing and setting of it had couched artificially within, for to strengthen the colosse, that standing firme and vpright so ballaid, it might checke the violence of wind and weather. Twelue yeares (they say) *Chares* was in making of it before he could fully finish it, & the bare workmanship cost three hundred talents: This mony was raised out of *K. Demetrius* his prouision which he had set by for that purpose, & paid from time to time by his officers, for that he would not himselfe endure to stay so long for the workmanship thereof. Other images there are besides of the nature of colosses in the same citie of Rhodes to the number of one hundred, lesser indeed than the foresaid colosse of the Sun; yet there is not one of them, but for the bignesse were sufficient to giue a name to the place and ennoble it, wherefoeuer it should stand.ouer and aboue, there be in the said citie fise other giant-like images or colosses representing some gods, and those of an huge bignesse, which were of *Bryaxes* his making. Thus much of workemen strangers.

And to come somewhat nearer home: we Italians also haue practised to make such colosses, for surely we may see (and go no further than to the librarie belonging to the temple of *Augustus Caesar* here in Rome) a Tuscan colosse made for *Apollo*, and the same is fiftie foot high from the great toe vward: but the bignesse thereof is not so much as the matter and workmanship: for hard it is to say, whether is more admirable, the beautiful feature of the body, or the exquisite temperature of the metall. Moreover, *Sp. Caruilus* long agoe made the great image of *Iupiter* which standeth in the Capitoll hill, after the Samnites were vanquished in that dangerous war, wherein they bound themselves by a sacred lay and oath to fight it out to the last man, vnder paine of death to as many as seemed to turne backe or once recule; to the making whereof, he tooke the brasse cuiraces, grieues, and morions of the enemies that lay dead and slaine vpon the ground: which is so exceeding bigg and large, that hee may very plainly and euidently bee discouered and seene from the other *Iupiter* in Latium, called therefore *Latianus*.

The powder & dust which the filme made in the workmanship & polishing of this colosse, *Caracillus* himselfe cast again, and thereof made his own image and pourtraiture, and the same standeth (as you may see) at the foot of the other. Within the said Capitoll, there be two brasen heads worthy of admiration, which *P. Lentulus* when he was Consul thought good to dedicate to that place. The one was made by *Chares* the foresaid founder; the other wrought by *Decius*: but this of *Decius* his making compared with the other, cometh so farre short, that one would not take it to be the doing of an artificer that was his crafts-master, but rather of some bungler, prentice, or learner. But to speake indeed of a great image, and that which surpasseth in bignes all the rest of that kinde, looke but vpon the huge and prodigious colosse of *Mercurie*, which *Zenodorus* in our age and within our remembrance, made in France at Auvergne: ten yeares he was about it, and the workmanship came to foure hundred thousand sesterces. Now when hee had made sufficient prooffe of his Art there, *Nero* the Emperour sent for him to come to Rome, where he cast indeed and finished a colosse a hundred and ten foot long, to the similitude and likenesse of the said Emperour, according as it was first appointed, and as he began it: but the said prince being dead and his head laid, dedicated is was to the honour and worship of the Sun, in detestation of that most wicked monster, whose vngriuous acts the city conderaned and abhorred. Certes, I my selfe haue been in that workhouse of *Zenodorus*, where I beheld and considered not onely that great master-patterne in cley of the said colosse, but also another consisting of very small pieces, as branches, which serued as it were for moulds, and the first induction to the worke, as the assay and prooffe thereof. Surely the workmanship of this one statue or colosse, shewed plainly, that the true science & skil of founderie or casting brasie into forms, was cleane decayed and gone; considering that *Nero* was ready and willing to giue siluer and gold enough for the doing thereof artificially and with expedition. *Zenodorus* also himselfe was not thought inferiour to any workman in old time, either for counterfeiting a similitude, or grauing the same: for during the time that he made the statue before said in Auvergne, he counterfeited two drinking cups grauen and chased by the hand of *Calamis*, but belonging to *Vibius Avitus* (the president and gouernor at the same time, of that prouince) which he had receiued of *Cassius Syllanus* his vnckle by the mothers side, tutor and schoolemaster somtime to *Cesar Germanicus*; which prince notwithstanding that he loued them wel, yet hee bestowed them freely vpon his said instructor *Cassius*, whom he loued better: and *Zenodorus* did it so well, that hardly there could be discerned any difference in the workmanship. But to conclude, the more consummat and accomplished that *Zenodorus* was for his skill and cunning, the more evidently it appeareth, that the true Art of founderie was in his time cleane lost, and out of knowledge and practise.

CHAP. VIII.

¶ Of 366 excellent pieces of worke in Brasie, and as many cunning artificers in that kind.

The images and wrought pieces of Brasie, commonly called Corinthian works, many men take such pleasure & delight in, that they loue to carry the same with them whither soeuer they goe: as *Hortensius* the famous orator, who would neuer be without the counterfeits of *Sphinx*, which hee had from *Verres* his client, at what time as he was in trouble and called into question, for his extortions and oppressions in Sicilie: in which triall of *Verres*, wherein *Cicero* was his aduerfariie and accuser, vpon occasion that *Hortensius* who pleaded at the barre against him in the behalfe of *Verres*, among other crosse words that passed betweene, happened to say, That he vnderstood no parables and riddles, and therefore willed him to speake more plainly; *Cicero* made answer readily againe, that by good reason he should be well acquainted with riddles, seeing he had a *Sphinx* at home in his house. Likewise, *Nero* the Emperour had a great fancie to a piece or counterfeits of an Amazon, (wherof I meane to write more hereafter) which by his good will he would neuer be without. And *C. Cestius*, somewhat before *Nero*, a man that in his time had bin Consul, was so addicted to a little image that he had, that it went with him into the campe, yea and he would haue it about him in the very conflict and battell with his enemies. Moreover, *K. Alexander* the Great had four statues or images (by report) which ordinarily were wont and none but they, to support his tent when he lay abroad and kept the field: wherof, twain stand now before the temple of *Mars*: called the Reuenger, & other 2 before the *Palatium*.

As

As touching images, statues, and counterfeits of a lesser size, there are an infinite number of artificers who are ennobled & renowned by them: yet to begin with the image of *Iupiter* made at Olympia, *Phidias* the Athenian (about all other) was of great name therefore, and wrought it was of yvorie & gold together: howbeit many other pieces of brasie there were of his making, which greatly commended the workman, he flourished in the 83 Olympias, and about the yere (after our computation at Rome) 300. And at the same time there liued those concurrents of his who endeauoured to match him, to wit, *Alcamenes*, *Critias*, *Nesicles*, and *Hegias*. After these, and namely in the 87 Olympias, there succeeded and had their time, *Agelades*, *Callon*, *Polyclethus*, *Phragmon*, *Gorgias*, *Lacon*, *Myron*, *Pythagoras*, *Scopas*, and *Perelins*: of which, *Polyclethus* brought vp diuers braue and worthy apprentices, and by name, *Argisus*, *Asapodorus*, *Alexis*, *Aristides*, *Phrynon*, *Pyron*, *Athenodorus*, *Dameas* of Clitorea, & *Myron* the Lycian. In the 95 Olympias there flourished *Nausicles*, *Dinomedes*, *Canochus*, and *Patrocles*. In the 102 Olympias there came in place, *Polycles*, *Cephisodorus*, *Leochares*, and *Hypatodorus*. In the 104 liued *Lyfippus*, at what time also *K. Alexander* the Great flourished: likewise *Lyfistratus* and his brother *Sthenis*, *Euphronides*, *Sofratus*, *Iön*, and *Silanius*: of which *Silanius* this is wonderfull, that hauing no master at all to reach and instruct him in the art, yet he became himselfe so excellent, that he brought vp vnder him, *Zeuxis* and *Pamades*. In the 120 Olympias, *Eutychides*, *Euthycrates*, *Labippus*, *Sephisodorus*, *Tymarchus*, and *Pyromachus* were famous artificers for the time. Then lay the art asleepe and as it were dead for a while, vntill such time as about the 155 Olympias it seemed to reuiue and awaken again; & then there arose *Antheus*, *Callistratus*, *Polycles*, *Athenaus*, *Callixenus*, *Pythocles*, *Pythias*, and *Timocles*, indifferent good workemen, but nothing comparable to the other before named. Thus hauing ranged the most famous Artificers distinctly according to their severall Ages, I will runne ouer them againe, as many I meane as excell the rest: and yet howsoeuer I make haste, I will not ouerpasse the multitude of others, but interlard (as it were) and disperse them among, as occasion shal be offered.

In the first place this is to be vnderstood, that the principal and singular of all these founders came in question (notwithstanding they liued in sundry ages) which of them should be esteemed chiefe, by reason of diuers Amasons wrought by their hands: for when these images should be dedicated in the temple of *Diana* in Ephesus, it was thought good to make choise of one that should be deemed & approved best, by the iudgment of those workmen who then liued & were present: for plaine it was, that the image whom they all iudged to be next and second to their own, the same was simply best, and so to be reputed. This principal Amazon hapned to be of *Polyclethus* his making: in a second degree was the Amazon made by *Phidias*: that of *Ctefias* was counted the third; of *Cydon* the fourth, & in a fift place was reckned the workmanship of *Phragmon*. As for *Phidias*, besides the *Iupiter Olympius* of his making, (wherin no man seeketh to come neere vnto him) he made likewise *Minerva* of iuorie at Athens, which standeth there in the temple *Parthenon*. But ouer and aboue the foresaid Amazon, there was of his workmanship *Minerva* in brasie, so faire and beautifull, that of her beauty she tooke the surname [*Kallimorphos*]. Of his doing was the image called * *Cliduchos*, and another of *Minerva*, which *Emilius Paulus* dedicated at Rome in the temple of *Fortuna huiusce dici*, i. Of the daies of Fortune. Also two other statues or images portraied in clokes or mantles, were his handiwork, which *Catulus* set vp in the same temple: likewise another after the maner of a colossus or gyant all naked. In sum, he was deemed and that iustly, to haue bin the first that deuised and taught the skil of chasing & embossing. As for *Polyclethus* the Sicyonian, who learned his cunning vnder *Agelades*, hee it was that made in brasie *Diadumenus* an effeminate yong man looking wantonly, with a diadem or wreath about his head, a piece of work of great account, & much spoke of, for that it cost 100 talents: and of his making was *Doryphorus*, a yong boy with a manly countenance, hauing a speare in his hand. Moreover, he made that which workmen call Canon, that is to say, one absolute piece of worke, from whence artificers do fetch their draughts, simetries, and proportions, as from a perfect patterne or rule which guideth and directeth them in their worke: so as wee may well and truly iudge, That *Polyclethus* alone reduced the skill of Founderie and imagerie into an Art and method, as may appeare both by that Canon, and by other workes which passed through his hands. Of his workmanship was the brasen image, representing one scraping and rubbing himselfe in the bath or hot-house: as also another all naked, and * challenging to the dice. Item, two boyes both naked playing at dice, which thereupon be called *Astragalizontes*. And these remaine

V u 3

* Talo incessanter some read, tulo incessanter

main to be seen in the court or portall belonging to the house of *Titus* the Emperor, which is so exquisite a piece of worke, that many doe iudge there cannot be set another to it more absolute and perfect: also he it was which wrought the image of *Mercury* which is at *Lyfimachia*: of *Hercules* at Rome, and namely how hee heaved and held vp *Anteus* from the ground between heauen and earth: and the counterfeite of *Artemon*, that effeminate and wanton person, who because hee was ordinarily carried in a Litter, men called *Poryphoretos*. This *Polycles* was iudged to haue brought this art of Imagery to a consummat perfection; the feat also of ingrauing & imbossing he was thought to practise and promote, like as *Phidias* before him opened the way to it & gaue instructions. This proper and special gift he had besides about all other, to deuise how Images might stand vpon one leg: and yet *Varro* saith, that all the Images of his making be four square, and all in manner after one pattern.

To come vnto *Myro*, born he was at *Eleutheræ*, and an apprentice likewise to *Agelades*: the piece of worke that brought him into name and made him famous, was an heifer of brasse; by reason that diuers Poets haue in their verses highly praised it, and spread the singularity of it abroad: for so it falls out otherwhiles, that many men are commended by the wit of others, more than by their own. Other pieces of work there were of his besides, to wit, a dog, a coit-caster (or one hurling a stone or weight of lead) *Perseus* [killing *Medusa*] fawyers called *Pristæ*, a Satyre wondring at a pipe or flute, and the goddesse *Minerva*: moreover, the Delphick Pentathli, & the *Pancratiastæ*: furthermore, that image of *Hercules* which standeth in the temple that *Pompey* erected neere the greatest cirque or shew-place, is the handiwork of *Myro*. Besides (as it appeares by the poesie of *Erinna* the Poëtesse) hee it was that made the tombe or monument in brasse of a poore grasshopper and a locust; the image likewise of *Apollo*, which (after that *Antoni* the Triumvir had wrongfully taken from the Ephesians) *Augustus Caesar* restored againe vnto them, being warned so to do by a vision appearing vnto him in his sleep, was of *Myro* his making. This workman seems to haue bin the first that wrought not his images after one sort, but altered his work after many fashions, as being fuller of inuention, and giuen more to deuise in his art, more curious also and precise in his symetries and proportions, than *Polycles*: and yet as exquisite as he was, he went no farther than to the outward linements of the body and members thereof; as for the inward affections of the mind he did not expresse in any of his work: the haire also as well of head, beard, as share, he left after a grosse maner, & wrought them no finer than the rude and vnexpert workmen in old time had either done or taught. No maruel therefore if *Pythagoras* the Imageur of Rhegium in Italy went beyond him in this feat, and namely in that piece of worke of his which resembled a wrestler or *Pancratiastes*, which was dedicated in the temple of *Apollo* at Delphos. He came short also of *Leontius*, who expresse liuely in brasse, *Astylus* the famous runner in a race; which image is shewed for a rare piece of work in Olympia: also the boy *Libys*, which is to be seen in the same place, holding in his hand a little table, and withall carrying apples, stark naked. He made also the pourtraiture of one that seemed lame and to halt, vpon an vicer; but the same is so liuely and naturally done, that as many as behold the same seeme to haue a compassion and fellow-feeling with him of some pain and grievance of his fore; and this piece of work a man may see at *Syracusa*. Furthermore, the said *Leontius* cast in brasse one *Apollo* playing vpon his harpe: as also another *Apollo*, and the serpent killed with his arrowes; which image he surnamed *Dicaeus*, i. Iust: for that when the city of Thebes was won by *Alexander* the Great, the gold which he hid in the bosome thereof when hee fled, was found there safe and not diminished, when the enemy was gon and he returned. Hee was the first that in his images expresse the sinues and veines lying vnder the skinne: hee it was also that couched and layd the haire of the forehead more handsomely, yea and wrought the same farre more finely than any before him.

* or rather *Pavus*, of *Tarot*.

* *Huic* sic dicit.

Now besides *Pythagoras* before mentioned, there was another a * Samian both, who by occupation was at the beginning a painter: of his handiwork are those 7 images halfe naked, which are to be seen in the Temple of * This daies *Fortune* at Rome; and one resembling an old man: all highly commended for singular art. This *Pythagoras* was so like vnto the other about named, especially in face and countenance, that hardly (by report) one of them could be knowne from the other. As touching *Sofratus*, it is said he was apprentice to *Pythagoras* of Rhegium, and his sisters son besides. As for *Lyfippus* of Sicyone, *Durus* saith, That he learned the art by himselfe, and neuer was taught by other. But *Tullius* affirmeth, That hee was an Apprentice vnto it, and

hauing

hauing bin at first by occupation a poore tinker or a plain brasier and coppersmith at the most, he began to take heart vnto him and to proceed further, by a speech or answer that *Eupompus* the painter gaue him: for when he seemed to ask this painters counsel, what pattern and whom he were best to follow of all those workmen that were gon before him? hee shewed vnto him a multitude of people, and said withall, That he should do best to imitate Nature her self, and no one artificer: and that was it (quoth he) which I meant by the former demonstration of so many men. And verily, so excellent a workman he proued in the end, that he left behind him the most pieces of any man (as I haue said before) and those of all sorts, and fullest of art and good workmanship: and among the rest, the image of a man, currying, rubbing, and scraping the sweat and filth off his own body, which *M. Agrippa* caused to be set before his own bairns: and the Emperor *Tiberius Caesar* took so great pleasure in it, that notwithstanding at his first coming to the crown he knew well enough how to command and temper his own affections, yet he could not now rule himselfe, but would needs haue the said image to be removed from thence, into his own bed-chamber, and another to be set in the place of it: wherat the common people (see their contumacie and frowardnesse!) were so much offended and displeased, that they rested not with open mouth to exclaim vpon him in all their theatres, when they met there together, and cried to haue their *Apoxymenos* set again in the own place: inso much as the Emperor was content so to do, notwithstanding he loued it so well. This *Lyfippus* also won great credit and commendation by another image that he made, representing a woman piping or playing vpon the flute; and drunken withall: also by a kennell of hounds, together with the huntman and all belonging to the game. But about all, he got the greatest name for making in brasse a chariot drawne with foure steeds, together with the image of the Sun, so much honored among the Rhodians. The personage of King *Alexander* the Great hee likewise expresse in brasse, and many images he made of him, beginning at the very childhood of the said Prince: and verily the Emperor *Nero* was so greatly enamoured vpon one image of *Alexander*, that hee commanded it to be gilded all ouer; but afterwards, seeing that the more cost was bestowed vpon it by laying on gold, the lesse was the art seen of the first workman, so that it lost all the beauty and grace that it had by that means, he caused the gold to be taken off againe: and verily the said image thus vngilded as it was, seemed far more pretious than it was whilst it stood so enriched with gold; notwithstanding all the hacks, cuts, gashes, and rases all ouer the body wherein the gold did thicke, remained still, which in some sort might disfigure it. Of this mans making was the statue of *Hephestion*, a great fauorite and minion of *Alexander* the Great; and yet some ascribed this piece of worke vnto *Polycles*; whereas in truth he liued almost an hundred yeres before the said *Hephestion*. He counterfeited also *Alexander* the Great how hee rode a hunting, with his hounds and all things belonging to the chace; and this Worke of his resembling hunting, was thought worthy to be consecrated in the temple of *Apollo* at Delphi. At Athens he made a troupe of Satyrs. As for *Alexander* himselfe, with all his principall courtiers and friends about him, he resembled in brasse most liuely. All these pieces of his workmanship before rehearsed were transported to Rome by *Metellus*, after the subduing and conquest of Macedonie. Finally, Coaches drawne with foure horses, he made of many sorts and fashions, all in brasse. And in a word, the art of founderie and imagerie was brought to far greater perfection by this Artificer, as it was thought; for hee expresse the very haire of the head as fine and small as Nature made them. The heads to the images of his making were nothing so big in proportion to the rest of the body as they were in old time: his images shewed not so great and corpulent, but more lank, slender, and lean; as wel to expresse the knitting of joints, the ribs, veines, and sinues the better, as to cause them also to seem the taller. The Symmetrie, which about all things hee obserued most precisely in all his workes, is a terme that cannot properly bee expressed by a Latine word. A new deuice he had that neuer before him any practised, and that was, to make his images of a quarry and square stature, as the Antients before his time did: for an ordinary speech it was of his, That in times past men were made plain, such as they were; but he made them as they would seem to be. Finally, it seemeth, that this singular gift he had about all others in all his workes, to shew finenesse and subtiltie, which hee obserued most curiously in the smallest things that passed vnder his hand. When he died, he left behind him three sonnes, which also were his apprentices: of whom, *Labippus* and *Bedas* were passing good Workemen, and very well regarded; but *Enthyocrates* his third sonne ouerwent his brethren. Although I must needs say, That hee

loued

was the workman, who cast in brasse the full proportion and similitude of *Protesilaus*, and of *Pythodorus* the famous wrestler. *Alexander*, otherwise called *Paris*, was of *Euphranor* his making: The excellent art and workmanship wherof was seen in this, that it represented vnto the eie all at once, a iudge between the goddesses, the louer of *Helena*, and yet the murtherer of *Achilles*. The image of that *Minerva* at Rome, which is called *Catulliana*, came out of this mans shop: and it is the same which was dedicated and set vp beneath the Capitoll by *Quintus Lutatius Catulus*, whereupon it tooke that name. Moreouer, the image that signifieth good lucke or happie success, carying in the right hand a boule or drinking cup, in the left an eare of corne and a Poppy head, was his handie worke. Like as the princeesse or ladie *Latona*, newly deliuered of *Apollo* and *Diana*, holding these her two babes in her armes: and this is that *Latona* which you see in the church of *Concordia* in Rome. He made besides many chariots, drawne as well with foure as two horses: as also a key-bearer or *Cliduchus*, of incomparable beautie. Semblably two other statues, resembling Vertue and Vice, both which were of an extraordinary stature and bignes, gyant-like, in manner of Colosses. He made besides a woman ministring, and yet worshiping withall. Item King *Alexander* the Great, and King *Philip* his father, riding both in chariots drawne with foure horses. *Eutychidis* a renowned imageur, represented the riuer *Eurotas* in brasse: and many men that saw this worke, were wont to say, That the water ran not so cleare in that riuer, as art and cunning did appeare in this workmanship. *Hegyas* the imageur made *Minerva* and King *Pyrrhus*, which be much praised for the art of the maker: likewise boies praefising to ride on horsebacke: the images also of *Castor* and *Pollux*, which stand before the temple of thundring *Jupiter* in Rome. In the colonie or city *Parium*, there is an excellent statue of *Hercules*, the handy worke of *Isidorus*. *Buthyrcus* the Lycian was taught his cunning by *Myron*, who among many other pieces, beseeeming the apprentise of such a master, deuised in brasse to represent a boy blowing at a fire halfe out: and he it was that cast in the same mettall the famous *Argonautes*, in that voyage to *Colchos*.

Leocreas made the *Egle* that rauished *Ganymede*, and flew away with him, but so artificially, as if she knowing what a fine & dainty boy she had in charge, and to whom she caried him, clapped the child so tenderly, that she forbore with her rallions to pierce through the very cloths. The boy *Antolikos* also, winning the prize in all games and feats of actiuitie, was of his making; for whose sake *Xenophon* wrote his booke entituled *Symposion*: likewise that noble image of *Jupiter* in the Capitoll of Rome, surnamed *Thundering*, which is commended aboue all others: as also *Apollo*, with a crowne or diademe.

Lyciscus counterfeited *Lago* a boy, who in maner of a page or lacquey, seemed to be double diligent, & after a flattering and deceitfull sort performed nothing but eie-seruice. *Lycus* also made another boy blowing the coales for to maintain fire. *Menechmus* deuised to cast in brasse a calfe, turning vp the neck & head at the man that setteth his knee vpon his sides, and keepe his body down. This *Menechmus* was a singular imageur, and himself wrote a booke as concerning his own art. *Naucides* was iudged to be an excellent workman, by the making of *Mercury*, & of a discobole or coiteras also for counterfeiting in brasse one that was a sacrificing or killing a ram. *Naucerus* woon credit by making of a wrestler, puffing & blowing for wind. *Nicerates* had the name for the curious workmanship of *Aesculapius* and *Hygia*, which are to be seen at Rome within the temple of *Concord*. *Pyromachus* got great reputation by a coach drawn with four steeds, & sculped by *Alcibiades* the coachman, all of his making. *Policles* was the maker of that noble piece of work that goeth vnder the name of *Hermaphroditus*. *Pyrrhus* counterfeited in brasse another *Hygia* & *Minerva*. And *Phenix* who learned his art of *Lysippus*, liuely counterfeited the famous wrestler *Epitherses*. *Stipax* the Cyprian got himselfe a name by an image resembling one *Splanchnoptes*: This was a pretty boy or page belonging to *Pericles*, surnamed *Olympius*, whom *Stipax* made frying & roasting the inwards of a beast at the fire, puffing and blowing therat with his mouth full of breath and wind for to make it burne. *Silanion* did cast the similitude of *Apollodorus* in brasse, who likewise was himselfe a founder and imageur, but of all other most curious and precise in his art, he neuer thought a thing of his owne making well done, and no man censured his worke so hardly as himselfe: many a time when he had finished an excellent piece of work, he would in a milke vnto it, pass it in pieces, and neuer stood contented and satisfied with any thing when it was all done, how ful of art soeuer it was, and therefore he was surnamed *Mad*: Which furious passion of his, when *Silanion* aforesaid would expresse, he made not the man himselfe alone of brasse, but

* i. Good;
health.

the very image of Anger and Wrath also with him, in habit of a woman.ouer and besides, the noble *Achilles* was of his making, a piece of worke well accepted and much talked of. Of his doing is *Epistates*, teaching men how to wrestle and exercise other feats of actiuitie. As for *Strongylion*, he made one of the Amazons, which for an excellent fine and proper leg that he had, they call *Eucnemus*; and in that regard *Nero* the Emperour set so great store by this image, that it was carried ordinarily wherefoeuer he went. This artificer made likewise another brasse image resembling a faire and sweet boy, which for the singular beautie *Brutus* of *Philippo* so loued, that it was commonly called by his surname *Philippensis*.

Theodorus who made the Maze or Labyrinth at *Samos*, caused his own image to bee cast in brasse, which besides the wonderfull neere resemblance and likenesse to himselfe, was contriued so artificially besides, and so set out with other fine deuises, that he was much renowned for the workmanship, and in the sight of all men it was admirable: he carrieth yet in his right hand a file, and in his left hand he bare sometime (with three fingers) a little pretty coach, and the same with four horses at it, which was afterwards taken from the rest, and had away to *Præneste*: but both the coach, the teeme of horses, and the coachman were couched in so small a roome, that a little flie (which also he deuised to be made to the rest) covered all with her pretie wings.

Xenocrates was apprentise to *Tiferates*, or as some say, to *Euthyrcrates*; but whether of the twaine foerer was his master, he outwent them both in the number of statues and images that he wrought, and besides compiled bookes of his owne art and workmanship.

Many artificers there were, that by imagerie delighted to counterfeit in brasse the battailes that king *Attalus* and *Eumenes* both, fought against the *Galatians* or *Gallogreekes*; and namely, *Ligonus*, *Pyromachus*, *Stratonicus*, and *Antigonus*, and this artificer last named, composed bookes also of his own art. *Boethius*, although he was a better workman in siluer, yet one piece of worke he made in brasse, which had an excellent grace, and that was a child throttling a Goose by the necke.

Of all these pieces of antique worke which I haue reckoned vp, the most choise and singular aboue the rest, *Nero* before time had by his violent edicts and commandements caused to bee brought from all parts to Rome, and he disposed them in diuerse roomes of his golden house for to adorne and beautifie the same; but now they be consecrated by *Vespasian* the Emperour, in the temple of Peace, and in other stately buildings and edifices of his.

Many other excellent artificers there are besides these aboue rehearsed: but they may be all ranged in one ranke, and counted for their skill and cunning equal, for a man shall not find one piece of worke of their making, that carrieth any singularity aboue the rest, and namely *Ariston*, who also was wont to graue and chafe in siluer, *Callias*, *Clephas*, *Cantharus* of *Sicyone*, *Dionysius*, who was an apprentise trained vp vnder *Critias*, *Deliaides*, *Euphorion*, *Eumicus*, and *Hecateus*. As touching famous engrauers in siluer, I read of *Lesboles*, *Prodorus*, *Pithodius*, and *Polygnatus*, who also were most excellent and renowned painters. Likewise, of siluer smiths or grauers in siluer, we haue *Stratonicus*, and *Scymnus*, who had for his master *Critias*.

Now will I reckon vp those worthy and famous Imageurs, who employed themselves in one and the same kind of workes. In the first place, *Apollodorus*, *Androbulus*, *Astelepiodorus*, and *Alcetas*. He tooke pleasure to expresse the similitudes of learned men & Philosophers. As for *Apelles*, he delighted besides to represent women at their deuotions, adoring the gods, and offering sacrifices. *Antigonus* had a grace likewise to represent one currying and scraping his skin al ouer the body to haue in their shops the statues of great ladies and noblewomen. *Aristodemos* tooke much pleasure to busie himselfe about the portraying of wrestlers, coaches with two horses for thereto, and a coachman, Philosophers and great clearkes, old matrons, and king *Selenus*: There is also of his making a *Doryphorus*, resembling one of *Darius* his guard, which is a proper piece of worke & a louely. As touching the *Cephistodori* (for two of them there were) the elder had a great dexterity in making *Mercurie* fostering prince *Bacchus* in his infancie: He made also one, preaching to the people, and casting forth his armes; but what person of quality he should be, it is not certainly knowne: the younger was wont to represent the Philosophers. *Colothas*, who joined with *Phidias* in the making of *Jupiter Olympius*: He delighted also to be doing with the images of Philosophers. So did *Cleon* and *Cenchramis*, *Callicles*, and *Cephis*. As for *Calcothentus*, he busied and amused himselfe in the counterfeits of *Comedians*, players of enterludes, and champions. *Dahipus*

*. erizomenos
the same that
Apollonemeron.

hippus had a very good hand, in making one scraping and rubbing his body in an hot-house. *G Daiphron*, *Democritus*, and *Damon*, were as cunning and perfect in the personages of Philosophers and Sages. *Epigonus* would haue his hand in all those works in manner which I haue rehearsed, and laboured to imitate those artificers: but he surpassed them all in a Trumpetter of his owne devising, and a little infant, who seeing the mother slaine, made toward the dead corps, and hung about it as if it would play and be plaied withall, full pittiously to behold. *Eubolides* made one, as if he were counting vpon his fingers. *Mycon* his cunning was most seen in the counterfeiting of wrestlers and such as practise feats of actiuitie: and *Menogenes*, in making chariots with foure horses. *Niceratus* likewise enterprised all maner of works wherein others were best seen: and besides represented the personage of *Alcibiades*, together with his mother *Demarete*, as shee sacrificed with lampe light burning by her. *Pisicrates* shewed much skill with a chariot of two horses, wherein he bestowed * *Pitho* sitting in the habit of a woman: The images *Mars* and *Mercurie* also, which stand at Rome in the temple of *Concordia*, be of this mans making. As for *Perillus*, there is no man commendeth him for his workmanship, but holdeth him more cruell than *Phalaris* the Tyrant, who set him a work, for that he deuised a brasen Bull, to roast & frie condemned persons in, assuring the Tyrant, that after the fire was made vnder it, they would when they cried seeme to bellow like a Bull, & so rather make sport than moue compassion: but this *Perillus* was the first himselfe that gaue the handsell to the engine of his own inuention, & although this was cruelty in the Tyrant, yet surely such a workman deserued no better a reward, & justly he felt the smart of it: For why? The art and cunning foundery, which of all others is most ciuile & agreeable to our nature, and which had bene employed ordinarily in representing the personages of men and gods, this monster of men abused, and debased to this vile and vnnatural ministry of tormenting man. Would one haue euer thought, that after so many witty & worthy men who had trauelled in this science to bring it to some perfection, all their labours should turne in the end to this prooue, for to make instruments thereby of torture? And certes, there being many pieces of his workmanship, they be kept and faued for this cause onely, that as many as see the same, may detest and abhor the wicked hand that made them. But to proceed forward to other workmen in this kinde. Of *Sthenis* making are the images of *Ceres*, *Iupiter* and *Minerva*, which at Rome are within the temple of *Concord*. The same man took pleasure in counterfeiting ancient dames and matrons, weeping, praying, and offering sacrifice. *Simon* [of *Aegina*] was very good at the making of a dog and an archer. *Stratonicus* that famous cutter and engrauer, was neuer well but when he portraied some Philosopher or other: no more than *Scopas*, both the one and the other. As for wrestlers and champions, armed men, hunters, and sacrificers, they were the onely workes that these artificers following delighted most in, to wit, *Batten*, *Eucher*, *Glaucides*, *Heliodorus*, *Hicanius*, *Leophon*, *Lyson*, *Leon*, *Menodorus*, *Myagrinus*, *Polycrates*, *Polydorus*, *Pythocritus*, and *Protogenes* (who also was a most excellent & renowned painter, as I will hereafter shew more at large) also *Patrocles*, *Polis*, *Posidonius* born at Ephesus, who likewise chased and engraued in siluer most finely, *Periclimenus*, *Philon*, *Simenus*, *Timotheus*, *Theomnestus*, *Timarchides*, *Timon*, *Tisias*, and *Tibrason*. But aboue all other, *Callimachus* is the workman of greatest note, in regard of a by-name giuen vnto him, and that was *Cacizotechnos*: and well he might be so called, for hee would alwaies be finding fault with his own workmanship, & neuer could see when to make an end, thinking still that he had not bestowed art ynough vpon that he had vnder his hand. And so he brought forth little or nothing perfect in the end: A notable and memorable example to teach all men not to be ouer curious and exquisite in any thing, but to hold a measure in all. And there is a dauce of Lacedemonian women of his making: a piece of work which he went about also to amend, and when he thought to make it better, he marred it clean, so that it lost all the grace it had before. Some say, that this *Callimachus* had bin in former time a painter. And since I haue entred so far into this Treatise of statues & images, I may not passe ouer in silence, but note (as it were) by the way one thing of *Cato*, although haply it may be thought but a meere vanity: In that expedition or voiage wherein Cyprus was conquered and reduced vnder the dominion of Rome, hee made port-faile of al the pillage taken there, saue only one statue of *Zeno*, not for the excellencie of the matter, for it was but brasse, nor yet for the art and curious workmanship thereof, but for that it was the image of a Philosopher. In this discourse of statues and images, I must not passe by one, although it is not certainly known who was the maker of it, and this is *Hercules* in his shirt and other habit that he wore vpon the mount *Oete*: standing now at Rome neere vnto the publicke pulpit

* *Snada*, i. Per-
suasio, or *Diana*
as some think.
Some read *Pi-
tho*, the god-
desse of Cre-
dulitie.

pulpit called *Rostrum*: Made he is (whosoever did it) with a grim, sterne, and fower countenance, and such indeed as doth bewray and feel those intollerable torments which the body sustained by that poisoned shirt [sent to him from *Deianira*.] Vpon this statue there stand 3 titles or inscriptions: the first is this; *L. Luculli Imperatoris de Manubius*, i. *L. Lucullus* Lord Generall, erected this statue out of the spoile of the enemies: the second, *Pupillus Luculli filius ex S. C. dedicauit*, i. The son of *L. Lucullus*, being orphan or ward, dedicated this, by an order or act from the Senat: the third, *T. Septimius Sabinus Aedile Curulis, ex priuato in publicum restituit*, i. *T. Septimius Sabinus*, Aedile Curule for the time being, hath from a priuat house caused it to stand againe in publick place. This is the image of that worthy *Hercules* that fought so many battels, indured such hard conflicts and labors, and was so highly honored.

Now is it time to return to the different kinds and sundry temperatures of brasse, from which I haue digressed: first and foremost therefore this is to be noted, That in Cyprian brasse or copper there is to be considered, one sort which is named *Coronarium*, and the other that they call *Regulare*; and both the one and the other will abide the hammer & be brought into thin plates. As for the *Coronarium* or *Laton*, when it is reduced into thin leaues or plates, and then coloured or rubbed ouer with the gal of an oxe, it looketh like gold, and maketh a faire shew in those coronets that plaiers weare; whereupon it tooke the name *Coronarium*: the same, after that to euery ounce of it there be put six scruples of gold, and be reduced into a very thin foile, resembling the color of fire, like a rubie or carbuncle stone. As touching this brasse, it is found also in other mines of mettall, like as the pot-brasse *Caldarium*: this only is the difference, that this *Caldarium* will melt only, for vnder the hammer it will break; whereas the other sort of copper named *Regulare*, yeeldeth to the hammer and will be drawne out, whereupon some there be who call it *Ductile*, battable; and such is all the kind of copper or Cyprian brasse. That also which is found in the mines of other mettalls, by art refined, differeth from the foresaid pot-mettall, for out of what mine soeuer it commeth, after that the drosse & imperfections thereof be thoroughly purged by the fire, being thus (I say) clenfed, it becommeth *Regulare* and wil abide the hammer. As for all other sorts besides the Cyprian brasse aboue named, the *Campane* brasse is counted best: like to which, there is much in other parts also of Italy, and in the prouinces: but to e-uery [hundred pound of brasse] they put 8 pound of lead: then they boile it as it were and melt it again with a soft fire, for want and scarcitie of wood and fuell. And what difference there may be in that regard, it is most of all seen in the heart of France, where it is commonly melted (for lack of other fuel) among stones made red hot: for by reason that this is a swift & scorching fire, it becommeth black and brittle withall: besides, they melt it but once: but surely to doe so oftner, maketh very much for the goodnesse thereof.

CHAP. IX.

¶ The difference in Brasse: the diuers mixtures thereof: and how Brasse should be kept.

Moreouer, it were not amisse to note thus much also, that all kind of brasse melteth best in coldest weather. Now there is another temperature of brasse which serueth for founders, imageurs, and brasen tables, called thereupon in Latine, *Statuaria* and *Tabularis*, which is made in this manner following: first, the masse, ore, or stone as it commeth out of the mine, is melted in the bloome-smithie, and so soone as it is melted, they put thereto a third part of the brasse *Colletaneum*, that is to say, broken pieces of old vessels that haue bin vsed, and bought vp here and there. In the choice whereof, this care would be had, that for to giue vnto this temperature the kind seasoning as it were, which peculiarly it requireth, there would be gotten such pottain or old mettall which is ouerworne, and by ordinary occupying and vsing to the hand, bright-shining, and as one would say tamed, made gentle, and pliable. It would not be forgot-ten also, to euery 100 pound weight of the said melted ore, to mix 12 pound and a halfe of Tin. But to haue a kinde of Brasse mettall that is most tender and soft, there must bee giuen vnto it that mixture or temperature which is called *Formall*, namely, by putting thereto of ordinarie lead a tenth part, and of Tin a twentieth part; and by that means especially it taketh that colour which they call *Grecanicke*. The last temperature is that, which in Latine they call *Ollaria*, as one would say, the pot-brasse, for it taketh the name of that vessell whereto it is most employed; and

and this is by tempering with euery hundred pound weight of brasse, 3 or four pound weight of argentine lead or tin. To Cyprian brasse or copper, if you put lead, you shall haue that deep red or purple colour which giueth the tincture to the robes that statues are pourtraied with. Moreover, this is to be noted, that the more you do scour any vessels of brasse, the more are they subiect to rust, and sooner will they gather it, than if they were neglected and not meddled withall; vnlesse they be well annointed with oile. It is said, that a vernish made of tarre, is singular for to preserue and saue any brasse from rust. To conclude, brasse hath serued many a yeare ago, for the perpetuity of memorials and registers, as we may see by those brassen tables here in Rome, wherein be cut and ingrauen all our publick laws and constitutions.

CHAP. X.

¶ Of Cadmia or Brasse ore, and the medicines wherein it is usually employed.

THe mines and veins of brasse ore do many waies furnish vs with medicines: a good proofe whereof this may be, that any vlcers be soonest healed there: but the most medicinable of all minerals that belong to brasse mettall, is Cadmia [artificial.] And verily there is a kind of Cadmia made in the furnaces where siluer is fined, of a whiter colour and lesse ponderous, but nothing comparable to that which commeth from the brasse furnaces. And sundry sorts there be of Cadmia: for the very stone of which they make brasse, is called Cadmia, and as it is necessary for founders, so it is of no vse at all in Physick. Now is there a Cadmia besides which is made in the furnaces, and so called, but the reason thereof is far different: and this kinde of Cadmia commeth of the finest and thinnest part of the ore or matter in the furnace, cast vp aloft by the flame & blast, sticking to the roofo or sides of the furnace, higher or lower according to the proportion of the lightnesse that it carrieth, more or lesse. The finest and the floure as it were of Cadmia, is found in the very mouth of the furnace, whereas the flames * do strue to get forth; the Greeks call it Capnitis, for that it is smokie and burnt, and for the exceeding leuity thereof resemble flying cinders. That which is more inward and hangeth downe from the coping and vaulted roofo of the furnace, is the best: and in that respect, because it hangeth so as it were by clusters, they giue it the name Botrytis: heauier this than the former, but lighter than those that follow after. As for the colour thereof, it is in two sorts: that which you see of a dead hew like ashes is the worse, whereas the red is the better; the same also is brittle and will soone crumble small: for eie-salues and collyries reputed soueraign. A third kind of Cadmia sticketh by the way, to the sides and wals of the furnace; for by reason of the heauinesse and ponderosity, it was not able to mount vp to the bending roofo of the furnace: this the Greeks call Placitis: and well it may be so named; for a crust rather it is than a scaly substance: break it, you shal find many colours in it: and this Cadmia for to heale scabs and scurfe; as also to cicatrice or skin a fore, is better than the former. Out of this kinde, there proceed other twaine; to wit, Onychitis, which in the outside is after a sort blewish, but within, it resembleth the flecks or spots of the onyx stone; and Ostracitis, blacke throughout, of all the rest most foule and grosse, howbeit, fittest for wounds.

Generally, that Cadmia, of what kinde soeuer, is best, which is found within the furnaces of Cyprus: this the Physitians doe burne a second time with pure coles; and when it is calcined and turned to ashes, they quench it with Ammian wine, if they meane to prepare it for plasters; but with vinegar, for scabs and scurfe. Some there be, who after it is stamped grosse, burne or calcine it in an earthen pot, then wash it well in a mortar, and afterwards dry it. *Nymphedorus* taketh the very stone or the ore as it lieth in the mine, the heauiest and most compact that may be found, which he burneth among coles; and after it is sufficiently burnt, quencheth it in wine of Chios: he beareth and punneth it then again, anon he driueth or bouldeth it through a linnen cloth, and grindeth it finer in a mortar: this done, soon after he steepeth and soketh it wel in rain water, and that which setleth in the bottom he stampeth: and this he doth, vntill such time as it be like ceruse or white lead, and wil not crash between the teeth. The same maner of preparing vseth *Tollas*, but he chuseth the purest and brightest stone that he can get.

The medicinable operations of Cadmia, bee, to drie, to heale thoroughly, to stay fluxes, to cleanse the filthinesse in the eyes, and to scour the pin and web, to extenuate any roughnesse; and

And in one word, to worke all those effects which I shall attribute hereafter to Lead.

Furthermore, brasse it selfe may be burnt, and being so prepared, it serueth for all those purposes before named: ouer and above, it cureth the pearls, films, and skars in the eies: if it be incorporat with milk, it healeth the vlcers in the eies: the same likewise they vse to grinde vpon hard stones, after the manner of the Egyptian collyrie; taken as a lobeck inwardly with hony, it causeth vomit. Now as touching copper, the manner is to burn it in vnbacked earthen pans, with the like weight of brimstone; but all the breathing holes of the furnace ought to be well closed and luted vp where they must stand, vntill such time as the said pans be thoroughly baked hard: some put salt thereto: others in stead of brimstone take alumne; and there be againe, who vse neither the one nor the other, but sprinkle it well with vineger onely: when it is thus calcined, they pun it in a mortar of Thebaick marble, and then wash it in rain water. Howbeit, this first lotion of it maketh it but weak and of small effect: and therefore it had need of a second washing, in a greater quantity of water, and to be braied againe therein, and left so standing vntill it be settled: this would be reiterated often, vntill such time as it be brought to looke like vnto Minium: after that, it ought to be dried in the Sun, and saued in a brassen box.

CHAP. XI.

¶ Of the drosse or refuse of Brasse: of the skales of Brasse: of Verdegreece or Spanish greene: of Stomoma: of Verdegreece which is the rust of Brasse, and of Hieracium.

THe drosse of Brasse is washed after the same manner, but of lesse effect it is than Brasse it selfe: howbeit the floure of Brasse or verdegreece, is much vsed in Physick: and engendred it is, when Brasse is melted by much blowing, and then transferred out of the furnace into other receptacles, and there, are shaken out certain skales of miller, and this they call Flos æris: Verdegreece. Now these skales vse to fall off, when as the masses of brasse be cooled with water and be red. Likewise of the same masses, there is made that which they call Lepis; and thus the verdegreece may be sophisticated, so as the said Lepis or skales be sold for it: Now these skales come, by being driuen & smitten off from those nails which they vse to forge of the said masses and lumps of brasse, and all these most commonly are found in the Cyprian forges: herein only is the difference, that the foresaid skales are driuen forcibly & smitten from the said pains or masses of brasse, whereas the floure of verdegreece falls off by it selfe. And yet there is a second kind of these skales more fine and subtil than the other, to wit, driuen and smitten from the very outside and vppermost part of the brasse, and this they call * Stomoma.

Howbeit, Physitians in these daies (with reuerence to their profession and with their good leaue be it spoken) are ignorant wholly of all these things; yea, and the greater part of them bee not so much as acquainted with the terms and bare names (so far be they from the true composition of medicines:) and yet in times past, it belonged properly vnto Physitians, for to be acquainted with the terms of all simples, and to be perfect in the knowledg of them. But our physitians in this age, when they are to make any composition of simples, they haue recourse straightwaies to their books to be directed by them, that is to say, they try experiments by the hazard of their poore patients; and there finding the names of this and that, they set downe a receit, & for the making thereof trust the Apothecaries, as also for the ingredients, which commonly they do sophisticate and corrupt by all deceitfull meanes that possibly they can devise; selling their emplasters and collyries that are old made, and such drugs as are past all goodnesse, seruing the bills of the Physitians with the very refuse of their shop. And thus the deceitfull wares that they haue, they rid their hands of, to the discredit of the Physitian, and danger of the sicke.

But to come againe vnto our skales, and floure of brasse or verdegreece; the manner is, first to calcine both the one and the other, either vpon earthen vessels or brasse pans; then, to wash the same, as is before said, and for the same vses. But ouer and above, these being prepared thus accordingly, are singular for the carnosities and excrescences within the nostrils, or the fundament: for hardnesse also of hearing, if they be blowne into those parts by meanes of a pipe: and the sores or cankers of the mouth they doe heale, by application of their powder: this powder also taketh away the inflammations and accidents of the tonsils or almonds about the throat, if it be tempered and incorporat with honey, and vsed in a collution or gargarisme. There is be-

* Effluantur, or rather, Effluantur, are breathed and sent forth.

* Stomoma is nothing else but Steele, and therefore, Pliny here doth erre like as in most of this chap.

side, a scale that commeth of laton or white brasse, farre better than that which the red brasse or copper doth yeeld.

Moreover, there is a denier that some vse, namely, to let first the nails and parties of brasse to lie wet in the vrine of a boy; others, so soone as the scales be driuen off, bray them, and afterwards wash them in rain water, which they vse to giue for the dropie, to the weight of two drams in one hemine of honied water; and besides they make a liniment with it and flour, for to vse outwardly to the belly.

* Which some take to be verdegreece.
* *Erugo vrasilia*.

As touching the rust of brasse, great vse there is of it in Physick: but it commeth after many sorts, for first and foremost, it is found sticking (in manner of the flour aforesaid) vnto the stone or ore out of which brasse is tried, in such sort, as it must be scraped from it before a man can haue it. Also it is made after an artificiall manner, by hanging certain plates of laton driuen full of holes, and hung in a pipe or barrill ouer vineger; but the same ought to be close couered and stopped with a lid of brasse, so as the said plates do not touch the vineger: and verily, verdegreece thus made, is far better than of skales in the same wise vsed. Some there be that take vessels of white brasse or laton, and put them in earthen pans, where they suffer them to lie in vineger for ten daies together, and then scrape off the verdegreece or rust that is gathered vpon the said laton. Others there are who couer the said vessels of laton in the refuse of grapes after they be pressed (skins I meane and stones), and after ten daies, as is aforesaid, scrape off the Verdegreece which they find vpon the brasse. There be againe, who take the fine dust which the file fetcheth from brasse, and strew the same in a vessell of vineger, stirring it with spatules or ladles oftentimes in a day, vntill it be resolued into the vineger and consumed: and yet many think it better to work and stamp the said file-dust with strong vineger in a brassen mortar, for to gather verdegreece. But the speediest way, of ingendring the said rust of brasse or verdegreece, is to take the cuttings, parings, or small pieces of laton plates, such as be employed about coronets, and to put them in vineger, and you shall haue diuers, who will not sticke to sophisticate verdegrees (such especially as is brought out of Rhodes) by mixing it and the powder of marble together; others with the pumish stone puluerized, or els with gum. But the cunningest deuice that they haue to falsifie it and deceiue chapmen by, is to mingle vitrioll amongst: for all the other deceitfull tricks be soone found out by the teeth, because a man shall fee the verdegreece to crash and grate between them, like grit, which hee shall not perceiue if it be sophisticate with vitrioll: howbeit, this sophistication also and fraudulent cast, may be soon detected and found out by an experiment made with a slice or fire-pan of yron-made red hot in the fire: for cast vpon it the right and true verdegreece indeed, it will hold and keep the owne colour still; but if it be corrupted with vitrioll, you shall see it turne red. You may discouer likewise the fraud aboue said with paper, tempered beforehand and foked in gall-nuts; for besmeare therewith the verdegreece that is falsified, it will quickly become black. The eie also wil soon bewray the falsehood that is vsed therein, for if it be naught, a man shall perceiue it to looke with a weak green color, nothing full nor fresh. But be the verdegreece true or false, the best way is, before it be employed in Physick, after it be dried, to calcine it vpon a new earthen pan that neuer was occupied, and in the burning to turne it often with a slice or spatule, vntill such time as it be reduced into light cinders, and then after it is finely puluerized, to lay it vp for vse. Others prepare it after another sort; they put it in an earthen pot vn timer, and set the same into an oven, where they let it stand to be calcined so long vntill the said pot of clay be well and thoroughly baked. Finally, there be, that before they vse Verdegreece, put thereto the male Frankincense, the best that can possibly be had.

* Of the red Papyrus.

* *Olibanum*.

* *Græce Sinda-urum*, which Pliny translates *delachry-mationibus mor- dædoprosfici-entibus*: which also may be turned thus, It helpeth watering eyes proceed- ing of some fretting humors.

The manner also is to wash verdegreece before it be occupied, after the same order as Cadmia is vsed. Being thus made & prepared as is aboue said, it is excellent to be put into eie-salues or collyries, for by a mordicative quality it helpeth weeping and watering eyes: in which regard, necessarie it is that it be washed first with pencils well bathed in hot water, so long vntill it haue lost that corrosiue quality.

As touching Hieracium, a composition it is or collyrie so called, and made in this manner: Take foure ounces of Sal Ammoniacke, of Cyprian Verdegreece two ounces, of shoemakers blacke, or that coppereffe which the Greekes name Chalcantum as much, that is to say, two ounces; of Myfy or yellow vitrioll one ounce, and of saffron six: let all these bee stamped together and tempered in the vineger of Thasos vntill they be concorporat, and then reduce them into

into trochiques. A singular collyrie or eyefalue this is to withstand the beginning of pearls, catarrachs, and such accidents of the eyes, to discusse also the webs that come ouer their sight, to leuigate the roughnesse of the tunicles, to dispatch the white skars, and in one word to cure all the infirmities of the eielids. As for verdegreece, that is not calcined at all, it is excellent good to be put into vulnerarie or healing plasters: the same also is of a wonderful operation to cure the exulcerations of the mouth or the gumbs; the lips also exulcerat it heales, being reduced into a liniment with oyle: but if you put wax thereto, it doth mundifie, and withall skin and heale perfectly. Verdegreece is proper to eat away and consume the callositie growing in a fistula, and in those infirmities which are incident to the feat or fundament, whether it be brought into a liniment with gum Hammoniacke and so applied, or else in forme of a collyrie, that is to say, a tent thrust into the hollow fistula. The same verdegreece incorporat with a third part of the true rosin called Terpentine, is soueraigne for foule leprogies and wild-fires.

CHAP. XII.

¶ Of *Scolecia*, and *Chalcitis*, of *Myfy*, *Sory*, and *Chalcantum*.

ANother sort there is of Brasse-rust or Verdegreece, which commonly is called *Scolecia*: this is made of alume, salt or salnitre, of each a like weight, stamped well together with the strongest white wine vinegre that can be gotten, in a mortar of Cyprian brasse or copper: and this must not be done but in the hottest daies of the yere, to wit, about the rising of the Dog-starre. Now must all the ingredients aforesaid be punned and incorporat together, vntill such time as the masse become green, and that it gather and draw together in manner of crawling wormes, whereupon it taketh the name *Scolecia*. But if so be, that this manner of working and making it, chance to faile and doe not well, for to amend the same, the two parts of vinegre which entred into the mixture, ought to be tempered with as much vrine of a boy vnder fourteen yeares of age. Now if you would know the medicinable effects and vertues of this kind of verdegreece, both it and the artificiall Borax aforesaid (which I named *Sañterna*) be of the verdegreece, there is the ordinary rust of brasse or verdegreece, called in Latin *Ærugo*. There is a kind of *Scolecia* naturall or mineriall of it selfe, without addition of any thing els whatsoeuer, whereof I purpose to speake in this place, and the same is scraped from the stone or ore of which commeth brasse. There is a stone lying in the mine which they name *Chalcitis*, out of which also (with burning) they excoit brasse: differ it doth from *Cadmia*; for *Chalcitis* is hewed out of the mines that lye aboue, very ebb and exposed to the ayre, whereas the other is digged from vnder the ground in those mines that lie hidden. Item, *Chalcitis* (as being of a tender and soft nature) presently will crumble into pieces, so as it seemeth to be a certaine fine mosse concreat and gathered together. Also, there is another difference betweene these two *Marcaffins*; for that, *Chalcitis* containeth in it three seuerall kinds of matter, to wit, Brasse, Myfy, and Sory; of which I purpose to speak seuerally by themselves in their due place. Now this *Chalcitis* lies within the brasse mine in long veins: that which is of a yellowish colour like hony, full of small veins running here and there, brittle and apt to crumble, and not of a stony hardnesse, is counted the best: the fresher also and more newly gathered that it is, the more effectually and wholely some men take it to be; for that being long kept, it will grow into the nature of Sory. Being thus in the right nature, it hath a facultie (if it be puluerized) to repress also the accidents befalling to the proud or dead flesh in vlcers, to staunch blood, to repress also the accidents befalling to the gumbs, vula, and tonsils: the same put vp into the naturall parts of a woman within a locke of wooll in manner of pessarie, helpeth the infirmities of those places: but if it be tempered and incorporat with the juice of porret, it serueth to put into those plasters which are appropriate to the vlcers and sores of the priuities or members of generation. Now if you steepe it in vinegre, and let it lie so infused within an earthen pot well luted with beasts dung, for the space of forty daies, it will come to the colour of saffron: put then vnto it of *Cadmia* stone the like quantitie in weight, you shall haue that medicine which is called *Pforicum*. Also, if in this composition you put two parts of *Chalcitis* to one third part of *Cadmia*, & so temper them together, this aforesaid medicine will be more quick & agre: but in case you would haue it yet more mordicant and stronger in operation, let the said ingredients be tempered rather with vinegre than wine. Calcine the same or torrifie it, you shall find it more effectually in all operations aforesaid.

* A kind of verdegreece or rust of brasse in manner of a worme, as Pliny taketh it. * The flour of copper, whereof is made vitrioll, as some think. * *Brassæculus* holdeth it to be vitrioll. Romanes: others take it for yellow copper. * Duskish or ash-colour copper. * Vitrioll. * It seemeth that Pliny doth here err; by reading in *Diog. oenobolus* for *chalcitis*; & for *chalcitis* is *chalcitis*: for the said mixture is to be reduced into certain trochiques or thin cakes called *chalcitis*, and not into the form of worms.

* The veine
of minerall,
whereof com-
meth the dus-
kish Vitrioll.

As for * Sory, that which is brought out of Ægypt is counted best, and farre better than the Cyprian, Spanish, or African: neuerthelesse, some hold that which commeth from Cypresse, to be more appropriat to the cure of the eies. But of what country soeuer it be, the principall is that which to smell vnto is of the rankest and most stinking sauour: the same also in the bruising will grow black and be vntoeous or fatty, and such lightly is hollow in manner of a sponge. A minerall this is altogether hurtfull to the stomack, and so contrary vnto the nature of it, that to some the very smell thereof is enough to ouertune it and to cause vomit: and especially the Ægyptian Sory is of this operation. That which commeth from other nations, when it is broken or braied, shineth againe.

Touching Myfy, it is of a more hard and stony nature than Sory, but good it is for the tooth ache, if either it be held in the mouth, or a collution be made therewith to wash the teeth and gums: also it healeth the grieuous and irkesome sores of the mouth, yea though they grow to be cancerous and corrosiue. The manner is to burne and calcine it vpon coles of fire as Chalcitis. Some neuerthelesse haue written, that Myfy is engendred by the means of a fire made with pine wood, in the hollow veins or mines of brasse ore: and they hold, that the cinders or ashes of this pine fewell, being mingled with the yellow greines or floure of the said mettall, is that which begetteth Myfy. But the truth is, of the foresaid stone or ore it is ingendred naturally: howbeit, a thing it is by it selfe gathered, distinct and separat from it apart: and the best is that which is found in the mines and forges of Cypresse. You shall know it by these signes: break it (for crumble it will) there appeare within it certain sparks shining like gold: and in the braying or stamping, it runneth into the nature of a sand or earth, like vnto Chalcitis. This Myfy is the Minerall that they put to gold ore, when it is to be tried and purified.

To come vnto the medicinable vertues thereof: being infused or powred into the eares with oile of roses, it cureth the running with matter: the same being applied in a frontal within wool to the head, easeth the ach thereof: it doth extenuate also and subtiliat the asperities of the eies, such especially as be inueterat and haue continued long: but soueraigne it is found to bee for the inflammation or swelling of the tonsils, for the squinancy, and all impostumat sores growne to suppuration. For which purpose, prepared it would be in this wise, and after this proportion: Take of it 16 drams, seeth the same in one hemin of vineger with some addition of hony, vntil it begin to yeeld and relent, and in this manner ordred, it serueth in cases aforesaid: but whensoever need requireth to mollifie the violence thereof, and make it more mild, it were good to wet it with some sprinkling of hony. If there be a lotion or fomentation made with it in vineger, it doth consume and eat away the hard callositie in fistuloes, and fortifieth greatly the collyries or tents to be made thereof, and put it into the concauity of the fore: it serueth also for the collyries that be eie-salues: it stancheth bloud, represseth the malice of fretting humors in corrosiue vlcers and such as do putrifie: the excrecence of proud or ranke flesh it taketh downe and consumeth: a peculiar property it hath to cure the accidents of the members of generation in men and withall stoppeth the immoderat flux of the moneths in women.

As concerning Vitrioll, which wee call in Latine Atramentum Sutorum, y. Shoos-makers blacke, the Greeks haue fitted it with a name respectiue vnto brasse, and by a neere affinity therunto call it Chalcantum: and verily there is not a mineral throughout all the mines, of so admirable a nature as it is. There haue been found in Spaine certaine pits or standing pooles, containing a water of the nature of Vitrioll: they vsed to seeth the same, putting thereto of other fresh water a like quantitie, and poure it into certaine troughs or broad keelers of wood: ouer these vessels, there be certaine barres [of yron] or transoms ouerthwart, lying fast that they cannot stirre, at which there hang downe cords or ropes with stones at the end stretching them out-right, that they reach to the bottome of the sayd decoction within those keelers, to the end that the viscous substance of the water may gather about those cords, which you shall see sticking fast thereto in drops, congealed in manner of a glasse, and it doth represent as it were the forme of grapes; and that is Vitrioll. Being taken forth and separated from the cords aforesaid, they let it dry for the space of thirtie dayes. In colour it is blew, and carrieth with it a most pleasant and liuely lustre, so cleare, as a man would take it to bee transparent glasse. Of this being infused in water, is made that blacke tincture which Curriers and Coruiners occupie in colouring of their leather. This Vitrioll is ingendred many waies of the coppereffe vein within the mine, being hollowed into certaine trenches: out of the sides whereof you shall see in the midst of

Vitriol

A Winter when it is a frost, certaine yfickles depending, as the drops destilled and grew one to another: whereupon this kind of Vitrioll they call Stalagmias, and a purer or clearer thing there is not. But look what part thereof is whitish of colour, but not transparent, and the same inclining to the wall floure or * white violet, the same they call Leucoion. There is a Vitrioll likewise made artificially in receipts and concauities (dugged of purpose in the stonie mines of Cypresse) by occasion of raine water there congealed, which had been conueighed into them, and gathered a viscous slime or mud in the passage. Also there is a cast to make it in manner of salt by letting fresh water into such hollow receptacles, and permitting the same to ferment in the sun when he is at the height and full strength of his heat in the summer, vntil it be gathered and hardened as salt. And therefore some there be who make two sorts of Vitrioll, to wit, the Naturall, or Minerall, and the Artificiall: this that is made by the industry and art of man is paler than the other, and looke how much the colour is abated, so much inferior it is in goodnesse. The Cyprian Vitrioll is thought best to be imploied in Physicke. For, to expell the wormes out of the belly, it is giuen vnto the patient to the weight of one dram in honey, after the manner of an electuary. If the same be dissolved and conueyed vp into the nostrills, it purgeth the head. In like manner it purgeth the stomack, in case it be taken in hony or honied water. The asperities of the eies, their paine, and the dimnesse or mists ouergrowing the sight, it dispatcheth: and healeth the sores in the mouth. It staieth bleeding at nose, and the immoderat running of the Hæmorrhoids. It draweth forth spels of broken bones: and tempered with the seed of Henbane, it stoppeth the course of a rheum running to the eies, if it be laid in a cloth to the forehead in manner of a frontale. Of great effect it is in plasters, both for to mundifie wounds and to consume the excrecence of flesh in vlcers. If the Vvula be fallen, it putteth it vp againe, by touching it only with the decoction thereof. Moreouer, being incorporat with line-seed, it is singular good to be applied aloft vpon plasters, for to mitigat pain. Of this kind, that which is white is preferred before any that are of a yellowish colour like * wall-floures aforesaid. Moreouer, if it be blown into the eares by the means of a pipe, it doth remedy the hardnesse of hearing. A liniment made of Vitrioll alone, healeth vp wounds, but it draweth the skar too neare together: in regard of which astringencie of Vitrioll, there hath bin an inuention deuised of late, to cast the powder of Vitrioll into the mouths of Bears and Lions when they are to be baited: for so great a knitter and binder it is, that it will draw their chaws together in manner of a muzzle, that they shal not be able to bite.

* Violet also,

* Volaris: hee meaneth those that resemble Leucoion, and which he called before by that name.

CHAP. XIII.

¶ Of Pompholyx: Of Spodos, Antispodos, and of Diphryges. Of the Trient of Seruilius.

There be found ouer & besides in brasse smithies or furnaces, those matters which they call Pompholyx and Spodos: and the difference of the one from another, consisteth in this, that Pompholyx requireth washing for to be prepared, Spodos neuer commeth into water or liquor. And yet some distinguish them otherwise, calling the whitest and lightest part, Pompholyx: holding opinion, that it is nothing els but the very cinders of brasse, or the Calamine stone Cadmia, whereof brasse commeth: whereas Spodos (say they) is blacker and more weightie than Pompholyx, as being scraped from the wals and sides of the furnaces, among which you shall see many times grosse sparks, yea, and otherwhiles coles intermingled. Well, this Pompholyx being tempered or soaked in vineger, smells of brasse: and if a man touch it at the tongues end, hath a horrible tast that goeth against ones stomacke. Proper it is to enter into those compositions which be ordained for the eies, for it helpeth all the infirmities incident thereto: and in one word, serueth for the same purposes that Spodos doth: herein onely lieth the difference, that Spodos is thought to be more mundificatiue, by reason that the strength of Pompholyx is delayed by the washing aforesaid. It is one of the ingredients also to those implasters which are deuised for gentle refrigeratiues and exiccatiues. And for whatsoeuer it shall be imploied, better it is found to be, in case it were washed first with wine.

As touching Spodos, the Cyprian is most esteemed: and ingendred it is, whiles Cadmia and the brasse ore or stone be melted together in the furnace. Exceeding light it is, and apt to mount aloft with the smoake of the bloome smithie, very speedily, yea, & ready to flie out of the fur-

image of *Hercules* all of hard yron or steele, which *Alcon* the famous workman made of purpose, to signifie the vndaunted heart of that deified *Hercules*, who vnderwent and indured all labours and perils whatsoeuer. Here also in Rome we may see certain drinking cups of steele dedicated in the temple of *Mars* the Reuenger.

But to come vnto the nature of yron, herein appeareth still the same goodnesse of Nature, that this mettall working such mischiefe as it doth, should be reuenged of it selfe, and receiue condigne punishment by the own rust. See also the wonderful prouidence of Nature, who maketh nothing in the world more subiect to death and corruption, than that which is most hurtfull and deadly to mankind.

As touching mines of yron ore, they are to be found almost in euery country, for there is not so much as the Island *Iliua* here within Italy, but it breedeth yron. And lightly wherefoeuer any such be, they are easily found, for the very leere of the earth, resembling the colour of ore, bewraileth where they lie. And when it is found out, they burn, try, and fine it, as other veins of mettall. Onely in Cappadocia there is some question and doubt made, whether in the making of yron they be more beholden to the earth that yeeldeth the ore, or to the water for the preparing and ordering of it: for this is certain, that vnlesse the vein of ore bee well drenched and foked with the water of one riuer there, it will neuer yeeld yron out of the furnace. As for the kinds of yron many they are, and all distinct. The first difference ariseth from the diuersity of the soile and climats where the mines be found: for in some places, the ground & the position of the heauens do yeeld onely a soft ore, and comming nearer to the substance of lead than yron: in another, the mettall is brittle and short, standing much vpon a veine of brasse, such as will not serue one whit for stroke and naile to bind cart-wheels withall, which tire indeed would be made of the other that is gentle and pliable. Moreouer, some kind of yron there is that serueth onely, if it be wrought in short and smal works, as namely, for nailes, studs and tackes imploied about greeces and leg-harneis: another againe, that is more apt to take rust and canker than the rest. Howbeit, all the sorts of yron ore are termed in Latine *Strictura*, a word appropriat to this mettall & to no other, * *Stringenda acies*, of dazling the eyes, or drawing a naked sword. But the furnace it self, where the ore or yron stone is tried, maketh the greatest difference that is: for therein you shall haue to arise by much burning and fining, the purest part thereof, which in Latine is called *Nucleus ferri*, the kernell or heart of the yron [and it is that which we call steele] and the same also of diuers sorts: for the best is it that hardeneth the edge of any weapon or toole: there is of it which serueth better for sithy or anuill heads, the faces of hammers, bits of mattocks, and yron crowes. But the most variety of yron commeth by the means of the water, wherein the yron red hot is eftsfoons dipped and quenched for to be hardened. And verily, water onely which in some place is better, in other worse, is that which hath innobled many places for the excellent yron that commeth from them, as namely, *Bilbilis* in Spaine, and *Tarassio*, *Comus* also in Italy; for none of these places haue any yron mines of their owne, and yet there is no talk but of the yron and steele that commeth from thence. Howbeit, as many kinds of yron as there bee, none shall match in goodnesse the steele that commeth from the *Ceres*: for this commoditie also, as hard were as it is, they send and sell with their soft silks and fine furs: in a second degree of goodnesse, may be placed the Parthian yron. And setting aside these two countries, I know not where there be any bars or gads tempered of fine and pure steel indeed, for all the rest haue a mixtue of yron, more or lesse. And generally in this West part of the world wherein wee liue, all our steel is of a more soft and gentle temperature than that of the Leuant. This goodnesse of steele in some countries ariseth from the nature of the mine, as in *Austrich*: in others from the handling and temperature thereof, like as by quenching, as I said before, and namely at *Sulmo*, where the water serueth especially for that purpose: and no maruell, for we see a great difference in whetting and sharpening the edge of any instrument, between oyle whetstones that barbars vse, and the common water grind-stones: for surely the oile giueth a more fine and delicat edge. Furthermore, this is strange, that when the ore or vein is in the furnace, it yeeldeth yron liquid & cleare as water, and afterwards, being reduced into bars and gads when it is red hot, it is spongeous and brittle, apt to break or resoue into flakes. And considering the difference that is between the nature of oile and water (as I haue said) this is to be obserued, that the finer any edge tooles bee, the manner is to quench them in oile for to harden the edge: for feare lest the water should harden them ouer much, and make the edge more ready to breake out into nickes, than to bend

* *Nihil in rebus mortalibus faciente, quam quod infirmitas, mortalitatis, the grace of this Latine cannot be so well expressed in English.*
* Which our smiths call Col far-yron
* Some read a *stringenda* (ou-
loring) of
of dazling the
eyes, which is
red hot, or the
bright blade of
sword & other
weapons, doth
but neither any
copies of the
author haue
the word *for-*
lorum, neither
haue I read
stringere, but
per *stringere*, to
signifie, to da-
zle: others vn-
derstand it of
drawing a na-
ked sword: &
yet it is not so
proper in La-
tine to say in
that sense,
stringere aciem,
as *stringere fer-*
rum, or *gladium*:
howbeit, I in-
cline rather to
this, for that
Pliny a little
after calls the
best steele *Ac-*
ies, which
word haply is
the primitive,
from whence
acies also is v-
sed for an edge,
&c. and yet it
may be, that
whole *stringere*
is, sparkling
scales, flying
fro iron vnder
the smiths ha-
mer, & fro no
other mettall,
(which do per-
stringere aciem
enloru, if any
thing els) may
giue occasion
herof. Sed hoc
videtur Critici

A and turne again. But wonderfull it is about all, that mans blood should haue such a vertue in it, as to be reuenged of the yron blade that shed it; for being once embrued therein, it is giuen euet after eftsfoones to rust and canker.

Concerning the load-stone, and the great concord or amity betweene yron and it, I meane to write more amply in the due place. Howbeit, for the present thus much I must needs say, that yron is the only mettall which receiueh strength from that stone, yea, and keepeth the same a long time, in so much, as by vertue thereof, if it be once well touched & rubbed withal, it is able to take hold of other pieces of yron: and thus otherwhiles we may see a number of rings hanging together in manner of a chaine, notwithstanding they be not linked and inclosed one within another. The ignorant people seeing these rings thus rubbed with the load-stone, and cleauing one to another, call it quick-yron. Certes, any wound made by such a toole, are more eager and angry than by another. This stone is to be found in *Biskay*, scattered here and there in smal pieces by way of bubblation (for that is the term they vse,) but it is not that true Magnet or load-stone indeed, which growes in one continued rock. And I wot not whether these be so good for glasse makers, and serueth their turn so well in melting their glasse, as the other: for no man yet hath made experiment thereof. But sure I am, that if one do rub the edge, back, or blade of a knife therewith, it doth impart an attractive vertue of yron thereunto, as well as the right Magnet. An here I cannot chuse but acquaint you with the singular inuention of that great architect and master deuifer, of *Alexandria* in *Egypt*, *Dinocrates*, who began to make the arched rooffe of the temple of *Arifnoe* all of Magnet or this load-stone, to the end, that within that temple the statue of the said princeffe made of yron, might seeme to hang in the aire by nothing. But pre- uented he was by death before he could finish his worke, like as *K. Ptolomee* also, who ordained that temple to be built in the honour of the said *Arifnoe* his sister.

But to returne again to our yron: of all mines that be, the vein of this mettall is largest, and spreadeth it self into most lengths every way: as we may see in that part of *Biscay* that coasteth along the sea, and vpon which the Ocean beateth: where there is a craggy mountaine very steepe and high, which standeth all vpon a mine or veine of yron. A wonderfull thing, and in maner incredible, howbeit, most true, according as I haue shewed already in my *Cosmography*, as touching the circuit of the Ocean.

CHAP. XV.

The temper of yron. The medicinable vertues thereof, as also of the rust of Brasse and yron. Of the scales that shed and flie from yron: and of the liquid emplaster called by the Greekes *Hygriplastrum*.

Iron made once hot in the fire, vnlesse it be hardened with the Hammer, doth soone waste and corrupt. So long as it looketh but red, it is not ready for the hammer, neither would it be beaten before it begin to look white in the fire. Besmeare it with vinegar and Allum, it wil looke like copper or brasse. If you be desirous to keep any yron worke from rust, giue it a vernish with cerusse, plaster, and tar, incorporat all together. And this is that composition, which is called by the Greeks * *Antipathia*. And some fay also, that there is a kind of hallowing yron that will preferue it from rust: as also that there is at this day to be seen the chaine of yron within the city called *Zeugma*, seated vpon *Euphrates*, wherewith king *Alexander* the Great sometime bound and strengthened the bridge ouer the riuer there: the linkes whereof, as many as haue been repaired and made new since, doe gather rust, whereas the rest of the first making, be all free therefrom.

As touching the vse of yron and steele, in Physicke it serueth otherwise than for to launce cut and dismember withall: for take a knife or dagger and make an imaginarie circle two or three times with the point thereof, vpon a yong child, or an elder body, and then goe round withall about the party as often, it is a singular preseruatiue against all poisons, forceries, or enchantments. Also to take any yron naile out of the coffin or sepulchre wherein man or woman lieth buried, and to sticke the same fast to the lindle or side-post of a dore, leading either into the house or bed-chamber where any doth lie who is haunted with spirits in the night, hee or shee shall be deliuered and secured from such phantasticall illusions. Moreouer, it is said, That if one be lightly pricked with the point of sword or dagger which hath bene the death of a man, it

* *Vulgus est in timore.*

is an excellent remedy against the paines of sides or brest, which come with sudden pricks and G stitches. An actuall cauterie of yron red hot, cureth many diseases, and especially the biting of a mad dog; in which case it is so effectuall, that if the poison inflicted by that wound, haue preuailed so far, that the patient be fallen into an Hydrophobie thereby, and cannot abide drinke or water, let the fore be feared therewith, the party shall find help presently. Gads of Steele or other yron red hot quenched in water, so long vntil the same water be hot, causeth it to be a whole-some drinke in many diseases, but principally in the bloody flux.

The very rust of yron also is counted medicinable: for so *Achilles* is said to haue healed *Telephus*: but whether the head of his speare were yron or bras, of which he vsed the rust, I doe not certainly know. Certes, he is paynted thus: with his sword scraping and shaking off the rust into the wound. But if you would fetch off the rust from any old nails, scrape it with a kniue wet before in water. As touching the vertues thereof, it is clensing, exiccatieue, and astringent; it recouereth the haire in places despoiled thereof, if they be annointed therewith in the forme of a liniment: being reduced into a salue with wax and oile of Myrtles incorporate together, many vse it for roughnesse about the eie-lids: the pimples also breaking forth all ouer the body. For shingles and *S. Antonies* fire, it is singular good to apply it in an vnguent with vineger: likewise it killeth scabs, and healeth whitlawes of the fingers, and the excrescence or turning vp of the flesh about the roots of the nails, if linnen rags wet therein be applied conueniently. The same conueyed vp in wooll after the manner of a pessary into the naturall parts of women, staieth the immoderat flux both of whites and reds. The rust of yron tempered in wine, and wrought together with Myrrhe, is good for a Greene wound: put thereto vineger, and then it helpeth the piles I and swelling bigges of the fundament. A liniment made with it, mitigateth the paine of the gout.

As touching the skales of yron that flie from the edge or point of any weapon wrought in the smiths forge: they serue in the same cases, that the rust doth, and haue the like effects, saue only this, that they haue greater acrimonie, and work more eagerly: in which regard they are employed about the repressing of the flux that falleth into watering eies. But marke this one thing: Yron being that which woundeth most and sheddeth blood, yet the skales that come from it, stanch the same: a property they haue besides to stop the flux in women: and being applied to the region of the spleene, they do open the obstructions thereof, and ease other infirmities incident thereto: the running hemorrhoids they repress, and such vlcers as are giuen to spread farther and corrode as they go. Reduced into a fine powder, and gently strewed vpon the eye-lids, they are good for the accidents thereto belonging. But the principal vse of them, and for which they are most commended, is in a certain liquid plaster called *Hygreplastum*; which serueth to mundifie wounds, vlcers, and fistulaes: to eat away all callosities, and to incarnate and engender new flesh about bones that are perished. And this is the receipt of that composition: Take of the scouring Tuckers earth the weight of two oboli, of bras six drams, of the skales of yron as much, and no lesse of wax, incorporate all these according to art in one sextar of oile. But in case there be need to mundifie any sores, or to incarnate, there would be put thereto some plain cerot besides.

CHAP. XVI.

¶ Of the Mines of Lead ore: of *white lead and blacke.

* Which seme
hold to be
Tin glasse.
* Our ordinary
lead,

NOW insueth the discourse of lead, and the nature of it; of which there be two principall kindes, the blacke, and the white. The richest of all, and that which carrieth the greatest price, is that which we in Latine name *Plumbum candidum*, i. the white bright lead, and the Greeks *Cassiteron*. But I hold it a meere fable and vaine tale, that all of it is fetched as farre as from the Islands of the Atlantick sea, and that the inhabitants of those parts doe conueigh it in little twiggen boats, couered all ouer with feathers. For the truth is, that there is found of it in these daies within Portugall and Gallæcia, growing ebbe vpon the vpmoost face of the earth, being among the sands, of a black colour, and by the weight only is knowne from the rest of the foile: and here and there among, a man shall meet with small stones of the same stuffe, most of all within the brookes that be dry sometimes of the yere. This sandie and grauelly substance, the mine masters and mettall finers vse to wash, and that which setleth downward, they burne and

& melt in the furnace. There is found likewise in the gold mines a kind of lead ore which they cal *Eluria*; for that the water that they let into those mines (as I said before) washeth and carrieth down withall certain little blacke stones streaked and marked a little with a kind of white, and as heauy they be in hand as the very ore of gold; and therefore gathered they be with the same ore, and laid in the paniers together therewith: and afterward in the furnace when the fire hath made a separation between them and gold, so soone as they are melted do resolue into the substance of the white lead or tinglasse aforesaid.

Moreover, this is strange, that throughout all Gallæcia you shal not find a mine of common black lead, & yet in Biskay (which confineth hard vpon it) there is abundance of it & no other; neither out of the vein of this white lead shal you try any siluer, whereas out of the black it is an ordinarie thing to extract siluer. Again, this is certain, that two pieces of black lead cannot possibly be sodered together without this tinglasse; neither can this be vnited to the other but by means of oile: nay it is vnpossible to conioyne a piece of tin-soder or white lead with another, but with a soder of the black. This white lead or tinglasse hath bin of long time in estimation, euen since the war of Troy, as witnesseth the poet *Homer*, who calls it *Cassiteron*. As for blacke lead, ingendred it is two maner of waies, for either it groweth in a vein of the owne without any other mettall with it, or els it doth participat with siluer in the same mine, and being intermixt in one piece or lump of ore, it is separated from it at the melting and fining only; for the first liquor that runs from it in the furnace is tin, and the second siluer. As for the third part of the vein which remaineth behind in the furnace, it is *Galæna*, that is to say, the very mettall it selfe of lead; which beeing once againe melted and tried in the fire, after two parts thereof be deducted, yeeldeth that black lead whereof we now do treat.

CHAP. XVII.

¶ Of Tin, of Argentine Lead, and other points pertinent to these matters.

IN hath a proper vse to enhuile vessels of bras, partly to take away the euil tast they haue, and to make them sweeter, and partly to preserue them from rust, or to qualifie the malitious nature of bras: and yet wonderfull it is, that such vessels thus tinned are neuer a jot the heauier by that means. Also in times past there were (as I haue already said) excellent Mirrors made of tin, and the same were tempered & wrought at Brundise: but those of siluer haue put them down since, that euery chamber-maid and such like seruing creature would be at their looking-glasses of siluer. But tin is found much counterfeited in these daies, by putting to White lead aboute said a third part of white bras; yea and there is another deuise to sophisticate tin, to wit, by mixing white and blacke lead one with another by euen weight and portion: and this maslen some call at this day, * siluer lead or argentine. As for that mixed matter wherein be two parts of black lead, and one of the white, they cal it *Tertiarium*: this kind of tinne is sold after * 30 the pound, and it is that wherewith they vse to soder conduit pipes: but the lewder disposed pewterers haue a cast to put vnto this tin called *Tertiarium*, an equal quantity of white lead and then they call it *Argentarium*: which mettall they employ in vessels for the kitchen, to seeth meat or what they list in them: and this kind of pewter wanteth no price, for they set it at 130 the pound, whereas a pound of white lead or tinglasse pure and fine of it selfe, is sold for thirty, and the blacke for sixteen. As touching the temperature and nature of the white lead, it standeth more vpon a dry substance, contrariwise, that of blacke is wholly moist and liquid: which is the reason that the said white lead or tinglasse will serue to no vse or purpose vnlesse it be mixed with some other mettall; neither is it good to lead or soder siluer with, for sooner will siluer melt in the fire than it. There is a deuise to tin pots, pans, and other pieces of bras so artificially with white lead or tinglasse (an inuention which came out of France) that hardly a man shall discerne them from vessel of siluer; and such leaded vessels are commonly called *Incothilia*. After the same maner they haue taken vp of late another custome, to siluer the trappings especially and caparisons of their horses of seruice, yea and the harness of coach-horses and draught jades, and namely in the town *Alexia*. As for the former inuention, those of Bourges haue the honour of it. Neither rested they so, but haue proceeded to adorn and garnish in

* i. Pewter, as
some take it.

* This place
seemeth to be
corrupt.

that maner their chariots, wagons, and coaches. But our vain and wastfull wantons not herewith contented, are come now to their wagon seats, not of siluer only, but also of gold: and that which in times past was condemned as monstrous prodigality, to be put into drinking vessels; the same to tread vpon now with the feet, and to waste and consume about waggon and chariots, is commended for finenesse, neatnesse, and elegancie. But to return againe vnto our white lead, if you would know whether it be right and good or no, the proof is to be made in paper: for put it melted into a sheet of paper, if it be not falsified, it will seem to break and rend the paper with the weight, and not with the scalding heat thereof.

Moreouer, it is worth the obseruation, that the Indians haue no mines among them either of brasie or lead, but are content to part with their pearles and pretious stones vnto merchants, by way of counterchange for these mettals.

Black lead or common lead is much vsed with vs for sheets to make conduit pipes; also it is driuen with the hammer into thin plates and leaues. This mettall requireth much labor & toile in Spain and France, before it be gotten out of the mine, so deepe it lieth; whereas in Brittain it runneth ebb in the vppermost coat of the ground, and that in such abundance, that by an extresse act among the Islanders themselves, it is not lawfull to dig and gather ore about such a proportion, set down by stint. Furthermore, all the black lead which now men haue in request, is known by these names, to wit, *Iovetanum*, *Capriense*, and *Oleastre*. As for the drosse and refuse that is purged from it, there is no difference at all, so that it haue the due cleansing by the fire as it ought. These mines alone of lead haue one wonderfull and admirable gift about all others, That if they be forelet a time and suffered to rest, they will grow againe and be more fertile of ore thereby. And in truth this seems to be the reason thereof, for that the aire hath good means and libertie to infuse it selfe, and to enter in at the pores and passages which it findes enlarged and open: much like as we obserue in certain women, who vpon their slips of abortiue fruit, proue thereby more fruitfull and apt to conceiue. And that this is true that I say of lead mines, it was found of late by good experience in the mines of Santaria in the prouince of Boetia in Spain: for whereas in times past for two hundred yeares together, it was wont to be set for a rent of ten pound weight, after it had taken repose and was opened againe, it yielded for euerie ten, 55. Likewise the lead mine named *Antimonianum* within the said prouince, which paid in old time but a chiefe of ten pound weight, is come now to a yearly reuenue of four hundred pound. To conclude, one marvellous quality lead hath besides, That no vessel made thereof will melt ouer the fire, if there be water in it: and yet cast into the said water a little stone, or a small piece of brasie coin, although it be no more than a Quadrant, you shall see it melt, and a hole burnt through it by and by.

CHAP. XVIII.

¶ The medicines that we haue from Lead, and the refuse and drosse of Lead: of the veine of Lead called *Molybdana* or *Galena*: of Ceruse, white Lead, or Spanish White, called *Psimithyum*: and of *Sandaracha*.

Great vse there is in physicke of lead applied by it selfe alone, and namely to repress and keepe downe the skars and cicatrices that rise about the other skin: also by the refrigerative quality that it hath to coole the heat of fleshly lust, if there be bound vnto the loins and region of the reins a thin plate or leafe thereof. And verily *Calvus* the Orator, who by occasion of much dreaming in his sleepe of venereous sports, fell into mighty pollutions, and so farther into the grieuous maladie of *Gonorrhæa* or running of the reines, with wearing ordinarily these leaden plates, stayed (by report) all such vaine and wanton fantasies and imaginations: by which means he preferred also his strength, and had a body able to endure the labor of much study and sitting at his booke. And *Nero* the Emperor (since the gods would haue it so) vsed ordinarily to weare a plate of Lead to his breast, vnder which he would chaunt out lustily with a wide throat and strong voice, his filthy Sonnets and beastly Ballads: but hee shewed thereby that Lead was a singular meanes to maintaine a good voice. But to serue otherwise in Physicke,

Physick, lead ought to be prepared and baked after this manner: take an earthen pan of potters worke, and lay one bed therein of brimstone finely poudered; vpon which, bestow another couch of thin leaues or plates of lead, and a third course ouer them of brimstone and yron file dust together, for to couer all: this being done, set the vessel into a furnace; but while these things are calcining, meet it is and necessary that the vessel or pan aforesaid be well luted and stopped close, that there be no venting or breathing hole at all; for otherwise the lead within the said pan would send forth a noisome vapour and pestilent, most dangerous to all that be within the sent thereof, but to dogges especially, whom it killeth out of hand: and verily, as this exhalation of lead is deadly vnto them, so the aire of all mettals in generall, is aduerse and contrary vnto flies and gnats: which is the reason, that a man shall neuer see any of these insects in mines, forges, and bloome-smithies, where mettals be vsually tried. Now in the calcining of lead, some there be who chuse rather to take the dust of lead gotten off with a file, & to mix the same with brimstone: others think it better to vse ceruse rather than brimstone. Furthermore, lead doth yeeld from it selfe a certaine substance by way of loture, which is of right great and manifold vse in physicke: the making whereof is in this manner, They take a leaden mortar, they pun and stamp the same with a leaden pestill, casting in raine water oftsoones; and thus they labour at it continually vntill such time as the water grow to some consistence and be thicke againe; this they permit to rest and settle: the pure and cleare portion that is aloft, they suck and foke away with sponges: the grossest part that is settled in the bottome, after it is dried, they reduce into trochisks. There be some who stamp in the same order, the file-dust which commeth of lead: others put thereto some lead ore among: and as there be many that vse vinegar or wine in this operation, so there are some againe who take greace or roses in lieu thereof. You shall haue those that for this purpose make choice of a stone mortar, especially of Thebaicke marble, but they take a leaden pestill rather than any other, to bray and pun withall: and by this means the medicinable lead will be the whiter.

Now as touching the lead calcined in manner aforesaid, it may be washed also after the order of *Antimonie* and *Cadmia*: and in this manner prepared, it is of power astringent, good to stop any flux or rheume; proper also to skin and make a smal skar. Much vse there is of lead thus burnt and washed, in collyries or eie-salues, and principally if the eies either stand out too far, or be sunke in too deepe: also it is singular to repress the excrecence of flesh in vlcers, to heale the chaps in the seat or fundament, to cure the running hæmorrhoids, and to discusse or keepe downe the blind and swolne piles: and for all these accidents in generall, the loture of lead aforesaid is most excellent. But the ashes of lead burnt and calcined, is more proper for the cure of corroding vlcers and filthy sores. And in one word, the same effects and operations it hath, that the ashes of paper. Also the manner of burning and calcining lead, is to put into a pan certaine little plates thereof, together with brimstone, turning the same euery and anon either with some yron rod or stiffe stalke and stem of *Ferula* plants, vntill such time as both the one and the other being liquefied, be conuerted & turned into ashes: the same, after that they be once cooled, ought to be punned and beaten againe, and reduced into a most pure and exquisite fine pouder. Some there be who take file-dust of lead, put the same in an earthen pot or greene potters clay, set the same into an oven, and so let it calcine therein vntill such time as the pot be well and thoroughly baked: others againe there are, who mix with lead the like quantity of ceruse, or els of barly, and pun the same like crude lead vncalcined in manner aforesaid, for a loture; and when it is reduced thus into pouder, they make more reckoning of it than of the *Cyprian Spodium*.

Ouer and besides, the drosse or refuse of lead is medicinable: and the best is that accounted, which commeth nearest to a yellow colour, without any reliques at all of the lead among; or else inclining to the hew of brimstone, and cleansed from all earthly substance: this also being braied and broken into small parcels, may be washed in manner aforesaid, and stamped with water in a mortar, vntill such time as the water looke yellow; then must it be poured forth into a pure cleane vessel; and this transuasion ought so long to be continued out of one vessel into another, vntill such time as it haue done casting any residue downward; for the sediment that resteth in the bottome is the best, working the self-same effect as lead doth, but with more acrimony. When I consider all this, mee thinkes I cannot sufficiently admire the diligence of men, who haue made such experiments of all things in the world, sparing not so much as the very

ordure, offall, and filthy excrements, but haue tried conclusions therein so many waies, and left nothing vnattempted.

There is a kind of Spodium also made of lead in the furnace, after the same manner as I shewed before, of copper or Cyprian brasse: the order of washing wherof, is this; to put it in a course linnen cloth, and to lay the same in rain water, that the terrene substance may be separated from the rest that is transfused or passeth through the cloth with the water: and yet the same must be cribled or forced afterwards, and beaten to powder. Some thinke it better to wipe and scoure off the dust from the Calamine with wings, and then to beat it in a mortar with the most odoriferous wine they can get.

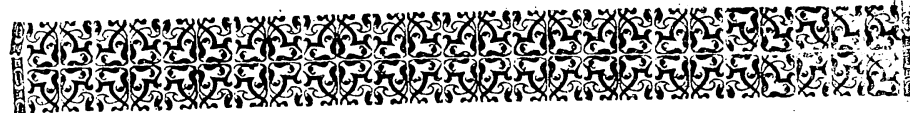
There is besides, a minerall named Molybdæna, which elsewhere I haue called Galæna; by which I meane in this place, the ore or veine that containeth within it, both siluer and lead: the better this is thought to be, the more that it inclineth to the colour of gold, and the lesse that it standeth vpon lead: the same also is brittle, apt to crumble, and in proportion of the quantity not very weighty in hand: the same, if it be boiled with oile, will in colour resemble liuer. There is a kind of Galæna likewise that sticketh to the furnaces of gold and siluer: but this (wherof I now speake) they call Metallica, that is to say, the Minerall: and verily the best of this kinde, is that which is found in Zephyrium: the marks wherof are these; if it haue little or no earth in it, nor be any waies stony: the same is burnt, calcined, and washed, neither more nor lesse than the drosse Scoria. Much vsed this minerall is in those vnctuous liniments or salues called Liparæ, deuised as lenitiue & refrigerant, for vlcers: also it entrencheth into plasters which are * not mordicant: but being applied to any fore in tender and delicat bodies, and in the softest parts, it doth heale faire, and skin throughly. The composition of which plasters, is after this manner; Take three pound weight of this minerall lead Molybdæna, put thereto of wax one pound, and of oile three hemines, which done, incorporat all together (according to art) into the forme of an emplatre. Now if it so fall out that the patient be an elderly body, there would be an addition put thereto of the lees or mother of oile oliue. This minerall may be tempered also to right good purpose, with litharge of siluer, and the drosse of lead, and then it is a most excellent medicine (to be injected by a clystere) for the dysenteric or bloody flux; for the tinesm also, which is an inordinat desire to the stoole without doing any thing; prouided alwaies, that the belly be fomented besides with hot water.

There is another mineral besides, called Psimithyum, which is al one with Ceruse: and this, the furnace and mine of lead ore doth yeeld: but the best of this kind is brought from the Island Rhodes. The manner of making it is this: Take the finest pieces that are scraped from lead, let the same be hung ouer a vessell of the strongest and sharpest vineger that possibly can be had, that they may distill thereinto: and looke what of it is fallen into the said vineger, must be dried afterwards, ground into powder, and searced; & then a second time it ought to be tempered with vineger, and so reduced into seuerall trochiskes, to be dried in the Sun during Summer. There is another way of making Ceruse besides this; namely, to put lead into certaine pots or pitchers of vineger well and throughly stopped, that no aire go out, and therein to let it rest for ten daies space together: after which time, to take it forth, and scrape from it the mouldinesse or vineger, continuing so, vntill such time as the lead be consumed to nothing. Now that which hath been thus scraped from it, they take and beat into powder, they searce it also very fine, calcin it ouer the fire in a pan, stirring and mixing it together with little slices or pot-sticks, vntill such time as it wax red, and be like vnto Sandarach. After all this, they wash it in fresh water so long vntill that all the grossenesse be scoured off: which when it is dry, in like manner as before, they digest into trochiskes. This Ceruse serueth to the same purposes that the rest abouenamed (onely of al the other it is lightest in operation) and besides serueth to make an excellent blanch for women, that desire a white complexion: but deadly it is, being taken inwardly in drink; like as letharge also. This ceruse thus made, as white as it is, in case it be afterwards burnt againe, turneth to be reddish.

As touching Sandarache, I haue already shewed in manner all that concerneth the nature of it; howbeit, this would be noted ouer and aboue, that it is found in the mines as well of siluer as of gold; the redder it is, and of a more strong and violent smell, the better men take it to be; such also is pure, clear, and brittle withal, or easie to crumble: mundificatiue it is and astringent, heating

heating also and exceeding corrosiue: and the principal vertue that it hath, is to fret and putrifie whatsoeuer it worketh vpon: in a liniment with vineger, it causeth the haire to come vp thicke againe in places despoiled thereof by any disease. It entrencheth into collyries or eie-salues: reduced into a lohoch with hony, it clenseth the throat, and maketh a cleare shrill, and loud voice: eaten by way of a bole with turpentine, it is a gentle and pleasant medicine for those that be short-winded and troubled with the cough: a perfume also made with it and Cedar together, is good in the same cases, so that the smoke be receiued vp at the mouth. As for * Arsenicke, it is of the same stuffe: that which is best of this kind, resembleth burnished gold in colour: the paler kind inclining to the colour of Sandarach, is thought to be the worse. A third sort there is, of a middle and medled color, compounded as it were of gold and Sandarach. These two later kinds be skaly aloft: as for the first, which is dry and pure, it is ful of small veins running here and there, whereby it is apt to cleaue as the veine goeth. Of the same operation is Arsenicke as the rest, but that it is more hot and biting; in which regard, it is vsed in potentiall cauteries, and depilatories: it taketh away the carnosities and apostemations about the nailes of the fingers: the superfluous flesh also within the nostrills: the bigs that hang forth of the fundament: and in one word, it eateth away any excrecence whatsoeuer. To conclude, much better it is and more powerful in operation, in case it be calcined in a new earthen pan, where it must torrifie so long vntill it change the colour.

* Yellow orpiment.



THE XXXV. BOOKE OF THE HISTORIE OF NATURE, WRITTEN BY C. PLINIUS SECVNDVS.

The Proem.

THE discourse of Mines and Metalls, wherein principally consisteth the wealth of the world: of other Minerals also growing to them, with the Natures, Operations, and effects of them all, is an argument so knit and annexed to Physicke, that the handling thereof, (which I haue already well-neare performed) not onely discovereth a world of wholesome medicines profitable for the life and health of man, but also inferreth a number of hidden secrets, couched within the Apothecaries shops; yea, and openeth the way vnto the curious Art and subtill deuises of Grauers, Painters, and Diers, inducing me withall to take them also before me, and to treat thereof accordingly: which when I haue done, there remaineth yet for mee a new worke to take in hand; namely, to write of sundry kinds of Earth and Stone, and those linked together & carying with them a longer traine by far, than the former minerals. Concerning which, other authors, and the Greeke writers especially, haue so particularized, that of each one of them they haue written many volumes. For mine owne part, I mean not to follow their steps, but by way of compendious breuitie, to proceed as I haue begun, and yet to omit nothing that is necessary, profitable, and pertinent to Nature.

Y y 3

CHAP.

CHAP. I.

¶ The honour of flat picture in old time.



O begin then with that which remaineth as touching Picture and Painting, this would be knowne, That in times past it was reputed a noble and excellent art: in those daies I meane, when Kings and whole Sates made account thereof; and when those onely were thought innobled and immortalized, whom Painters vouchsafed to commend by their workmanship to posterity. But now, the marble and porphyrit stones haue put painting clean down: the gold also laid vpon them hath woon all credit from painters colours: gold I say, wherewith not only plain and entire walls are richly guilded all ouer, but also the polished works of marble engrauen vpon them after the manner of inlaid work and marquetage of diuers pieces, resembling men, beasts, and floures, and all things else: for in these daies contented we are not with plaine squares and tables of marble, nor with the riches of mighty mountains, couchr vnder couert, & laid within our bed-chambers in that sort as they grew, but come we are now to Emperor, the inuention was taken first in the daies of *Claudius Caesar*: but when *Nero* came to be Emperor, the inuention was taken vp, to giue those colours to stones in their superficiall outside, which they had not of their own; to make them spotted, which naturally were of one simple colour: that by the helpe of mans hand, the * Numidian red porphyrit should be set out with white spots in * eg. fashion: the * Siniadian grey marble distinguished with marks and strakes of purple: as if our delicate wantons shewed thereby how they could haue wished the stones to grow. Thus would they seem to correct the works of Nature, to supply the wants of mountains and quarries, and to make amends for the hills clouen in funder for gold, and hewed in pieces for marble. And what is the end of all this prodigious prodigality and wastfull superfluity? but that the fire when it commeth, may consume in one houre a world of wealth.

* Numidicus.
* Oatius.
* Siniadicus.

CHAP. II.

¶ The estimation and account that was made of Images in times past, represented by liuely pictures.

The manner was in ancient time, to continue and perpetuat the memorial of men, by drawing their pourtraitures in liuely colours, as like to their proportion and shape as possibly could be; but this custome is growne now altogether out of vse: in stead whereof wee haue shields and scutcheons set vp of brasle: we haue faces of siluer in them, without any liuely distinction of one from another: and as for our testerees, the heads vpon them otherwhiles be changed one for another: which hath giuen occasion long since of many a jest and libel spread abroad in rime and sung in euery street. In so much as all men now adaies are more desirous to haue the rich matter scene that goeth to the making of images, than to be knowne by their own personage and visage as it is: and yet euery man delighteth to haue his cabinet and closet well furnished with antique painted tables: the statues & images of other men they think it enough to honor and adore, whiles they themselves, measuring worship by wealth, & thinking nothing honorable that is not sumptuous and costly, see not how by this meanes they giue occasion to their heires for to break open their counters and make spoile of all, or els before that day come, entice a thiefe to be hooking or twitching them away with gins and snares. Considering then, that no man careth for a liuely picture, all the monuments that they leaue vnto their heires, are images rather of their monies, than resemblances of themselves. Howbeit, these great men take pleasure to haue their owne wrestling places and halls of exercise, yea and the roomes where they are annointed, beautified and adorned with the pourtraitures of noble champions: they delight also to haue the face of *Epicurus* in euery chamber of the house, yea and to carry the same about them vpon their rings wheresoeuer they go: in the remembrance and honour of his natiuitie, they doe offer sacrifice euery 20 day of the Moone, and these moneth-minde they keep as holy-daies duly, which thereupon they call *Icades*: and none so much as they who will not abide to be knowne another day by any liuely image drawne whiles they be alieue. Thus it is come to passe, that whiles artificers play them and sit still for want of worke, noble arts by the means

* for they were
so made that
they might be
taken off and
set on againe.

A means are decayed and perished. But I maruel nothing hereat: for thus it is verily and no otherwise, when we haue no respect or care in the world to leaue good deeds behind vs, as the Images of our minds, we do neglect the liuely portraitures and similitudes also of our bodies. In our forefathers daies ywis it was otherwise: their halls and stately courts were not set out with images and pourtraitures after this sort, there were not in them to be scene any statues or images wrought by artisan strangers, none of brasle they had, none of marble, their Oratories & Chapels were furnished with their own and their ancestors * pourtraitures in wax, and those liuely and expressely representing their visages; these were set out and disposed in order, these were the images that attended the funerals of any that was to be interred out of that stock & lineage. Thus alwaies as any gentleman died, a man should see a goodly traine of all those which were liuing of that house, accompanying the corps, causing also the images of their predecessors to march ranke by ranke in order, according to their feuerall descents: in which solemne shew, the whole generation that euer was of that family, represented by these images, is there present, ready to performe that last duty and honour to their kinsman. Moreouer, wheresoeuer these images stood within the oratory and chappell before said, there were lines drawne from them vpon the wall, directing to the feuerall titles and inscriptions which contained their stile, their dignities and honors, &c. As for their studies and counting houses, full they were of books, records, and rols, testifying all acts done & executed by them both at home & abroad, during the time they were in place to beare office of state.ouer and besides those images within house, resembling the bodily shape & countenance, there were others also without dores, to wit, about the portals and gates of the house, which were the testimonies of braue minds & valiant hearts: there hung fixed the spoiles conquered and taken from the enemies, which notwithstanding any sale or alienation, it was not lawfull for the purchaser to pluck down; in such sort, as the house it self triumphed still and retained the former dignity, notwithstanding it had a new lord and master: and verily, this was to the master and owner a great spur to valour and vertue: considering, that if he were not in heart & courage answerable to his predecessor, he could neuer come in at the gates, but the house was ready to reproch and vpbraide him daily for entering into the triumph of another. Extant there is vpon record, an Oration or a & of *Messala* (a great Orator in his time) wherein vpon a great indignation he expressely forbad that there should be intermingled one image that came from another house of the *Leuini*, among those of his owne name and lineage, for feare of confounding the race of his family and ancestors. The like occasion moued and inforced old *Messala* to put forth and publish those bookes which he had made of the descents and pedigrees of the Roman houses: for that vpon a time as he passed through the gallerie belonging to *Scipio Africanus* his house, he beheld therein his stile, augmented by the addition of *Salutio* (for that was one of his synames) which fel vnto him by the last wil and testament of a certain rich man so called, who adopted him for his owne son: as being greatly discontented in his minde, that so base a name as that (to the shame and dishonor of the *Africanus*) should creepe into the noble family of the *Scipio's*. But if I may speak without offence of these two *Messala's*, it should in my conceit be some token of a noble spirit and good mind that loueth and imbraceth vertue, to entitle his owne name, although vntruly, to the armes and images of others, so long as they be noble and renowned: and I hold it a greater credit so to doe, than to demeane our selues so vnworthily, as that no man should desire any of our armes or images. And seeing that I am so far entered into this theam, I must not passe ouer one new deuise and inuention come vp of late, namely, to dedicate and set vp in libraries the statues in gold or siluer, or at leastwise in brasle, of those diuine and heauenly men, whose immortal spirits do speak still and euer shall, in those places where their bookes are. And although it bee vnpossible to recouer the true and liuely pourtraits of many of them, yet we forbear not for all that to deuise one Image or other to represent their face and personage, though we are sure it be nothing like them: and the want thereof doth breed and kindle in vs a great desire and longing, to know what visage that might bee indeed which was neuer deliuered vnto vs: as it appeareth by the statue of *Homer*. Certes, in my opinion there can be no greater argument of the felicity & happinesse of any man, than to haue all the world euermore desirous to know, What kinde of person hee was whiles he liued? This inuention of erecting libraries, especially here at Rome, came from *Asinius Pollio*, who by dedicating his Bibliothetheque, containing all the bookes that euer were written, was the first that made the wits and workes of learned men, a publique matter and a benefit to a Commonweale.

But

* Ptolomæus.
* Philadelphus.
* Attalus.

But whether the kings of * Alexandria in Egypt, or of * Pergamus, began this enterprife before G (who vpon a certain emulation and strife one with another, went in hand to make their stately and sumptuous libraries) I am not able to auouch for certain. But to returne againe to our flat images and pictures; that men in old time delighted much therein, yea, and were carried away with an ardent and extraordinary affection to them, may appeare by the testimony, not only of *Atticus* that great friend of *Cicero's* (who set forth a book intituled, A Treatise of painted images) but also of *M. Varro*, who in all his volumes, whereof hee wrote a great number, vpon a most thankfull and bountifull mind that he carried, deuised to insert not onely the names of 700 famous and notable persons, but also in some sort to set down their physiognomy & resemblance of their visage: not willing as it might seem that their remembrance should perish, but desirous to preserve the shapes and portraits of so worthy personages against the injury of time, which H weareth and consumeth all things, indeuoring by this means, & as it were in a kind of emulation struing to do as much for them in this behalf, as the gods could do, not only in giuing them immortality, but also by dispersing those pourtrails into all parts of the world, to shew them personally in euery place to the eyes of men, as if they were present.

CHAP. III.

¶ At what time scutchions and shields, with images ingrauen in them, were first erected in publique place. Where they began to be set up in priuat houses. The originall of pictures. The first pourtrait that was of one single colour. Of the first Painters. How antient the Art of Painting was in Italy.

AND this verily which *Varro* did, namely, to insert the names & counterfeits of famous men in his books, was to gratifie strangers only. But of those who were desirous in this kinde, to honour Romans, I find in the Chronicles, that *Appius Claudius* was the first (him I meane, who in the 259 yeare after the foundation of the city of Rome, bare the Consulship with *Seruius*, and namely, by dedicating in temples and publicke places of the city, the shelds of his predeceffours by themselves alone. For within the chappell of *Bellona*, hee caused to bee set vp the scutchions and shields of his ancesors, taking great contentment to haue the armes of his predeceffors seen on high, and the same accompanied with the titles of their honorable dignities to be read. A goodly shew, no doubt, and a magnificent, in case there should be shewed withall a long descent of petty images representing a number of children, as it were the nest of a faire brood and off-spring: for who would not take great joy and pleasure to see such a sight, who would not fauorably behold the arms of such a race and linage? After that *Appius Claudius* had giuen this precedent at Rome, there followed *M. Æmilius*, companion in the same Consulship with *Q. Lutatius*, who not contented to haue the Armoires and coats of his Progenitors, to be aduanced aloft in the stately hall and pallace *Æmilia* only, tooke order, that they should stand also at home in his owne house: and this also was a matter of right great consequence, beeing done according to the pattern and example of the martiall worthies in *Homer*: for within these shields & scutchions, resembling those which were vsed in old time in the battels before Troy, were represented the images of such as serued with them, ingrauen therein: for thereupon such shields took the name * *Clypeus*, chafed and ingrauen, not of the old word in Latine *Cluere*, which signifyeth to fight, or to be well reputed, as our thwarting Grammarians would with their subtle sophistrie seeme to etymologize and deriue it. Certes, this originall of shields and coats of armours, implied a braue mind and noble spirit full of vertue and valour, when euery mans shield shewed the liuely portrait of him that bare it in the warres. The Carthaginians were wont to make their targuets of beaten gold, and those likewise they caused to bee ingrauen with their own portraits, & carried the same with them to the wars. And verily, *Q. Martius* that worthy warrior, and reuenger of the 2 *Scipio's* in Spain, hauing defeated the Carthaginians & taken many of them prisoners, found among other spoils and pillage, the shield of *Asdrubal*, made in manner asore said: Which shield was erected & hung vp ouer the porch of *Iupiters* temple vpon Capitoll hill, and remained there vnto the first fire that consumed the temple. And seeing I am fallen vpon this poynt, namely, of erecting the armours woon from enemies, in publicke place; I may not passe over in silence the securitie and carelesse regard that our forefathers had in this behalfe:

* Quasi glypei,
id est quasi
i. d. Calens.

A behalfe: which was so great, that *M. Aufidius*, who farmed and vndertook the custody or keeping of the Capitoll, the temple, and all therein, the same yeare wherein *L. Manlius*, and *Q. Fulvius* were Consuls, and which was from the foundation of the city of Rome 575 yeares, aduertised the Senat, That those shields there, which for so long together were appointed & assigned thither by the Censors, were not of brasse, as they had been taken for, but of siluer.

Concerning pictures, and the first originall of painters art, I am not able to resolute and set downe any thing for certain: neither is it a question pertinent to my designe and purpose. I am not ignorant that the Egyptians do vaunt thereof, auouching that it was deuised among them and practised 6000 yeres, before there was any talk or knowledge thereof in Greece: a vain brag and ostentation of theirs, as all the world may see. As for the Greeke writers, some ascribe the B inuention of painting to the Sicyonians, others to the Corinthians. But they do all jointly agree in this, That the first pourtrait was nothing els but the bare pouring and drawing onely the shadow of a person to his iust proportion and liniments. This first draught or ground, they began afterwards to lay with one simple colour, and no more: which kind of picture, after that they fell once to more curious workmanship, they called Monochromaton, i. a pourtrait of one colour, for distinction sake from other pictures of sundry colours: which notwithstanding, yet this plaine manner of painting continueth at this day, and is much vsed. As for the linearie portrauing or drawing shapes and proportions by lines alone, it is said, that either *Phidias* the Egyptian, or els *Cleantes* the Corinthian was the inuenter thereof. But whosoever deuised it, certes *Arctides* the Corinthian, and *Telephanes* the Sicyonian, were the first that practised it: howbeit colours they vsed none, yet they proceeded thus far as to disperse their lines within, as well as to draw the pourtrall, and all with a coale and nothing els. And therefore their manner and order was to write also the names of such as they thus painted, and alwaies to set them close to the pictures. But the first that tooke vpon him to paint with colour, was *Cleophantus* the Corinthian, who (as they say) took no more but a peece of a red potsherd, which he ground into powder and this was all the colour that he vsed. This *Cleophantus*, or some other of that name, was he who by the testimony of *Cornelius Nepos*, as I will anon shew more at large, accompanied *Demetrius* the father of *Tarquinius Priscus* king of Rome, when he fled from Corinth to auoid the wrongs of *Cypsellus* the tyrant, who persecuted and oppressed him. But it cannot be so: for surely before this *Tarquines* time, the art of painting was grown to some perfection, euen in Italy: for D prooue wherof, extant there be at this day to be seen at Ardea within the temples there, antique pictures, and indeed more antient than the city of Rome: and I assure you, no pictures came euer to my sight, which I wonder so much at, namely, that they should continue so long, fresh, and as if they were but newly made, considering the places where they be, so ruinar and vncouered ouer head. Semblably, at Lanuvium there remaine yet two pictures of lady *Atalanta*, and queen *Helena*, close one to the other, painted naked, by one and the same hand: both of them are for beauty incomparable, and yet a man may discern the * one of them to be a maiden, for her modest and chaste countenance; which pictures, notwithstanding the ruins of the temple where they stand, are not a whit disfigured or defaced. Of late daies, *Pontius* lieutenant vnder *C. Caligula* the Emperor, did what he could to haue remoued them out of the place, and carried them away whole and entire, vpon a wanton affection and lustfull fancy that he cast vnto them: but the plaste or porget of the wall whereupon they were painted, was of that temper that would not abide to be stirred. At Cære there continue certaine pictures of greater antiquity than those which I haue named. And verily, whosoever shall well view and peruse the rare workmanship therein, will confesse, that no art in the world grew sooner to the height of absolute perfection than it, considering that during the state of Troy no man knew what painting was.

* Atalanta.

CHAP. IIII.

¶ Of Romanes that were excellent Painters. When the art of painting came first into credit and estimation at Rome. What Romanes they were that exhibited the pourtrails of their owne victories in pictures. And about what time painted tables made by strangers in forreine parts, were accepted and in great request at Rome.

AMONGST the Romanes also this Art grew betimes into reputation; as may appeare by the *Fabij*, a most noble and honourable house in Rome, who of this science were surnamed *Pictores*,

Pictores, i. Painters: & the first who was intituled with that addition, painted with his own hand G the temple of *Salus*; and this was in the 450 yeare after the foundation of our city: which painting continued in our age, even vnto the time of *Claudius Caesar* the Emperor, in whose daies the temple it selfe with the painting, was consumed with fire. Next after this, the workmanship of *Pacuvius* the Poet (who likewise painted the chappell of *Hercules* in the beast-market at Rome) was highly esteemed and gaue much credit to the art. This *Pacuvius* was *Ennius* the Poets sitters sonne: and being as he was a famous Tragædian besides, and of great name vpon the stage, the excellency of his spirit that way, much commended at Rome his handy-work and painting afore said. After him, I doe not finde that any person of worth and quality tooke penfull in hand and practised painting, vnlesse haply a man would nominate *Turpilus* a gentleman of Rome in our time, and a Venetian born, of whose workmanship there be many faire parcels of paynting H extant at this day in Verona: and yet this *Turpilus* was altogether left-hanued, and painted therewith; a thing that I doe not heare any man did before him. As for *Aterius Labeo*, a noble man of Rome, late Lord Pretour, and who otherwise had been vice-consull in Gallia, Narbonensis or Languedoc, who liued to a very great age and died not long since, he practised painting; and all his delight and glory that he tooke, was in fine and smal works of a little compasse: howbeit he was but laughed at, and scorned for that quality, and in his time the handicraft grew to be base and contemptible. Yet I thinke it not amisse to put downe for the better credit of painters, a notable consultation held by certaine right honourable personages as touching the Art, and their resolution in the end. And this was the case: *Q. Papius*, the little nephew of *Q. Papius*, who had bin Consull in his time and entred Rome in triumph, him I mean whom *C. Caesar* Dictator, made co-heire with *Augustus*, hapned to be born dumb; and *Messala* the great Oratour, made out of whose house the grandmother of this child was descended, being carefull how the boy should be brought vp; after mature aduise and deliberation, thought good that hee should by signes and imitation be trained vp in the art of painting, which counsell of his was approoued also by *Augustus Caesar*. And in truth, this yong gentleman being apt thereto, profited marvellous much therein, and died in his youth. But the principall credit that painters attained vnto at Rome, was, as I take it, by the means of *M. Valerius Maximus*, first surnamed *Messala*, who being one of the grand-seigneurs of Rome, was the first that proposed to the view of all the world, and set vp at a side of the stately hall or court *Hortilia*, one picture in a table, wherein hee caused to be painted that battell in Sicily wherein himselfe had defeated the Carthaginians and *K. Hiero*, which happened in the yeare from the foundation of Rome 490. The like also, I must needs say, did *L. Scipio*, and hung vp a painted table in the Capitol temple, containing his victory and conquest of Asia, whereupon he was surnamed *Asiaticus*. But (as it is said) *Africanus* although hee were his owne brother, was highly displeased therewith: and good cause he had to be angry and offended, because in that battell his own son was taken prisoner by the enemy. The like offence was taken also by *Scipio Emilianus*, against *Lucius Hostilius Mancinus*, who was the first that entered perforce the city of Carthage; for that hee had caused to be set vp in the market place of Rome a faire painted table, wherein was liuely drawne the strong scituation of Carthage, and the warlike means vsed in the assaulting and winning of it, together with all the particulars and circumstances thereof: which *Mancinus* himselfe in person sitting by the said picture, desciphered from point to point vnto the people that came to behold it; by which courtesie of his hee wooon the hearts of the people, in so much, as at the next election of Magistrates, his popularitie gained him a Consulship. In the publicke plaies which *Claudius Pulcher* exhibited at Rome, the painted clothes about the stage and Theatre (which represented building) brought this art into great admiration: for the workmanship was so artificiall and liuely, that the very rauens in the aire, deceived with the likenesse of houses, flew thither apace for to settle thereupon, supposing verily there had been tiles and crests indeed. And thus much concerning Painters craft, exercised in Rome.

To come now to forraign pictures, *Lu. Mummius*, surnamed *Achaicus* (for his conquest of Asia) was the first man at Rome, who made open shew of painted tables wrought by strangers, and caused them to be of price and estimation: for when as in the port-sale of all the bootie and pillage gotten in that victorie, king *Attalus* had brought one of them, wrought by the hand of *Arifides*, containing the picture only of god *Bacchus*, which was to cost him * six thousand sesterces, *Mummius* wondering at the price, & supposing that this table had some speciall and secret

cret propertie in it more than himselfe knew of, brake the bargain, called for the picture again, & would not suffer it to be caried away, notwithstanding *Attalus* complained much at the hard measure offered vnto him; and so he brought it with him to Rome, and dedicated it in the chappell of *Ceres*. And verily this I take to be the first painted table of a forreiners making, that euer was set vp in publick place at Rome. But after he had once begun, I see it was an ordinary thing to adorn and beautifie euen the common place also with such like: for vpon this occasion arose that pretty scoffe which was giuen by *Craffus* the Oratour, as hee pleaded vpon a time vnder the * old *Rostra*: for when there was a Witnesse produced to depose against him, whom hee would seeme to challenge and reprove, whereupon the party replied again and vrged him instantly in these termes, Speake out *Craffus*, and in the face of all this Court say, what kinde of person you would make me to be? Mary (quoth he again) I take thee to be such an one (pointing directly to a table hanging there by, wherein was painted a certain Frenchman yawning and lolling out his tongue full sauoredly.) In the same Forum or Grand place at Rome there stood sometime the picture of an old shepheard leaning vpon his crooke, as touching which (for that as it should seeme it was very workmanlike made) when a certain Dutch Embassador who beheld it, was demanded, at what price hee esteemed it; answered short & quick, What a question is that: I would not haue such an one (were he aliuie, as I see he is but painted) though he were giuen me for nothing. But if I should speake at once, who it was that gaue the greatest countenance vnto such tables in open view, I must needs say it was *Caesar* dictatour, who shined the pictures of *Ajax* and *Medea* in no meaner place than before the temple of *Venus Genetrix*. Next after him came *M. Agrippa*, a man by nature inclined rather to rusticitie than to delights, and more like a rude peasant than a ciuill gentleman. But surely there is extant a worthy Oration of his, and becomming the principal person of a whole city, as touching the open sale of all painted tables, statues, and images, that were in the hands of priuat men, and the setting of them vp in publicke places for to adorn the city: which no doubt had bin far better than to haue them banished (as it were) and sent as they be into the country, to beautifie manors and retyring houses of pleasure: howbeit as sterne and grim a fir as he was, he could find in his heart to bestow vpon two tables with the pictures of *Venus* and *Ajax*, 12000 sesterces, which he paid vnto the *Cyzicenes* for them. Also hee had caused to be set in marble stone in chafed, within the hottest part of his baths, many rich pictures of a small making, and couched in small tables, the which were taken away but a little before the said baths were repaired. But aboue all that euer were, *Caesar Augustus* the Emperour of famous memory, did set vp in the most frequented or perspicuous place of his Forum or stately hal, two excellent painted tables, one containing the liuely portrait of *VV*, the other of Triumph. He also dedicated the pictures of *Castor* and *Pollux*, besides others, whereof I will write in my catalogue of Painters: which he hung vp all within the temple of *Iulius Caesar* his father. The same *Augustus Caesar* inclosed within the wall of that Curia, which hee erected and consecrated in the common place called Comitium, two Tables painted; the one resembling the Forrest Nemea, in habit of a woman sitting vpon a lion, she carrieth in her hand a date tree; and there standeth by her an old man resting vpon his staffe, ouer whose head there was a pretty tablet hanging down as a label, from a chariot drawn by two horses, with this inscription, *Nicias me inuicit*; i. *Nicias* inamelled or wrought me with fire: for that verb [*inuicit*] it pleased him to vse. As for the other table, the admirable workmanship therein was this, An old grey-beard accompanied with his son, a youth exceeding like his father, saue onely for the difference in age, which appeared in the yong down that sprung vpon his cheeks and chin. A deuise there was besides of an *Egle* flying ouer their heads, clasping a dragon within her talons: and as it appeared by the superscription, *Philochares* was the workman. By which one table (if there were no more but it in the whole world) a man may make an estimate of the infinite power that is in this art, which could cause the Senat & people of Rome to take such pleasure so many yeares together to look vpon *Glaucion* and his son *Aristippus*, persons otherwise most base and contemptible, onely in respect of *Philochares* who painted them. As for *Tiberius Caesar* the Emperour, albeit hee was a prince of all other least curteous and affable, yet he delighted to hang vp those painted tables within the temple of *Augustus Caesar*, whereof I mean to write hereafter.

* *Subveneribus*, which some interpret *Tavernis*.

Quintilianus reporteth this otherwise.

or rankling matter that lieth secret within: for if a place be anointed therewith, when it is reduced into a liniment with water, in case it wax not dry, be sure there is some suppuration vnderneath.

As touching Sandaracha and Ochra, K. Iuba writeth, that they are to be found in Tapazus, an Island within the red sea; but that which we haue, was neuer brought from thence. How Sandaracha is ingendred, I haue said already in the discourse of mines. There is an artificiall and sophisticated Sandaracha, made of cerusse burnt in a furnace. The colour of Sandaracha ought to be fiery like a flame: a pound thereof is bought for 5 Asses, i. halfe a denier. Calcine this and Ruddle together, and of both, being concorporat in equall quantity, you shall haue the color called Sandyx. Howbeit, I do obserue in *Virgil*, that he took Sandyx for an herb, as may appear by this verse:

Sponte sua Sandyx pascentes vestiet agnos.
A ruddie fleece shall Sandyx yeeld,
To lambs, as they do graze in field.

This Sandyx to be bought and sold, carrieth but halfe the price of Sandaracha: neither bee there any colours more weighty than these in the ballance.

Among the artificiall and made colors, I reckon Scyricum, which as I haue already said, serueth for a good ground to take vermillion. The maner of making it, is to mix the best ruddle Si-nopis and this Sandyx together.

Painters black [called in Latine Atramentum] I count an artificiall colour, although I know there is a vitrioll or coperoze going vnder that name, which is minerall, and is ingendred two manner of waies: for either it issueth and ooseth out of the mine in maner of a salt humor or li- quor; or els there groweth an earth it self of a brimstone colour, which serueth for it, that it may be drawn out thereof. Some painters haue bin knowne, who for to get black, haue searched into sepulchres for the coles there, among the reliques and ashes of the dead. But in mine opinion, all these be but new deuises, and foolish irregular roies without any reason; for a man need seek no farther but to foot, and that made many waies, by burning either of rosin or pitch: in which regard, many haue built places and forges of purpose to burn them in; without any emissaries, tunnels, or holes, that the said foot or smoke may not get forth: but the best black in that maner made, comes of the smoke of torchwood. This fine foot is sophisticated with grosse foot that doth gather and ingender in forges, furnaces, & stoups: and this is that inke wherewith wee vse to write our books. Some there be who take the lees or dregs of wine, and when it is dried, boile it throughly; and they affirme, that if the wine were good whereof those lees came, the said inke or black will make a colour like Indico. And in truth, *Polygnotus* and *Mycen* (two as renowned painters as euer were) vsed no other black at all, but that which they made of the mare or refuse of grapes after they be pressed, & this they cal Tryginon. *Apelles* deuised a way by himself, to make it of yuorie or the elephants tooth burnt, and this they named therupon Elephantinum: as touching the black called Indicum, it is brought from India: but as yet I know not the maner either of the making or the ingendring of it. A kind thereof I see the diers do make, of that black florie which sticketh to their coppers. Also, there is a black made of torchwood burnt, & the coles that come of it punned to powder in a mortar. And here commeth to my mind the wonderfull nature of Curtle fishes, which do yeeld a black humor from them like to inke: howbeit, I do not find that painters or writers make any vse thereof. But all blacks whatsoever take their perfection by sunning: if it be writing inke, with gum (Arabick;) if to colour pargetting or walls, with glew among; and lookewhat blacke is dissolued and liquified in vineger, the same will hold well and hardly be washed off. And thus much of the ordinary colours low prized.

Of all the colours besides, which (as I said once before) for their high price the poore painters be serued with from their masters hands who set them on worke, the rich roset or purple red that is made of Tripolie or goldsmiths earth, is simply the best: for this Tripolie is commonly died together with purples; and no silk, wooll, or cloth, wil so soon take that tincture as it. The principal is that, which hauing had the floure of a farr, hath drunk the fil as it were, whiles the liquor is yet boiling, and the drugs within the caudron be in their verdure and haue not lost the heart. When this first Tripoly thus deeply died, is cast vp and taken forth, that which is put in next into the said liquor, is counted the second in goodnes; & so consequently by degrees; for the former euer taketh the higher die, & the oftner you dip therein, the weaker will the tincture be: which is the reason that the roset or purple red of Puteoli, is more commended, than either the

the Tyrian, Getulian, or Lacedemonian, notwithstanding from thence come the most rich and pretious pearls. The reason is, because the Tripoli in Puteoli is died most with the juice of the Magaleb berries among, which yeelds the gallant red, & besides, is forced to drink the tincture of Mader. That roset which is made at Canusium is the worst of all other, and carrieth the lowest price: a pound of roset costeth vsually * 30 deniers Roman. Painters or complexioners, when they would counterfeit a lustre or glosse of vermillion, lay a ground first with Sandyx, and then charge roset vpon it with the white of an egg: but if they be desirous to make a purple colour, the first course or ground is azur, and straitwaies they come vpon it with * roset and the white of an egg aboue said. After this rich and liuely roset or purple red, Indico is a colour most esteemed: out of India it comes, wherupon it took the name; and it is nothing els * but a slimy mud cleauing to the some that gathereth about canes and reeds: while it is punned or ground it looketh black, but being dissolued, it yeelds a wonderfull lovely mixture of purple and azur. There is a second sort of it found swimming vpon the coppers or vats in purple Diers worke-houses: and in truth, nothing els but the very some or scum that the purple casts vp as it boileth, in maner of a florey. Some there be that do counterfeit and sophisticat Indico, selling in stead thereof pigeons dung, Selinusian earth, and Tripoli, died and deeply coloured with the true Indico: but the prooffe thereof is by fire, for cast the right Indico vpon liue coles, it yeeldeth a flame of most excellent purple, and while it smoketh, the fume senteth of the sea; which is the reason that some do imagine it is gathered out of the rockes standing in the sea. Indico is valued at 20 denarij the pound. In physicke there is vse of this Indico, for it doth assuage swellings that doe stretch the skin: it represseth violent rheums and inflammations, and drieth vlcers.

The land of Armenia doth furnish vs with the colour verd d' azur, and of that country it is named Armenicus: a stone it is that is likewise died before it can die, in manner of Borrax or verd d' terre: the best is the greenest, & yet withall it doth participat the colour of azur, in which regard it may properly be called Verd d' azur. In times past a pound of it was held at 300 Sesterces: but since there was found in Spain a kind of sand that would take the like tincture and do as well, the price hath bin well abated, and is come downe to six deniers. All the difference between this colour and azur is this, for that it stands more vpon the white, which causeth this colour to be lighter and weaker. The only vse that it hath in physick, is to nourish hairs, & especially those of the eie lids.ouer and besides all these colours aboue named, there be two more newly come vp, and those beare but a very low price; to wit, the green called Appianum, & oft times it is taken for Borrax or Verd d' terre, as if there were not other things enough that did counterfeit and resemble it. Made it is of a certain Greene chalky earth, & is worth but one Sesterce a pound. The second new colour is a white, called Anulare, being that which in womens pictures giues a lightfom carnation white: this also is made of a kind of chalk, & certain glassy gems or bugles, which the common sort vse to weare in rings, & thereupon is called Anulare.

CHAP. VII.

What Colours refuse to be layd vpon some grounds: with what colours they painted in old time: and when the fight of sword-fencers was first proposed to be seen at Rome.

OF all colours, Rofer, Indico, Azur, Tripoli or Melinum, Orpiment, white lead or Cerusse, loue not to be laid vpon plaister-work or any ground, while it is moist; & yet wax will take any of these colours aboue said, to be imploied in those kind of works which are wrought by fire (so it be not vpon plaister, parget, & wals, for that is impossible) whether they be inamel or damaskd; yea and in their painting of ships at sea, as well hulks & hoies of burden, as gallies and ships of war: for now wee are come (forsooth) to inamel and paint those things that are in danger to perish & be cast away euery houre: so as we need not maruel any longer, that the coifin going with a dead corps to a funeral fire, is richly painted: and we take a delight when wee mind to fight at sea, to sail with our fleet gallantly dight & intriched with colours, which must cary vs into dangers, either to our own death, or to the carnage of others. And when I consider so many colours, & those so variable, as be now adaies in vse, I must needs admire those artificers of old time; and namely of *Apelles*, *Echion*, *Meclanthius*, and *Ticomachus*, most excellent painters, and whose tables were sold for as much apiece, as a good town was worth; and yet none of these vsed aboue foure colours in all those rich and durable workes. And what might those be?

Of all whites they had the white Tripoli of Melos, for yellow ochres they took that of Athens: for reds, they sought no farther than to the red ochre or Sinopie ruddle in Pontus: & their black was no other than ordinarie vitriol or shoemakers black. And now adaies, when we haue such plenty of purple, that the very walls of our houses be painted all ouer therewith, when there cometh from India store enough not only of Indico, which the mud of their riuers do yeeld, but also of Cinnambre, which is the mixed blood of their fel dragons and mighty elephants, yet among all our modern pictures we cannot shew one faire piece of worke: insomuch as wee may conclude, All things were done better then, notwithstanding the scarcitie that was of stufte and matter. But to say a truth, the reason is: Given wee are now (as I haue oftentimes said) to esteem of things that be rich and costly, neuer regarding the art that is imployed about them. And here I thinke it not amisse to set down the outrageous excesse of this age, as touching pictures. Nero the emperor commanded, that the portrait of himselfe should be painted in linnen cloth, after the maner of a gyant-like colosse 120 foot high, a thing that neuer had been heard or seen before. But see what became of it! when this monstrous picture (which was drawne and made in the garden of Marius) was don and finished, the lightning and fire from heauen caught it, and not only consumed it, but also burnt withall the best part of the building about the garden. A slaue of his infranchising (as it is wel known) when he was to exhibit at Antrium certain solemnities, and namely a spectacle of sword-fencers fighting at sharp, caused all the scaffolds, publique galleries, and walking places of that city to be hung & tapissed with painted cloths, wherein were represented the liuely pictures of the sword-players themselves, with all the wiffers and seruitors to them belonging. But to conclude, the best and most magnanimous men, that for many a hundred yeares our country hath bred, haue taken delight (I must needs say) in this art, and set their minds vpon good pictures. But to portray in imagery tables and painted cloth the publick shews of fencers & sword-plaiers, and to set them vp to be seen in open place to the view of the world, began by C. Terentius a Lucan: for this man to honour his grandfather, who had made him his own son by adoption, exhibited a shew for three days together of thirty paire of such fencers fighting with vnrebat swords; and a faire painted table which carried the liuely resemblance of this spectacle, hee set vp and dedicated within the sacred groue of Diana.

CHAP. VIII.

This argument
or title reacheth to many
chapters following.

¶ The antiquitie of Painting, and the severall ages wherein the famous Painters liued. A survey of excellent Pictures, and the Artificers that made them, together with the prices that their workmanship was valued at: and no table pictures to the number of 305.

Now will I after a cursorie sort run through all the famous professors and Artizans in this kind, and that with as great breuity as possibly I can; for the scope I haue proposed to my selfe tends another way: and therefore let not the Reader think much if I do but touch the names of some, as it were passing by, and by occasion of others whose catalogue I meane to deliuer. Howbeit, in making this hast, my purpose is not to omit any excellent piece of worke which is worth the remembrance and relation, whether the same be extant at this day, or lost and perished. Where I must aduertise the readers, that in this argument my meaning is not to stand much vpon the authoritie of Greeke writers, who indeed deliuer no certitude, nor agree in their records as touching this point (notwithstanding that they would seeme diligent in that behalfe) and namely, in that they haue written, That the excellent painters flourished so many Olympiads after the famous Imageurs; and haue nominated for the first and chiefe to haue liued in name, about the time of the 90 Olympiad: whereas this is for certain reported, that Phidias himself was a painter in the beginning, and that the noble shield of Minerva in Athens was by him painted: besides, this is confessed and resolved vpon for a truth, that Panaus his brother liued in the 83 Olympias, and painted the inside of the said shield; who also in another scutcheon of Minerva, which Colores the apprentice of Phidias had made, as also in making the statue of Iupiter Olympius, wrought with the said Colores and helped him. But what should I dwell long in this matter? Is there any doubt made, that Candaules King of Lydia, the last of the race and family

A family of the Heracleide, who also was commonly called Myrsilus, bought the painted table which contained the battell of the Magnetes, and paid for it to Bularchus (the painter or workman thereof) as much gold as it came to in weight. See of what price and estimation pictures were euen in those daies! And needs it must be that this hapned about that age wherein K. Romulus liued: for the said K. Candaules died in the 18 Olympias, or as some write, in that very yeare that Romulus departed this life: at what time this skill of painting (if I be not much deceived) was in great request euery where, and growne already to an absolute perfection. Which being granted, as of necessitie it cannot be denied, euident and apparent it is, that the originall and beginning of this art, was much more antient: and that those painters who vied one colour and no more in their plain draughts called Monocromata (to wit, Hygieanon, Dinias, and Charmas) liued a good while before, although it be not recorded in any writer in what age precisely they flourished: as also that Eumarus the Athenian painter, who deuised first to distinguish male and female in painting, and besides, vndertook to draw with his pensill the proportion & shape of any thing that he saw, together with Cimon the Cleonæan, who followed his steps, and practised his inuentions, could not chuse but by a congruity & consequence be of more antiquity than Bularchus aforesaid, or the reign of Romulus & Candaules: this Cimon deuised the works called Catagrapha, i. pourtraits and images standing byas and side-long: the sundry habits also of the visage and cast of the cie, making them to look, some backward ouer their shoulders, others aloft, and some againe downward: his cunning it was to shew in a picture, the knitting of the members in euery ioint: to make the veins appeare how they branched and spread: and besides, the first hee was that counterfeited in flat pictures, the plaits, folds, wrinkles, and hollow lappets of a garment. As touching Phamaus the brother of Phidias, hee painted also the battell betwene the Athenians and the Persians, vpon the plains of Marathon; for now by this time were painters furnished in some sort with colours to their purpose, and the art was growne to such perfection, that in the picture resembling the said battell, the full personages were pourtraied most liuely, of the captains on both sides, to wit, Miliades, Callimachus, and Cynegyrus, for the Athenians, Datis also and Artaphanes, for the Barbarians or Persians.

CHAP. IX.

¶ The Painters that first entred into contention for to win the prize by their Art: and who deuised to paint with the pensill.

Moreouer, during the time that the aboue-named Panaus flourished, there were prizes proposed at Corinth and Delphos, for those painters that could win them: and the first that strived for the best game, was the said Panaus, who challenged Timagoras the Chalcidian vpon this occasion. That the same Timagoras had giuen him the foile before at the Pythian games, which also doth appeare by certain verses composed by Timagoras himselfe as touching that argument, which fauor of great antiquity. Whereby the error of Chronicles before said is manifestly conuincied, who haue failed much in the calculation of the times. Furthermore, besides these painters aboue rehearsed, others therewere of great name, and yet all of them before that 90 Olympiad whereof they write; as namely, Polygnotus the Thasian, who was the first that painted women in gay and light apparell, with their hoods and other head attire of sundry colours, and in one word, passed all others before him in deuises, for the bettering of this art. His inuention it was to paint images with their mouths open, to make them shew their teeth; and in one word, represented much variety of countenance, far different from the rigorous and heauy looke of the visage beforetime. Of this Polygnotus workmanship, is that picture in a table which now standeth in the stately gallerie of Pompeius, and hung sometime before the Curia or Hall that beareth his name, in which table he painted one vpon a scaling ladder, with a targuet in his hand, but so artificially it is done, and with such dexterity, that whoeuer looketh vpon him, cannot tell whether he is climbing vp or coming downe. All the painting of Apollo his temple at Delphos, was of this mans doing, who also beautified with pictures, the great gallery or walking place at Athens, which thereupon was called Poecile; and this he did gratis, and would not take one penny for it; whereas Mycon afore him, painted one part thereof, & was well paid for his workmanship, which liberrall mind of his, wan him the greater credit and honor besides: for by a decree from the Amphyctions (who are the lords of the publick counsel of state

in Greece) it was granted, that in all cities and towns of Greece wherefoever he came, he should be lodged and entertained of free cost. Besides that *Mycon* before mentioned, there was another of the name, distinguished only by this, that the former was called *Mycon* the elder, and this *Mycon* the younger, who had a daughter named *Timareta*, & she could paint likewise excellently. But to come now to that ninetieth Olympia, there flourished in that time *Aglaophon*, *Cephisodorus*, *Phrylus*, and *Euenor*, who was both father and master to *Parafius* that most renowned painter, of whom I purpose to speak in his rank when the time comes; all these were reputed very good artizans in their time, howbeit not so excellent that I should need stand long upon them or their workmanship, making haste as I do unto those glorious and glittering painters indeed, who shine as bright stars above all their fellows; among whom, *Apolloderus* the Athenian was the first that gave light, and he lived in the 93 Olympias: this man led the way to others, & taught them to expresse the favor and beauty of any thing, which he observed especially: of whom I may well and truly say, that he and none before him brought the penfill into a glorious name & especial credit. Of his making there is one picture, of a priest at his devotions, praying & worshipping; as also another representing *Ajax*, all on a flaming fire with a flash of lightning, which at this day is to be seen at Pergamus, as an excellent piece of worke. And verily before his daies there cannot be shewed a table of any ones painting worth the sight, and which a man would take pleasure to behold and looke upon any long time.

* For *Olympias* was counted the space of five years,

When this man had opened the dore once, and shewed the way to this art, *Zeuxis* of Heraclea entered in, and that was in the fourth yere of the 95 * Olympias: and now that the penill was taken in hand (for now I speak thereof) he seeing that it made good worke, followed on therewith, and by continuall practise brought the same to great perfection, whereby he wan much credit to the art, and reputation to himselfe. Some writers there bee, who range him wrong in the 89 Olympias, at which time it must needs be, that *Demophilus* the Himeræan and *Nefæus* the Thracian liued; for to one of them apprentice he was: but whether of the two was his master, there is some doubt made; and verily he excellent he proued in his art, that the abouenamed *Appollodorus* made verses of him; in which he signifieth, that *Zeuxis* had stollen the cunning from them al, and he alone went away with the art. He grew in proesse of time to such wealth by the means only of his excellent hand, that for to make shew how rich he was, when he went to the solemnity of the games at Olympia, he caused his owne name to be imbrodered in golden letters, within the lozenge worke of his clokes, whereof he had change, and which he brought thither to be seene. In the end, he resolu'd with himselfe to work no longer for mony, but to giue away al his pictures, saying, That he valued them aboute any price. Thus he bestowed vpon the Agrigentines, one picture of queen *Alcmena*; and to king *Archelaus* he gaue another of the rustical god *Pan*: there was also the pourtraict of lady *Penelope*, which he drew in colours; wherein he seemeth not only to haue depainted the outward personage and feature of the body, but also to haue expressed most liuely the inward affections and qualities of her mind: and much speech there is of a wrestler or champion of his painting, in which picture he pleased himselfe so well, that hee subscribed this verse vnder it, * *Invisurus aliquis facilius quam imitaturus, j.* Sooner will a man enuy me, than set such another by me. Which thereupon grew to be a by-word in euery mans mouth. One fitately picture there is of his workmanship, *Iupiter* sitting vpon a throne in his Majestie, with all the other gods standing by and making court vnto him. Hee pourtraied *Hercules* also as a babe lying in a cradle, and strangling two fell serpents with his hand, together with his mother *Alcmena*, and her husband *K. Amphytion* in place, affrighted both at the sight thereof. Howbeit, this *Zeuxis* as excellent a painter as he was, is noted for one fault and imperfection; namely, that the head and joints of his pourtraicts, were in some proportion to the rest somewhat with the biggest; for otherwise so curious and exquisite hee was, that when he should make a table with a picture for the Agrigentines, to be set vp in the temple of *Iuno Lacinia*, at the charges of the city, according to a vow that they had made, he would needs see all the maydens of the city naked; and from all that company he chose 5 of the fairest to take out as from feuerall patterns, whatsoeuer he liked best in any of them; and of all the louely parts of those five, to make one body of incomparable beaurty. Many draughts he made of one color, in white. There liued in his time *Timanthes*, *Androcycles*, *Eupompus*, and *Parasius*, who were his concurrents, and thought as well of themselves as he did.

* Grace Melius
μεμνησθαι τις
μὴ λησῇ, ὅτι μνησ-
ται: which
Iambick verse
some attribute
to Apollodorus.

СНАР. X.

¶ *Of birds deceived by pictures. What is the hardest point in the art of painting?*

Of those foure before named, *Parasus* by report was so bold as to challenge *Zeuxis* openly and to enter the lists with him for the victory, in which contention and triall, *Zeuxis* for prooffe of his cunning, brought vpon the scaffold a table, wherein were clusters of grapes so liuely painted, that the very birds of the aire flew flocking thither for to bee pecking at the grapes. *Parasus* againe for his part to shew his workmanship, came with another picture, wherein he had painted a linnen sheet, so like to a sheet indeed, that *Zeuxis* in a glorious brauery and pride of his heart, because the birds had approoued of his handy worke, came to *Parasus* with these words by way of a scorn and frumpe, Come on sir, away with your sheet once, that we may see your goodly picture. But taking himselfe with the manner, and perceiving his own error, he was mightily abashed, & like an honest minded man yeelded the victory to his aduersary, saying withall, *Zeuxis* hath beguiled poore birds, but *Parrhasius* hath deceiued *Zeuxis*, a professed artifice. This *Zeuxis*, as it is reported, painted afterwards another table, wherein he had made a boy carrying certaine bunches of grapes in a flasket, and seeing again that the birds flew to the grapes, he shook the head, and comming to his picture, with the like ingenious mind as before, brake out into these words, and said, Ah, I see well enough where I haue failed, I haue painted the grapes better than the boy, for if I had don him as naturally, the birds would haue bin afraid and neuer approached the grapes. He pourtraied also diuers pieces of earthen vessels in potterie, which onely were left behind in *Ambracia*, at what time as *Fuluius* surnamed *Nobilior*, removed the Muses from thence of his pourtraying, and brought them to Rome. Moreouer, there remaineth yet at Rome within the galleries of *Philippus*, the picture of *Helena*, wrought by the hand of *Zeuxis*: and in the temple of *Concord* another, resembling *Marsias* the Musitian bound to a tree.

As for *Parasus* before named, borne hee was at Ephesus, and inuented also diuers things of himselfe to the aduancement of this art: for the first he was that gaue the true symmetrie to a portraiture, and obserued the iust proportions: he first exa^tly kept the sundry habits and gestures of the countenance: he it was, that first stood vpon the curious workmanship of couching and laying the haire of the head in order: the lovely grace and beauty about the mouth and lips, he first exa^tly expressed: and by the confession of all painters that saw his worke, he wooon the praise and praise from them all in making vp the pourfils and extenuities of his linaments, which is the principall point and hardest matter belonging to the whole art: for to draw forth the bodily proportion of things, to haue also, yea, and to fill within, requireth (I confesse) much labour and good workmanship; but many haue bin excellent in that behalfe, many to pourfil wel, to make the extremities of any part, to mark duly the diuisions of parcels, & to giue enery one their iust compasse and measure is exceeding difficult; and few when they come to the doing of it, haue been found to attaine vnto that felicity. For the vtmost edge of a worke must fall round vpon it selfe, and so knit vp in the end, as if it shadowed somewhat behind, and yet shewed that which it seemeth to hide. In this so curious and inexplicable a point, *Antigonus* and *Xenocrates* both, who wrote as touching this art, haue giuen him the honour of the best; not onely confessing his singular gift herein, but also commending him for it. Many other plots and projects there doe remaine of his drawing, pourtraied as well in tables as vpon parchment, which serue as patters (they say) for painters to learn much cunning by. And yet for inward works, and to expresse the middle parts of a portraiture, he seemeth not so perfect, nor inuenerable to himselfe otherwise. There is a notable picture of his making, which he called * *Demon Atheniensium*, that is to say, * the Athenians, the common people of the Athenians; the deuise whereof was passing full of wit, and verie inuentiue: for his intention was in one and the same pourtrait, and vnder one object of the eye to expresse the nature of the people, variable, wrathfull, vnjust, and vnconstant; the same also he would haue to appeare exorable, milde, and pittifull; haughtie, glorious and proud, and humble, lowly, and submis; fierce and furious, and the same coward-like, and ready to run away: all these properties, I say, he represented vnder one cast of the eie. This workeman painted also *Theſeus*, which stood sometimes in the capitoll of Rome; a certaine Admirall likewise of a nauie.

naue armed with a corselet. In one table also which is at Rhodes, he depainted *Meleager*, *Hercules*, and *Perseus*. This table was thrice blasted with lightning; howbeit, the pictures were not defaced, but remained whole and entire as at the first: a miraculous thing, and that which maketh much for the credit of the picture. *Archigallus* was of his painting; a picture that *Tiberius* the Emperor tooke great pleasure in; and as *Enileo* mine author doth testifie, he esteemed it worth 60000 sesterces, and inclosed it within his bed-chamber. Moreouer, he counterfeited one *Gresia* a nourse, with her infant in her arms: he pourtraied *Philiscus*, and god *Bacchus*, with the goddesse *Vertue* standing by him: also two boies, on whom a man might see most liuely resembled, the carelesse and simplicity of that age: likewise a priest, attended vpon with a pretty boy, holding a censar in his hand, and a coronet.ouer and besides, two pictures there be of his handiwork, going vnder the name of *Hoplites*, i. armed: the one running in his armour in battel-wise, so as he seemeth all in a sweate: the other disarming himself, all wearied, so as a man would think his wind were gone, or that he drew it very short. Great praise there is of one table of his, wherein are depainted, *Aeneas*, *Castor*, and *Pollux*; also of another, which contained *Telephus*, *Achilles*, *Agamemnon* & *Vlysses*. An artisan full of work, & who would euer be doing one thing or other; but so arrogant withall, as no man euer shewed more insolency than he, in regard that hee was cunning and well thought of: which he knew well enough, and no man needed to tell him. In this proud spirit of his, he would take vpon him diuers titles and additions to his name: among others, he would call himselfe * *Abrodiatus*: and other words he vsed, whereby hee would make himselfe known that he was prince of painters, and the art by him made perfect and accomplished. But it exceedeth how vaine-glorious he shewed himselfe, in that hee gaue out, hee was in I right line descended from *Apollo*: also that the pourtrait of *Hercules*, which is in a table at *Lindos*, he drew from the very person of *Hercules* himselfe, answerable in all points to the proportion and lineaments of his body; who (by his saying) had appeared to him oftentimes in his sleep of purpose, that he might paint him liuely as he was. In this veine of vanity, being vpon a time put down by *Timanthes* the Painter at *Samos*, where, by the iudgement of all that were present, his picture representing *Ajax*, and the awarding of the armor of *Achilles* from him to *Vlysses*, was not thought comparable to another of *Timanthes* his making: I am ill apaid (quoth he) and sorry at the heart, for this noble knight and braue warrior *Ajax*, whose euill hap it is thus to be foiled once againe by so vnworthy a weight, and a far meener person than himselfe. He delighted also to paint small pictures in prety tables, and those representing wantonnesse and lecherie: and this he did (as he was wont to say) for his recreation, and as it were to breath himselfe when he had laboured hard at greater workes.

As for *Timanthes*, an excellent fine wit he had of his owne, & full he was of rare inuentions: he it was that made the famous picture of *Iphigenia*, so highly commended by eloquent orators: and to say a truth, his conceit therein was admirable: for when he had deuised that the poor innocent lady should stand hard at the altar, ready to be slain for sacrifice, and had painted those that were present about her, with heauy and sad countenance, weeping & wailing all for the instant deatch of this young princeesse, and her vnckle *Menelaus* about the rest, full of sorrow and lamentation, and shewing the same as much as possibly might be: hauing by this time spent in them all the signes that might testifie the hearts griefe, and that he was come to pourtray her own father *Agamemnon*, he represented his visage couered with a veil, for that he was not able to expresse sufficiently the extraordinary sorrow about the rest which he had to see his own daughter sacrificed, and her guiltlesse blood spilt. Other pieces of worke there be, patternes all of singular wit: among the rest, he deuised within a very small table, a Cyclops lying a sleep: and yet because he would seeme euen in that little compasse to shew his giant-like bignesse, hee deuised withall to paint little euilish Satyres hard by, and those taking measure of one of his thumbes with long perches. In sum, so inuentiue he was, that in the works which passed through his hand, a man shall euer conceiue & vnderstand some hidden thing within more than is painted without: for albeit a man shall see in his pictures as much art as may bee, yet his wit went alwaies beyond his art. Moreouer, his picture of a prince was thought to be most absolute, the majesty whereof is such, that all the art of painting a man, seemeth to be comprised in that one pourtrait. This piece of worke remaineth at this day within the temple of *Peace*, in *Rome*.

In this age flourished *Euxenides*, and taught *Aristides* his cunning, who prooued afterwards a singular workeman. *Eupompus* also trained vp *Pamphilus* the painter vnder him, whose apprentife

A was *Apelles*. There is a fine picture of *Eupompus* his making, to wit, one who had obtained the victorie at the publique Gymnick exercises of a stuitie, painted naked as hee performed his deuoir, holding in his hand the branch of a date tree. This *Eupompus* was of such authoritie; that whereas before his time there were but two kinds of pictures, to wit, *Helladicum*, i. the Greekish; and *Asiaticum*, i. Asiatick, he brought in a new diuision, and made 3 distinct members thereof: for in loue of him, because he was a Sicyonian born, the foresaid *Helladicum* being parted in twain, there arose three seuerall sorts, the *Ionian*, *Sicyonian*, and *Attick*.

As for *Pamphilus*, renowned he was for painting a confraternity or kindred, the battel fought before *Phlius*, and the victorie of the Athenians: semblably, of his making is the picture of *Vlysses* in a punt or small bottom. Himselfe was a Macedonian borne, but of all painters, the first that gaue his mind to other good literature, and especially to Arithmetick & Geometry, without the insight of which two sciences, hee was of opinion, that vnpossible it was to be a perfect painter. He taught none his cunning vnder * a talent of siluer for 10 yeares together: and thus much paid *Apelles* and *Melanctus* vnto him for to learn his art. His authoritie brought to passe, that ordained it was at *Sicyone*, and so consequently throughout all Greece, that gentlemen sons or free-born should go to painting schoole, and there be taught first about all other things: the art *Diagraphice*, that is to say, the skil to draw and paint in box tables: and for the credit of Painters he brought to passe, that the art should be ranged in the first degree of liberall Sciences. And vnto this craft of painting hath bin alwaies of that good respect and so honored, that none but gentlemen and free-born at the first beginning medled therewith, yea, and afterwards honorable personages gaue themselves to the practise thereof, with this charge from time to time, to teach no slau the mysterie of painting, who by a strict and perpetuall edict were excluded from the benefit thereof. Neither shall you euer heare of any piece either of picture or grauerie and embossing, that came out of a seruile hand.

Furthermore, about the 170 Olympias there flourished *Echion* and *Therimachus*, two renowned painters: as for *Echion*, ennobled he is for these pictures, god *Bacchus*, a Tragedie and a Comedie, represented by painting: also *Semiramis*, who of a bond-maiden came to be a queen; an ancient woman carrying a torch or lamp, going before a yong wife newly wedded, and leading her to the bride-bed, who followeth with a modest, shamefast, and bashfull countenance most apparant to the eie.

D But what should I speake of these painters, when as *Apelles* surmounted all that either were before, or came after. This *Apelles* flourished about the 112 Olympias, by which time hee became so consummate and accomplished in the art, that hee alone did illustrate and enrich it as much, if not more, than all his predecessors besides: who compiled also diuers bookes, wherein the rules and principles, yea and the very secrets of the art are comprised. The speciall gift that he had was this, that he was able to giue his pictures a certain louely grace inimitable: and yet there were in his time most famous and worthy painters, whom he admired, whose works when hee beheld hee would praise them all, howbeit not without a but: for his ordinarie phrase was this, Here is an excellent picture, but that it wants one thing, & that is the *Venus* it should haue; which *Venus* the Greeks call *Charis*, as one would say, the grace: and in truth he would confesse, that other mens pictures had all things els that they should haue, this onely excepted; wherein hee was perswaded that he had not his peere or second. Moreouer, he attributed vnto himselfe another propertie, wherein hee gloried not a little, and that was, that hee could see to make an end when a thing was well done. For beholding wistly vpon a time a piece of worke of *Protagoras* his doing, wherein he saw there was infinite pains taken, admiring also the exceeding curiositie of the man in each point beyond all measure, he confessed & said, That *Protagoras* in euery thing else had done as well as himselfe could haue done, yea and better too. But in one thing he surpassed *Protagoras*, for that he could not skill of laying work vnto of his hand when it was finished well enough. A memorable admonition, teaching vs all, That double diligence and ouermuch curiositie doth hurt otherwhiles. This painter was not more renowned for his skill and excellencie in art, than he was commended for his simplicitie and singleness of heart: for as he gaue place to *Amphion* in disposition, so hee yielded to *Asclepiodorus* in measures and proportion, that is to say, in the iust knowledge how far distant one thing ought to be from another. And to this purpose impertinent it is not, to report a pretty occurrent, that fell between *Protagoras* and him: for being very desirous to be acquainted with *Protagoras*, a man whom hee had

* i. fine, delicate and sumptuous: for he would be in his purple, or his golden chaplets, his staffe tipped with gold, and his shoon buckles of the same.

* *Minoris est tanto annis decem: yet Budaeus readeth annis talentis decem, cents by the yearre.*

had neuer seen, and of his works, whereof there went so great a name, he imbarqued and sailed to Rhodes, where *Protagenes* dwelt: and no sooner was hee landed, but he enquired where his shop was, and forthwith went directly thither. *Protagenes* himselfe was not at home, only there was an old woman in the house who had the keeping of a mighty large table set in a frame, and fitted ready for a picture: and when he enquired for *Protagenes*, she made answer, that he was not within; and seeing him thereupon ready to depart, demanded what his name was, & who she should tell her master asked for him. *Apelles* then, seeing the foresaid table standing before him, tooke a pensil in hand and drew in colour a passing fine and smal line through the said table, saying to the woman, Tell thy master, that he who made this line enquired for him; and so he went his wayes. Now when *Protagenes* was returned home, the old woman made relation vnto him of this thar hapned in his absence; and as it is reported, the artificer had no sooner scene and beheld the draught of this small line, but he knew who had been there, and said withall, Surely *Apelles* is come to town; for vnpossible it is, that any but hee should make in colour so fine workmanship. With that hee takes me the pensil, and with another colour drew within the same line a smaller than it: willing the woman when hee went forth of dores, that if the party came againe, she should shew him what he had done, and say withall, that there was the man whom he inquired after. And so it fell out indeed, for *Apelles* made an errand againe to the shop, and seeing the second line, was dismaied at first and blushed withal to see himselfe thus ouercome; but taking his pensil, cut the foresaid colours throughout the length, with a third colour distinct from the rest, and left no room at all for a fourth to be drawn within it. Which when *Protagenes* saw, hee confessed that he had met with his match and his master both; and made all the haste he could to the haven to seek for *Apelles* to bid him welcome & giue him friendly entertainment. In memoriall whereof it was thought good both by the one and the other, to leaue vnto posterity this table thus naked without any more work in it, to the wonder of all men that euer saw it, but of cunning artificers and painters especially: for this table was kept a long time, and as it is well known, consumed to ashes in that first fire that caught *Cæsars* house within the Palatine hill: and verily we took great pleasure before that, to see it many times, containing in that large & extraordinary capacite that it had, nothing els but certaine lines, which were so fine and small, that vnnett or hardly they could be discerned by the eie. And in truth, when it stood among the excellent painted tables of many other workemen, it seemed a very blanke hauing nothing in it: howbeit as void and naked as it was, it drew many to it euen in that respect, being more looked vpon and esteemed better than any other rich and curious work whatsoeuer. But to come againe vnto *Apelles*, this was his manner and custom besides, which he perpetually obserued, that no day went ouer his head, but what businesse soeuer he had otherwise to call him away, he would make one draught or other (and neuer misse) for to exercise his hand and keepe it in vre, inso much as from him grew the prouerbe, *Nulla dies sine Linea*, i. Be alwaies doing somewhat, though you doe but draw a line. His order was when he had finished a piece of work or painted table, and layd it out of his hand, to set it forth in some open gallerie or thorow-fare, to be seen of folke that passed by, and himselfe would lie close behind it to hearken what faults were found there-with; preferring the iudgement of the common people before his owne; and imagining they would spy more narrowly, and censure his doings sooner than himselfe: and as the tale is told, it fell out vpon a time, that a shoemaker as he went by seemed to controlle his workmanship about the shoe or pantoffle that he had made to a picture, & namely, that there was one larcher fewer than there should be: *Apelles* acknowledging that the man said true indeed, mended that fault by the next morning, and set forth his table as his manner was. The same shoemaker coming againe the morrow after, and finding the want supplied which he noted the day before, took some pride vnto himselfe, that his former admonition had sped so well, and was so bold as to cauil at somewhat about the leg. *Apelles* could not endure that, but putting forth his head from behind the painted table, and scorning thus to be checked and reproued, Sirrha (quoth hee) remember you are but a shoemaker, & therefore meddle no higher I aduise you, than with shoes. Which words also of his came afterwards to be a common prouerbe, *Ne sutor ultra crepidam*. Ouer and besides, very courteous he was and faire spoken, in which regard King *Alexander* the Great accepted the better of him, and much frequented his shop in his owne person: for, as I haue said before, he gaue streight commandement, That no painter should bee so hardie as to make his picture but only *Apelles*. Now when the King being in his shop, would seeme to talke much

A much and reason about his art, and many times let fall some words to little purpose, bewraying his ignorance, *Apelles* after his mild manner, would desire his grace to hold his peace, & said, sir, no more words, for feare the prentise boies there that are grinding of colours, do laugh you to scorn: So reuerently thought the king of him, that being otherwife a cholericke prince, yet hee would take any word at his hands in that familiar sort spoken in the best part, and be neuer offended. And verily, what good reckoning *Alexander* made of him, he shewed by one notable argument, for hauing among his courtiers one named *Campaspe*, whom he fancied especially about the rest, in regard as wel of that affection of his as her incomparable beauty, he gaue commandement to *Apelles* for to draw her picture all naked: but perceiving *Apelles* at the same time to be wounded with the like dart of loue as well as himselfe, he bestowed her on him most frankly. By which example, hee shewed moreouer, that how great a Commander, and high minded a prince he was otherwise, yet in this mastering and commanding of his affections, his magnanimity was, more seen: and in this act of his he wan as much honor and glory, as by any victory ouer his enemies; for now he had conquered himselfe, and not onely made *Apelles* partner with him of his loue, but also gaue his affection clean away from her vnto him, nothing moued with the respect of her whom before he so dearly loued, that being the concubine of a king, she should now become the bedfellow of a painter. Some are of opinion, That by the patterne of this *Campaspe*, *Apelles* made the picture of *Venus* * *Anadyomene*. Moreouer, *Apelles* was of a kind bountifull disposition euen to other painters of his time, who commonly as concurrents, do enuie one another. And the first he was that brought *Protagenes* into credit and estimation at Rhodes; for at the first, his owne countrymen made no account at all of him (a thing ordinarily seen, that in our own country we are least regarded) but *Apelles*, for to countenance and credit the man, demanded of him what price he would set of all the pictures that he had ready made; *Protagenes* asked some small matter and trifle to speake of: howbeit, *Apelles* esteemed them at fifty talents, and promised to giue so much for them: raising a bruit by this means abroad in the world, that he bought them for to sel againe as his owne. The Rhodians hereat were moued and stirred vp to take better knowledge of *Protagenes*, what an excellent workeman they had of him: neither would *Protagenes* part with any of his pictures vnto them, vnlesse they would come off roundly and rise to a better price than before time. As for *Apelles*, he had such a dexterity in drawing pourtraits so liuely, and so neer resembling those for whom they were made, that hardly one could be known from the other; inso much, as *Appian* the Grammarian hath left in writing (a thing incredible to be spoken) that a certain Physiognomist or teller of Fortune, by looking onely vpon the face of men and women, such as the Greekes call *Metoposcopos*, judged truly by the portraits that *Apelles* had drawne, how many yeres they either had liued or were to liue; for whom those pictures were made. But as gracious as he was otherwise with *Alexander* and his train, yet he could neuer win the loue and fauor of prince *Ptolomeus*, who at that time followed the court of K. *Alexander*, and was afterwards king of Egypt. It fortuneth, that after the decease of *Alexander*, and during thereigne of K. *Ptolomeus* aforesaid, this *Apelles* was by a tempest at sea cast vpon the coast of Egypt, and forced to land at Alexandria; where, other painters that were no well willers of his, practised with a jugler or jester of the kings, and suborned him in the kings name to train *Apelles* to take his supper with the king. To the court came *Apelles* accordingly, and shewed himselfe in the presence. *Ptolomeus* hauing espied him, with a stern and angry countenance demanded of him what he made there, and who had sent for him; and with that shewed vnto him all his seruitors who ordinarily had the inuiting of ghefts to the kings table, commanding him to say which of all them had bidden him: whereat *Apelles*, not knowing the name of the party who had brought him thither, and beeing thus put to his shifts, caught vp a dead cole of fire from the hearth thereby, and began therewith to delineate and draw vpon the wall the proportion of that couliner before said. He had no sooner poufled a little about the visage, but the king presently tooke knowledge thereby of the party that had played this pranke by him and wrought him this displeasure. This *Apelles* drew the face of K. *Antiochus* also, who had but one eie to see withall: for to hide which deformity and imperfection, he deuised to paint him, turning his visage a little away, and so he shewed but the one side of his face, to the end, that whatsoeuer was wanting in the picture, might be imputed rather to the painter, than to the person whom he portrayed. And in truth, from him came this inuention first to concele the defects & blemishes of the visage, and to make one halfe face onely, when it might be represented full and whole, if it pleased

* *Ortomanus* rising out of the sea.

pleased the painter. Among other principall pieces of worke, some pictures there be of his making, resembling men and women lying at the point of death, and euen ready to gasp and yeeld vp the ghost. But of all the pictures & portraitures that he made, to say precisely which be the most excellent, it were a very hard matter: as for the painted table of *Venus*, arising out of the sea (which is commonly knowne by the name of *Anadyomene*) *Augustus Caesar*, late Emperour of famous memory, dedicated it in the temple of *Iulius Caesar*, his father; which hee enriched with an Epigram of certaine Greeke verses, in commendation as well of the picture, as the painter. And albeit the artificiall contriuing of the said verses went beyond the worke, which they seemed to praise, yet they beautified and set out the table not a little. The nether part of this picture had caught some hurt by a mischance; but there neuer could be found that painter yet, who would take in hand to repaire the same and make it vp again as it was at first: so as, this wrong & harm done vnto the work, and continuing still vpon the same, turned to the glory of the workman. This table remained a long time to be seen, vntill in the end for age it was worm-eaten and rotten: in such sort, as *Nero* being Emperour was faine to set another in the place, wrought by the hand of *Doratheus*. But to come againe vnto *Apelles*, he had begun another picture of *Venus Anadyomene*, for the inhabitants of the Island Cosor Lango, which hee minded should haue surpassed the former: howbeit, before he could finish it, surprised he was with death, which seemed to enuie so perfect workmanship: and neuer was that painter knowne to this day, who would turne his hand to that piece of worke, and seeme to go forwarde where *Apelles* left, or to follow on in those traicts and liniments, which he had pourfild and begun. One picture he drew of * *K. Alexander* the Great, holding a * thunderbolt and lightening in his hand, which cost twentie talents of gold, and was hung in the temple of *Diana* at Ephesus. And verily, this deuise was so finely contriued, that as *Alexanders* fingers seemed to bear out higher than the rest of the work, so the lightening appeared to be clean without the ground of the table, and not once to touch it. [But before I proceed any farther, let the readers take this with them, and alwaies remember, that these rich and costly pictures were wrought with foure colours and no more.] And for the workmanship of this picture, the price thereof was paid him in good gold coine by weight and measure, and neuer told and counted by tale. Of his handyworke was the picture of a *Megabyzus* or guelded priest of *Diana* in Ephesus, sacrificing in his pontificall habits & vestiments accordingly. Also the counterfeit of prince *Clytus*, armed at all pieces (saue his head, mounted on horse-back and hasting to a battell, calling vnto his squire or henxman for his helmet, who was portraied also reaching it vnto him. To reckon how many pictures *Apelles* made of *K. Alexander* and his father *Philip*, were but losse of time, and a needlesse discourse. But I cannot omit the painted table, containing the pourtrait of *Abrons* that wanton and effeminate person; which piece of work the Samians so highly extoll and magnifie: ne yet another picture of *Menander* the K. of Caria, that he made for the Rhodians, and which they so much admire. Neither must I forget the counterfeit of *Ancus*: of *Gorgosthenes* the Tragædian, which he made at Alexandria: or while he was at Rome, one table containing *Castor* and *Pollux*, with the image of *Victorie*, and *Alexander* the Great: Likewise another representing the counterfeit of *Warre* in person, bound with his hands behind at the backe, and *Alexander* the king mounted in a charriot triumphant: both which tables *Augustus* late Emperour of immortall memory, had dedicated modestly, and in simplicity of heart caused them to be hung vp in the most conspicuous places of his Forum or hall that he built: but when *Claudius Caesar* came to weare the diadem, he thought it more for the honour of *Augustus*, to scrape out the face of *Alexander*, as well in the one as in the other, and to set in the place the liuely image of the said *Augustus* to be seen. It is thought likewise, that the full pourtrait of *Hercules*, painted in a table, standing now in the temple of *Antonia*, was of his doing: an exquisite piece of worke no doubt, for notwithstanding that the backe part stand toward them that looke vpon it, yet it sheweth the entire visage, which is an exceeding hard matter: a man that beholdeth this *Hercules*, would think that the picture it selfe turned the face to be seen, which the painter seemed by the rest of the work to hide from the eie. Of his painting there is a * prince or worthy knight all naked, in which picture he seemed to challenge Nature: and to haue pourtraied every part so well, as shee her selfe could not haue framed the same better. There is or was at leastwise, a horse of his painting: which he pourtraied, to set against other horses painted by diuerse workemen, with whom he was entred into contention for the victory: in which triall, he appealed from the sentence of men to the judgement of foure-footed beasts.

* Of this picture *Apelles* was wont to say, That there were two *Alexanders*: the one begotten by *Philip*, who was a name: & the other painted by *Apelles*, and he was inimitable. * The manner was to expresse lightening, by three shafts bound together in the midst.

* Some thinke he meant the Hero & *Leander*: and they read, *Hero Leander* pinxit. He painted *Hero* and *Leander*.

even liuing horses indeed: for perceiuing that his concurrents were in fauor too mighty for him and that they were like to carry away the prize by corrupting the judges and vmpires, he caused liuing horses to be brought vp into the place; and hauing presented before them the pictures of his concurrents horses one by one, they seemed not to joy nor make toward them: but no sooner had he shewed * that of his owne pourtraying, but they fell all to neigh, as taking it for one of their fellows; which experiment serued euer after for a rule, to know indeed a good piece of workmanship in that kind. Moreover, he made a picture representing *Neoptolemus* the sonne of *Achilles*, in habit of a man of armes, sitting on horsebacke and riding against the Persians: likewise another, resembling *Archelams* with his wife and little daughter: also *K. Antigonus* armed before with a cuirace, & marching on foot with his horse of seruice led by him. Howbeit those Painters that are counted more skilfull and cunning than others, preferre before all other pieces of his work manship, one picture of the same king sitting vpon his horse; and another which doth represent the goddess *Diana*, among a consort or company of other virgins at sacrifice; whom he depainted so artificially in this table, that he seemeth to haue surmounted *Homer* the Poet, who oftsoons in his poems describeth the same maiden *Diana* with her traine of yong damosels. What would you haue more? he would seeme to pourtray those things which indeed cannot be pourtraied, crackes of thunder, leames or flashes of lightening, and thunderbolts; all which pictures go vnder the name of *Brontes*, *Astrape*, and *Ceraunobolus*; his inuentions serued as precedents and patterns for others in that art to follow. One secret he had himselfe, which no man was euer able to attaine and reach vnto, and that was a certain blacke vernish which he vnto lay vpon his painted tables when he had finished them; which was so finely tempered, and withall driuen vpon the worke so thin, that by the repercussion thereof it gaue an excellent glosse and pleasant lustre to the colors; the same also preserued the picture from dust and filthinesse: and yet a man could not perceiue any such thing at all, vnlesse he held the table close at hand, and looked very neere. And great reason hee had besides to vse this vernish, namely, lest the brightnesse of the colours without it, might offend and dazzle the eyes, which now beheld them as it were a farre off through a glasse stone; and withall, the same gaue a secret deeping and sadnesse to those colours which were too gay and gallant. And thus much may suffice for *Apelles*.

In his time liued *Aristides* the Thebane, a famous painter. This *Aristides* was the first that would seeme to paint the conceptions of the mind, and to expresse all the inward dispositions and actions thereof, which the Greeks call *Ethe*: yea, the very perturbations and passions of the soule he represented in picture: howbeit, his colours were vnpleasant and somewhat too harsh: He represented in a table the winning of a towne by force, wherein was pourtraied most liuely a little infant winding it selfe and making pretty means to creep vnto the mothers pap, who lay a dying vpon a mortall wound receiued in her brest; but it passed, how naturally the poor womans affection was expressed in this picture; for a man might perceiue in her, very sensibly, a certaine sympathie and tender affection yet, vnto her babe, albeit shee were now in her deadly pangs and going out of the world, tearing euen then, least the childe should meet with no milke when shee was dead, but in stead of sucking it, fall to lick her blood, and doe it selfe hurt and iniurie: this painted table *K. Alexander* the Great translated from Thebes to Pella, the city where himselfe was borne. The same *Aristides* painted the counterfeit of a battell betwene the Greeks and the Persians: in which table, he comprised an hundred fighting men: his bargain was to haue of *Mnason* the tyrant or K. of Elate, for euery personage that hee made * ten pounds of siluer. Hee pourtraied the running in a race of charriots drawn with four steeds, so liuely, that a man would haue thought he saw the wheels running about. And as for an humble suter or suppliant, he depainted him so naturally, making his petition and following it with such earnestnesse, that hee seemed in maner to cry with an audible voice from the very picture. He counterfeited in a painted table, hunters with their venison that they had taken, *Leontion* also the painter; and a woman vnder the name of *Anapaomene*, dying for kind heart and the loue of her brother: likewise prince *Bacchus*, and lady *Ariadne* his wife, which be pictures much looked vpon at Rome in these dayes within the temple of *Ceres*; a plaier besides in a tragædy, accompanied with a boy (& these are to be seen in the chappell of *Apollo*) howbeit, this table hath lost the beauty which it first had, through the folly of an vnskillfull painter, vnto whom it was put forth to be scoured and refreshed by *M. Innins* the Pretor, against the solemnitie of the Apollinar games. Moreover, there was

to be seen in the chappell of *Faith* within the Capitoll, the picture of an old man with an harp, teaching a boy to play; which was of *Aristides* his making; but there is a man lying sicke in his bed, of his painting, that cannot be praised sufficiently. And verily to conclude with his owne word, so accomplished he was in this art, that *K. Attalus* (by report) gaue vnto him for one table with the picture, one hundred talents of siluer.

About the same time, there flourished (as I haue said before) *Protogenes*; born he was at *Cynos* a city in Cilicia, and subiect to the Rhodians: he was so exceeding poore at the beginning, and withall, so studious, intentiue, and curious in his worke without all end, that fawer pictures by that means came out of his hands, and himselfe neuer rife to any great wealth. Who it was that taught him his art, it is not knowne for certaine: but some say that he painted ships vntill he was 50 yeres of age: which they collect by this argument, That when at Athens in the most conspicuous and frequented place of the city, he was to adorne with pictures the porch before the temple of *Minerva*, wherein he depainted that famous ** Paralus* and ** Hemionis*, which some call *Nausicaa*, he deuised certaine borders without: wherein he painted among those by-works (which painters call *Parerga*) certaine small gallies and little long barks, to shew thereby the small beginnings of his art, and to what height of perfection hee was come to in the end, when his workmanship was thought worthy to be seen in the most eminent place of that citie. But of all the painted tables that euer he wrought, that of ** Ialysus* is accounted the principall, which is now dedicated at Rome within the temple of *Peace*: whiles he was in painting this *Ialysus*, it is said, that he liued only vpon steeped Lupines, which might serue him in stead of meate and drinke both, to satisfie his hunger and quench his thirst: and this hee did, for feare least too much sweetnesse of other viands should cause him to feed ouer liberally, and so dul his spirit and senses. And to the end that this picture should be lesse subiect to other injuries, and last the longer, he charged it with foure grounds of colours, which he laid one vpon another: that euer as the vpper coat went, that vnderneath might succede in the place and shew fresh againe. In this table, the pourtraiture of a dog is admirable and miraculous; for not only art, but fortune also met together in the painting thereof; for when he had done the dog in all parts to the contentment of his owne minde (and that ywis was a very hard and rare matter with him) & could not satisfie and please himselfe in expressing the froth which fell from his mouth as he panted and blowed almost windlesse with running, displeased he was with the very art it selfe: and albeit he thought that he had bin long enough already about the said froth, and spent therein but too much art and curiositie, yet somewhat (he wist not what) was to be diminished or altered therein: the more workmanship and skill that went thereto, the farther off it was from the truth indeed and the nature of froth (the onely marke that he shot at:) for when he had done all that he could, it seemed still but painted froth, and not that which came out of the dogs mouth, whereas it should haue been the very same and no other, which had been there before. Hereat he was troubled and vexed in his mind, as one who would not haue any thing seene in a picture of his, that might be said like, but the very same indeed. Many a time he had changed his pensill and colours, as often, he had wiped out that which was done, and al to see if he could hit vpon it, but it would not be, for yet it was not to his fantasie. At the last, falling clean out with his own workmanship, because the art might be perceived in it, in a pelting chafe he flings me the sponge-full of colors that he had wiped out, full against that unhappy place of the table which had put him to all this trouble: but see what came of it! the sponge left the colours behind, in better order than hee could haue laied them, and in truth, as well as his heart could wish. Thus was the froth made to his full mind, and naturally indeed by meere chance, which all the wit and cunning in his head could not reach vnto. [After whose example, *Nealees* another painter did the like, and sped as well, in making the froth falling naturally from a horses mouth; namely, by throwing his sponge against the table before him, at what time as he painted a horse-rider cheering and cherking vp his horse, yet reining him hard as he champed vpon his bit.] Thus (I say) Fortune taught *Protogenes* to finish his dog. This picture of *Ialysus* and his dog, was of such name and so highly esteemed, that *K. Demetrius* when hee might haue forced the city of Rhodes, on that side onely where *Protogenes* dwelt, forbore to set it on fire, because he would not burne it among other painted tables: and thus for to spare a picture, he lost the opportunitie of winning a towne. During this strait siege and hot assault of Rhodes, it chanced that *Protogenes* himselfe was at worke in a little garden that he had by the townes side, euen as a man would say within the compasse of

* Names of gallies;

* A worthy knight, sonne of Achimus.

Demetrius

Demetrius his camp. And for all the fury of warre and the daily skirmishes within his sight and hearing, yet he went on still with his workes that he had in hand, and neuer discontinued one hour. But being sent for by the king, and demanded, How he durst so confidently abide without the walls of the city in that dangerous time? he answered, That he knew full well that *Demetrius* warred against the Rhodians, and had no quarrell to good Arts and Sciences. The king then (glad in his heart that it lay now in his hand to saue those things, which he had spared before, and whereof he had so good respect) bestowed a very strong guard about *Protogenes* for his better safety & security: and as great an enemy as he was to the Rhodians, yet he vsed otherwhiles to visit *Protogenes* of his owne accord in proper person, because he would not esteemes call him out of his shop from worke: and setting aside the maine point and occasion of lying before Rhodes, which was the winning thereof, the thing that hee so much desired; euen amid the assaults, skirmishes, and battels, hee would finde time to come to *Protogenes*, and took great pleasure to see his worke. By occasion of this siege and hostilitie, arose this tale moreover of one table of his making, That all the whiles he painted it, the dagger (forsooth) was set to his heart, and a sword ready to cut his throat: and it was the picture of a Satyre playing vpon a paire of bag-pipes, which he called ** Anapauiomenos*: by which name, as well as by the thing it selfe, hee would seem to signifie, that he tooke but little thought and care during those dangerous troubles. Moreover, he made the picture of lady *Cydicpe*, and of ** Tlepolemus*: he painted also *Philiscus* a writer of Tragedies, sitting close at his study meditating and musing. Also, there be of his making, a wrestler or champion, *Antigonus* the king, and the * mother of *Aristotle* the Philosopher, who also was in hand with *Protogenes*, persuading him to busie himselfe in painting all the noble acts, victories, and whole life of king *Alexander* the Great, for euerlasting memoriall and perpetuities: but the vehement affection and inclination of his minde stood another way, and a certaine itching desire to search into the secrets of the art, tickled him, and rather drew him to these kinds of curious workes whereof I haue already spoken. Yet in the later end of his daies, he painted *K. Alexander* himselfe, and god *Pan*. Ouer and besides this flat painting, he gaue himselfe greatly to the practise of founderie, and to cast certaine images of brasse, according as I haue already said.

At the very same time liued *Aesclepiodorus*, whom for his singular skill in obseruing symetries and iust proportions, *Apelles* himselfe was wont to admire. This Painter pourtraied for *Mnason* the foresaid king of the Elateans, the 12 principall gods, and receiued for euery one of them 300 pound of siluer. The said *Mnason* gaue vnto *Theomastus* for painting certaine Princes or Worthies, one hundred pounds apiece.

In this rank is to be ranged *Nicomachus*, son and apprentice both to *Aristodemus*. This *Nicomachus* pourtraied the rauishing of *Proserpine* by *Dis* or *Pluto*: which picture standeth in a table within the Chappell of *Minerva* in the Capitoll, about the little cell or shrine of *Inuentus*. In the same Capitoll, another table there is likewise of his making, which *Plancus* (Lord Generall of an army for the time being) had there dedicated and set vp: the same doth represent *Victorie* catching vp a triumphant chariot drawn with four horses aloft into heauen. He was the first that pourtraied prince *Plinies* in a picture, with a * cap vpon his head. He painted also *Apollo* and *Diana*: *Cybele* likewise the mother of the gods, sitting vpon a Lyon: of his workmanship is the table, representing the religious priestesses of *Bacchus* in their habite, together with the wanton Satyres creeping and making toward them. Semblably, the monstrous meermaid *Scylla*, which at this day is to be seen at Rome within the temple of *Peace*. A ready workman he was, & you shall not heare of a painter that had a quicker hand than he, at his worke: for prooffe whereof, this voice goeth of him, That hauing vnderaken for a certain sum of money to *Aristrates* the tyrant of Sicyone, to paint a monument or tombe which he caused to be made for *Telestes* the Poet, and to finish it by such a day appointed and set downe in the covenants of the bargain, he made no great hast to go about it, but came some few daies before the expiation of the prescript term for to beg in the same worke: whereat the tyrant was wroth, and menaced to punish him for example: howbeit, he quit himselfe so well, and followed his worke with such wonderfull celeritie, that in few daies space he brought it to an end: and yet the art and workmanship thereof was admirable. Vnder him were brought vp as apprentices, his brother *Aristides*, his owne son *Aristocles*, and *Philoxenus* the Eretrian.

This *Philoxenus* made one painted table for *Cassander* the king, containing the battel between

A a a 2

Alexander

* One at rest, or reposing himselfe. Some reade, *Triptolemus*.

* *Phaëcia*.

* In token of nobility, as *Pierius* noteth in his Hieroglyphicks.

Alexander the Great and *K. Darius*, which for exquisite art commeth not behind any other what soeuer. One picture there is of his doing, wherein he would seeme to depaint lascious wantonnesse, which he pourtraied by 3 drunken Sylenes making merry and banquetting together. He gaue himselfe also to the speedy workmanship of his master before him, and for that purpose inuented other compendious means of greater breuitie to make riddance and quicke dispatch with his pencill.

With these may be sorted *Nicophanes* also, a proper, feat, and fine workman, whose manner was to take out all pictures and paint them new againe, thereby as it were to immortalize the memory of things: a running hand hee had of his owne, and besides, was by nature hasty and furious: howbeit, for skill and cunning there were but few comparable vnto him. In all his workes hee aimed at loftinesse and grauity: so that a man may attribute the stately port that is in this Art, vnto him and no other.

As touching *Persus* apprentice to *Apelles*, & who wrote a book to him of the very art) he came far short both of his master & also of *Zeuxis*. As for *Aristides* the Theban, who also liued in this age, he brought vp vnder him his two sons, *Niceros* and *Aristippus*. This *Aristippus* pourtraied a Satyre crowned with a chaplet, and carrying a goblet or drinking cup: he taught *Antonides* and *Euphranor* his cunning; of whom I will write anon: for meet it is to annex vnto the rest, such as haue bin famous with the pencill in smaller works and lesse pictures; among whom I may reckon *Pyreicus*, who for art and skill had not many that went before him; and verily of this man, I wot not well, whether he debased himselfe and bare a low sale, of purpose, or no? for surely his mind was wholly set vpon painting of simple and base things: howbeit, in that humble & lowly carriage of himselfe, hee attained to a name of glory in the highest degree; his delight was to paint shops, of barbers, shoemakers, cobblers, taylers; and semsters: hee had a good hand in pourtraying of poore asses, with the victuals that they bring to market, & such homely stuffe: where by he got himselfe a by-name, and was called *Rhyparographus*. Howbeit, such rude and simple toyes as these were so artificially wrought, that they pleased & contented the beholders, no thing so much. Many chapmen he had for these trifling pieces, and a greater price they yeelded vnto him, than the fairest and largest tables of many others. Whereas contrariwise, *Serapion* vied to make such great and goodly pictures, that (as *M. Varro* writeth) they were able to take vp & fill all the stals, bulks, and shops, jutting forth into the street vnder the old market place *Rostre*; this *Serapion* had an excellent grace in pourtraying tents, booths, stages, and theaters; but to paint a man or woman, he knew not which way to begin. On the other side, *Dionysius* was good at nothing els, and therefore he was commonly called *Anthropographus*. Moreover, *Callicles* also occupied himselfe in smal works; and *Calaces* set his mind especially vpon little tables and pictures which were to set out comedies and interludes; but *Antiphilus* practised both the one and the other; for he pictured the noble ladie *Hesione*, *K. Alexander the Great*, and *Philip* the king his father, with the goddesse *Minerva*: which tables hang in the Philosophers schoole or walking place within the stately galleries of *Ostia*, where the learned clerks and gentlemen fauorers of learning, were wont to meet and conuerse. Within the galleries also of *Philippus*, there are to be seen, the picture of prince *Bacchus*, the pourtrait of *Alexander* in his childhood, and of *Hyppolitus* the yong gentleman, affrighted and astonied at the sight of a monstrous bull let loose and ready to encounter him. Likewise in the gallerie of *Pompey*, the counterfeits of *Cadmus* and *Europa*; all pictures of *Antiphilus* his making. Of his handy worke, there is a fool with his bel, cockscorn, bable, and in other ridiculous habit, going vnder the name of *Gryllus*, deuised for the nones to make sport and pastime, wherupon all such foolish pictures be called *Grylly*. Himself was born in *Egypt*, howbeit he learned all his cunning of *Ctesidemus*. In this bed-roll of painters, I should not do well to passe ouer in silence, the workman that painted the temple of *Inno*, at *Ardea*, especially seeing that he was enfranchised free burgeois of that city, and honored besides with an Epigram or Tetraistichon, remaining yet to be read in the mids of his pictures in these fower Hexameter verses following;

*Dignis digna loca picturis condecorauit,
Regina Iunonis supremi conjugis templum
Marcus Ludius Elosas Abolia oriundus;
Quem nunc, & post semper ab artem hanc Ardea laudat*

This stately Church of *Inno* Queen, with pictures richly dight,
Whom wife to mighty *Iupiter*, and sister, men do call;
Commends the hand of *Murke Ludie*, *Elosas* also hight,
Etolian born: whom *Ardea* doth praise, and euer shall.

These verses are written in antique Latine letters. By occasion of whose name, I must not de-
frand another *Ludius* of his due praise and commendation, who liued in the time of *Augustus*
Cesar Emperor of happy memory: for this *Ludius* was he who first deuised to beautifie the wals
of an house with the pleasantest painting that is in all varietie, to wit, with the resemblance of
manors, farms, & houses of pleasure in the country, hauens, vineys, floure-work in knors, groues,
woods, forests, hills, fish-pooles, conduits, and drains, riuers, riuercets, with their banks, and what-
soeuer a man would wish for to see: wherein also he would represent sundry other shews of peo-
ple, some walking and going to and fro on foot; others sailing & rowing vp and down the stream
vpon the riuier, or els riding by land to their farms, either mounted vpon their mules and asses,
or els in wagons and coaches: there a man should see folk in this place fishing and angling, in
that place hauking and fouling: some hunting here, the hare, the fox, or deere both red and fal-
low; others busie there in haruest or vintage. In this maner of painting a man should behold
of his workmanship faire houses standing vpon marshes, vnto which all the ways that lead be tie-
lish and full of bogs; where you should see the paths so slipperie, that women as they goe are
afraid to set one foot afore another; some at euery step ready to slide, others bending forwards
with their heads as though they caried some burdens vpon their neck and shoulders, and all for
fearc leitt, their feet failing vnder them, they should catch a fall and a thousand more deuises and
pretty conceits as these full of pleasure and delight. The same *Ludius* deuised wals without
dores, and abroad in the open aire to paint Cities standing by the sea side. All which kinde of
painting pleaseth the eie very well, and is besides of little or no cost. Howbeit, neither hee nor
any other in this kinde (how soeuer otherwise respected) grew euer to be famous and of great
name, that felicitie they only attained vnto, who vsed to paint in tables: and therefore in this re-
gard, venerable antiquitie we haue in greater admiration; for painters in old time loued not to
garnish wals for to please the master only of the house, ne yet to bedeck houses in that maner
which cannot stir out of the place, nor shift and saue themselves when fire commeth, as painted
tables may, that are to be removed with ease. *Protogenes*, as excellent a painter as he was, contented
himselfe to liue within a little garden in a small cottage, and I warrant you no part ther-
of was painted. *Apelles* himselfe might well haue the wals of his house rough cast or finely plai-
stered, but neuer a patch thereof had any painting: they took no pleasure, nay they had no lust
at all to paint vpon the whole wals, and to work vpon them from one end to another, al their skill
and cunning attended vpon the publique seruice of states and cities: and a painter was not for
this or that place only, but imploied for the benefit indifferently of all countries and nations.

But to return again to our particular painters: there flourished at Rome a little before *Augu-
stinus* *Cesars* days, one *Arellius* a renowned painter, but that he had one notable foul fault that mar-
red all and discredited his art; giuen he was exceedingly to wenching, and sure hee would be to
haue one woman or other all times in chafe: which was the reason hee loued a life to be painting
of goddeses, which were euer drawn by the pattern of his sweet-hearts whom hee courted. A
man might know by his pictures, how many queans he kept, and which were the mistresses or ra-
ther goddeses whom he serued. Of late daies wee had among vs here at Rome one *Amulius* a
Painter; he caried with him in his countenance and habit grauitie and seuerity; howbeit he lo-
ued to make gay and gallant pictures, neither scorned he to paint the most trifling toyes & mea-
nest things that were. The picture of *Minerva* was of his making, which seemes to haue her eie
ful directly vpon you, look e which way soeuer you will vpon her. Hee wrought but some few
houres of the day, and then would he seem very graue and antient, for you should neuer find him
out of his gown and long robe, but very formall, though he were close set at work & euen lockt
as it were to his frame. The golden house or palace of *Nero* caught vp all the workes hee made,
where they remained as it were in prison, and neuer came abroad; which is the reason that none
of his pictures els be extant. After him succeeded *Cornelius Pinus*, and *Aelius Priscus*, two Pain-
ters of good reputation, who painted the temples of *Honour* and *Verne* for *Vespasianus Augustus*
the Emperor, when he caused them to be re-edified: but of the twaine, *Priscus* in his workman-
ship came neerer to the painters of antient time.

¶ The manner how to make Birds silent, and to leane their chattering and singing. Who first deuised with fire and pencill to enamel and paint the arched rouses and embowed feelings of houses. The admirable price of pictures inserted here and there among other matters.

Since I haue proceeded so far in the discourse of Painters and their art, I must not forget to set down a pretty jest, which hath bin reported by many as touching *Lepidus*: It hapned during the time of his Triumvirat, that in a certain place where he was, the magistrates attended him to his lodging enuironed as it were with woods on euerie side: the next morrow *Lepidus* took them vp for it, and in bitter tearmes and minatorie words chid them, for that they had laid him where he could not sleep a wink all night long, for the noise and singing that the birds made about him. They being thus checked and rebuked, deuised against the next night to paint in a piece of parchment of great length a long Dragon or serpent, wherewith they compassed the place where *Lepidus* should take his repose; the sight of which serpent thus painted so terrified the birds, that they had no mind to sing, but were altogether silent. By which experiment at that time, it was known afterwards, that birds by this means might be stilled.

Encaustice.

As touching the feat of setting colours with wax, and *enamelling with fire, who first began & deuised the same, it is not known. Some are of opinion, that the inuention thereof came from *Aristides*; and that *Praxiteles* practised the same, & brought to an absolute perfection. But surely there were pictures wrought by fire a good while before *Aristides* daies; and namely by *Polygnotus*, *Nicanor*, and *Arcefilas* of Paros. *Lysippus* also in his painted tables that he made at *Aegina* vsed to entitle them with this inscription, *Αὐτῶντος ἰσχυρῶς, ἰ. Lysippus painted this with fire*: which verily he would neuer haue done, if the art of painting with fire (called Encaustice) had not bin before deuised. Moreover, *Pamphilus*, master to *Apelles*, is reported not onely to haue himselfe practised this painting with vernish, and to inamel by the means of fire, but also to haue taught it vnto *Pausias* the Sicyonian, who was the first that excelled in this kinde, and caried away the name from all others in his time. This *Pausias* was the son of *Brietes*, and apprentice also to his father in the beginning: he vsed also the plaine pensil, wherewith he wrought vpon the walls at *Thestia*; which hauing been in times past painted by *Polygnotus*, were now to be refreshed and painted new again by his hand: howbeit in comparison of the former worke he was thought to come a great way short of *Polygnotus*; and the reason was, because he dealt in that kind of work which was not indeed his proper profession. He it was that brought vp first the deuice of painting vaulted rouses; for neuer was it the manner to adorne and garnish embowed feeling ouer head with colours, before his time. His delight naturally was to be painting little tables, and therein he loued to portray little boies. Other painters his concurrents, and no well-willers of his, gaue it out, that he made choice of this kind of work, because such painting went but slowly away, and required no quicke and nimble hand. Whereupon *Pausias*, to disproue his aduersaries, and withall to get himselfe a name, as well for celeritie and expedition, as for his art and skill otherwise in these small pieces, began and finished in a table the picture of a boy, within one day, and thereupon it was called *Hemereusios*. In his youthfull daies he fell in fancie with a woman in the same towne where he dwelt, named *Glycera*: a fine wit she had of her owne, and especially in making chaplets and guirlands of floures, she was full of inuention. *Pausias* by his acquaintance with her, and struing to imitate with his pensil her handiworke, and to expresse that varietie of floures which she gathered and couched together full artificially in her Coronets, enriched his owne pictures also with a number of colours, and brought the art to wonderfull perfection in that point. In the end he painted *Glycera* also his loue, sitting, with a Chaplet of floures her hand: and certes this is the most excellent peece of worke that euer went out of his shop: this table with the picture was thereupon called by some, *Stephanoplocos*, *i. [A woman] plaiting and twisting a guarland*: by others, *Stephanopolis*, *i. Selling guirlands*: for that this *Glycera* got a poor liuing by making chaplets, and had no other good means to maintain her selfe. The counterfeit taken from this table and made by it (which kind of pattern the Greekes call *Apographon*) *L. Lucullus* bought of *Diouysius* a painter of Athens, and it cost him

* 781 l. 15 ff. * two talents of siluer. Furthermore, this *Pausias* made faire and great pictures also; and namely,

A namely, one of his making which doth represent a solemne sacrifice of oxen, is to be seen at this day within the stately galleries of *Pompeii*: and verily, this maner of painting the solemnity of a sacrifice he first inuented: but no man euer after could attaine to his dexteritie in that kinde: and notwithstanding many gaue the attempt, and seemed to imitate him, yet they came al short of him: about al, he had a singular gift to work by perspective, for when he was minded to paint a boe for oxen, to shew the full length, he would not portray him sidelong or askant, but afront: by which means the beast is best represented, not only how long, but also how large and big he is euery way. Again, whereas all other painters, whensoever they would raise their work, & make any thing seeme eminent and high, vse to colour the same white and bright, and the better to make their perspective, do shadow or deep the same with black: this man in lieu thereof, would paint the oxen all of a black colour, and cause the body as it were of the shadow to arise out of it selfe. And verily so excellent he was in this perspective, that a man would say, his euen, plaine, and flat picture were embossed and raised work, yea and imagin where fractures were, that al was found and entire. This man liued also at *Sicyone*, and verily for a long time this city was reputed the native countrey that bred painters, and the onely place stored with excellent pictures. But during that time wherein *Scourus* was *Aedile* at *Rome*, all the rich tables which were in the publick places of that city, whether in the market steads, temples, or common halls, were seised vpon and brought to *Rome*, for to satisfie great sums of money wherein the *Sicyonians* stood indebted.

After *Pausias*, there arose one *Euphranor* the *Isthmian*, whom flourished about the 104 *Olympias*, far surpassing all other painters of his time. This *Euphranor* is hee whom I haue named among the famous imageurs and founders. Of his workmanship there be Colosses of brasse, statues of marble stone, yea and faire drinking cups chased and engrauen. Of an excellent capacity he was, and apt to learn any thing, studious withall, and painfull about all others, and whatsoeuer he gaue his mind vnto, therein he excelled: and in one word, a general man he was like himselfe still, that is to say, his craftsman in all, and as good in one thing as another. This is hee who seems to haue expresse first the port and maiestie that is in princes and great states, and to haue obserued symmetry and proportion: & yet he was not without his imperfection, for commonly as he made the bulk of the body too slender, so the joints and heads were somewhat with the biggest; howbeit he wrote books touching symmetry and proportion, as also of colours. Among other works of his, there are reckoned these, to wit, the portraiture of a battel or skirmish of horsemen, the twelve chiefe gods and goddeses, also the liuely picture of *Theseus*, of whom he was wont to say, That the *Theseus* of *Parasus* painting was fed with roses, but this *Theseus* of his with good flesh. There be excellent tables of his making at *Ephesus*, to wit, *Phyxes* feigning himselfe mad, and in that fit coupling an oxen and a horse in one and the same yoke: also diuers personages in their clokes and mantles after the Greekish fashion, musing and in a deep study; likewise a captain putting vp his sword into his scabbard.

At the same time liued *Cydias*, he who in a table represented the * *Argonauts*, for which *Hortensius* the Orator was content to pay 144000 Sesterces. This picture he shined in an Oratorie or chappell built of purpose for it, in a house of pleasure that he had at *Thusculum*.

E As for *Antidatus*, apprentice he was to *Euphranor*: of his handiwork there is a picture at *Athens* resembling one with a shield ready to enter into combat or fight; also a wrestler and a plaier vpon the fife or hautbois, which is a piece of work highly commended, and few comparable vnto it: more curious and precise he was in the secrets of the art, than obseruant of symmetry & proportion; being otherwise given to vse sad and dusky colours. The greatest name that he had, was for bringing vp *Nicias* the *Athenian*, who of all others painted women most excellently. For lights and shadowes in perspective he was excellent: also a passing great care and regard he had so to raise his worke, as that it seemed to be embossed and higher than the boord of his table: the pictures of *Nemea*, which out of *Asia* were transported to *Rome* by *Syllanus*, and hung vp in the Senat house, as I haue shewed heretofore; of prince *Bacchus*, within the temple of *Concord*; of *Hyacinthus*, which *Augustus Caesar* vpon a speciall liking to it brought with him to *Rome*, after hee had forced and sacked *Alexandria*; (in which regard *Tiberius Caesar* his successeur, seeing what affection *Augustus Caesar* had vnto it in his life time, dedicated it in the Temple of the said *Augustus*) and lastly of the goddesse *Diana*, were all proofes of his skill and workmanship. Moreover, at *Ephesus* the Sepulchre of *Megabyzus* one of the Priests of the Or-

* i. Diuers valiant knights, who accompanied prince *Idem* in his voyage to *Colchos* for the golden fleece.

der of *Diana* of Ephesus was of his painting: like as at Athens, the necromancie of the Poet *Homer*. This picture *Nicias* held at so high a price, that he would not let it go vnto *K. Attalus* for 60 talents, but chose rather to bestow it freely vpon his own native country, being otherwise a man for his own priuat state very wealthy. Besides these before rehearsed, he made others of a larger size, among which are reckoned *Calypso*, *Io*, and the lady *Andromeda*. The excellent picture also of *K. Alexander*, which is in the gallery of *Pompeius*, together with *Calypso* painted sitting, came out of his shop. The perfect pourtraying of fourfooted beasts is ascribed vnto him; and in truth, a singular grace he had and felicitie in painting dogs. This is that *Nicias* of whom *Praxiteles* gaue so good testimonie: for being asked vpon a time, what pieces he esteemed best of all those that himselfe had cut in marble: he answered, Euen those wherein *Nicias* hath had a hand: so much did he attribute vnto his * vernish and polishing. Another *Nicias* there was, who liued in the 112 Olympias; but whether this man were he or no, it is not certainly knowne; howbeit some there be that would haue him to be the same. Certes, *Athenian* of Marona was taken for as good a workman euery way as *Nicias*, and in some respects better: he learned the art of *Glaucon* the Corinthian. In choice of his colours he stood not so much vpon gallantnesse, but vied those that were with the saddest; howbeit those dark and shadowed works of his shewed more pleasant and delectable than his masters: wherby appeared his profound knowledge and deep skil, in the very laying and couching of his colours. The picture of *Philarchus* he drew, which is in the Temple of *Ceres Eleusine*. The frequent assem- ly also of the dames of Athens, which they call *Polygynacon*, was of his pourtraying: likewise he represented *Achilles* in his youth, hidden vnder the habit of a yong damosell, and how the crafty foxe *Pylissus* discouered and found him out, notwithstanding he was so disguised. But one table about the rest woon him the greatest credit, and that was, wherein he painted an horsekeeper training and nurturing his palfrey. Certes, but that he died in his youth, there had not been a painter in all the world comparable vnto him.

As touching *Heraclides* the Macedonian, he also may run in the range of famous Painters: at the beginning he employed himselfe in painting ships: after that King *Perseus* was taken prisoner, he left his native country and went to Athens, where liued at that time *Metrodorus*, a Painter and Philosopher both, a man of great name and authoritie as well in the one profession as the other: and therefore when *L. Paulus* after the defeature of the said *Perseus* sent vnto the Athenians, and requested them to send vnto him an excellent Philosopher to teach and instruct his children, together with a singular painter to set out his triumph with curious pictures, the Athenians made choice of *Metrodorus* onely, and commended him alone vnto *Lucius Paulus*, for the best approoued and most consummate to serue his turne and satisfie both his desires: which by good prooffe and experience *Paulus* found true, and gaue iudgement of him accordingly.

Timomachus the Byzantine flourished in the dayes of *Cesar* Dictatour, for whom hee painted *Ajax* and *Medea*: which pictures when he bought of him for 80 talents, hee caused to be hung vp in the temple of *Venus * Genetrix*. Now when I speake of a talent, you must vnderstand the Attick talent, which *M. Varro* doth value at 6000 deniers Roman. There goeth as great praise likewise and commendation of other pieces that passed from vnder the hands of *Timomachus*, to wit, the pictures of *Orestes*, of *Iphigenia* in Tauris, and of *Lecythion*, who taught youths dancing, vaulting, and other feats of actiuitie: he pourtraied also in a table, a goodly race, descent, and kindred of gentlemen; two persons besides in their clokes or mantles, after the Greekish fashion, ready to make a speech vnto the people, the one set, the other standing vpon his feet: but it seemed that art fauored and graced him most in painting *Minerva's* shield, where he portraied *Gorgon* or *Medusa's* head most liuely.

Aristelans was the son of *Pausias*, and vnder his father he learned the myserie of painting, who is counted one of the greatest painters that euer was. Of his workmanship are the tables containing the pictures of *Epaminondas*, *Pericles*, *Medea*, *Virtue*, and *Thebus*. Hee also drew with his pensill in colours, the common people of Athens, and a solemne sacrifice of Oxen.

There was also one *Mechopanes*, apprentise likewise vnto the same *Pausias*, who is highly commended by some for his curious and exquisite workmanship: but such it is, as none but cunning artists can conceiue, for otherwise I assure you his colours are vnpleasant, and hee loued to lay on too much of one thing, and that was Sil.

* Circum-
lioni: others
read circumdu-
lioni, i. e. the
the first
draught or
pourtiling.

* This Saint
Julius Cesar
honored much
for that hee
would seeme
to be defended
from Iulus or
Ascanius, son
of *Enneas*, and
nephew to *Ve-
nus* by *Anchi-
se*.

A As for *Socrates* the painter, his pictures were liked very well of all that saw them, and in truth, they deserued no lesse: for of his doing are these and such like, to wit, *Esculapius*, with his daugh-
ters, *Hygia*, *Egle*, *Panacea*, and (1) *Iaso*: and an idle lazy lubber, knowne by a deuised name *Ocnos*, whom he pourtraied twisting a cord of Spart, and euer as he did it, an asse behind him gnawed it asunder. Thus much may serue concerning the principall painters that haue been knowne to excell in both kinds, to wit, with the pensill, and with fire: it remaineth now that I should discourse of those who were next vnto the principall, and so reputed.

In this second course of painters I must range *Aristocles*, who beautified with his pictures the temple of *Apollo* in Delphos: as for *Antiphilus*, he is as much praised for painting a boy blowing hard at the coles; in which table, it is a pretty sight to see how all the house (which was faire enough besides) shineth by the fire that he makes, as also what a mouth the boy makes: likewise for the picture of a company of Spinners, so liuely, that one would imagin he saw euery woman making hast to spin off her distaffe, struiuing aview who shal haue don her task first. He deuised also to portray *Ptolome* hunting, & this they call (2) *Aposcopon*; for which he is much commended: but principally for a braue Satyr of his workmanship, clad in a Panthers skin. *Aristophan* woone much credit by painting *Ancas* wounded to death by a wild bore, & his wife *Astypate* standing hard by, who seemeth to lament for his sake, and (as it were) to feele part of his paine: he made also one faire table, enriched with a number of personages, to wit, *K. Priamus*, faire *Helena*, dame *Credulitie*, *Vlixes*, *Deiphobus*, and *Dolori*. *Androbius* got himself a great name by a picture, representing one (3) *Scyllus* (a cunning diuer) cutting in two the anker cables of the Persian fleet, riding

C at sea. *Artemon* likewise was renowned for the counterfeite of lady *Danae*, found floating in the sea by (4) rowers or men of war, who seemed to wonder at her beauty, and to behold her with much contentment: also for picturing queene *Statonice*: *Hercules* and *Deianira* his wife: but the most excellent pieces of his workmanship, be those which are to be seene in the galleries of *Ostania*, among other of her stately buildings; to wit, *Hercules* ascending vp into heauen from the mountaine *Oeta* within the region of *Doris*, where he changed this mortall life, and by the generall consent of all the gods, was receiued into their society: the whole history also of *Laomedon*, as touching his falshood to *Hercules* and *Neptune*. *Alcimachus* the painter was renowned for the picture of hardy *Dioxippus*, who (5) carried away the prize in all feats of actiuitie, at the solemne games of Olympia, and neuer sweat nor touched (6) dust for it, which easie victory the Greekes call *Aconiti*. As for *Canus*, he was excellent at painting Coronets & Garlands: also at drawing coats of arms in scutcheions, of gentlemen and noble persons, with the stile of their titles & dignities. *Ctesilochus*, an apprentice to *Apelles*, became very famous for one picture about the rest, although it were but a wanton one and offenseue to chaste eies; wherein forsooth hee depainted *Iupiter*, attired in a caule or coife about his head like a woman, groning and crying out also (as women do in trauell of childe birth) among the goddesses for their helping hand, who plaied the midwives about him, vntil he was deliuered of god *Bacchus*, and brought to bed. *Cleon* was much spoken of, for the picture which hee made of *K. Admetus*: *Ctesidamus* for pourtraying the winning of *Oechalia* by *Hercules*. And for drawing the picture of lady *Laodamia*, the wife of *Protesilaus*. *Cleides* was notorious for one picture which he made in despite of queene *Stratonice*, wife to *K. Antiochus*, and to be reuenged of her for a disgrace that he had receiued at her hands: for being in the court, and perceiuing that the queen did him no honour at all, nor gaue him any countenance, he made no more ado, but painted her in her colours, tumbling and wallowing along full vnseemly with an odde bafe fisherman, whom as the voice went, she was inamored vpon; and when he had done, set it vp in the very haue of Ephesus, recovered a barke presently, and away he went vnder sale as fast as wind and tide would carry him. When the queene heard of it, she made but a iest and mocke of it; neither would shee suffer the picture to be taken away, in regard of the wonderfull workmanship, which expressed her and him so like and liuely. *Craterus* was a Comedian and plaier in Enterludes, howbeit, a fine Painter, as may appeare by his handyworke at Athens, within the publicke place *Pompeium*. *Eutychides* pourtraied a charriot drawne with two horses, and *Victorie* to guid and driue the same. *Eudoxus* had the name for his pictures which are seen at stage-places, to beautifie the place: who also was a good imageur and cast many faire pieces in brasse. *Iphis* was well thought of for *Neptune* and *Victorie* of his painting: and *Abros* was no lesse esteemed for the pictures resembling *Amity* and *Concord*, as also for the pourtraitures of the gods. *Leontiscus* pictured *Aratus* the Generall of the Achæans, re-

D turning

E

(1) I am not of
Dalechamps
hisopimus, who
takes Iaso here
for the valliant
knight Iason.
For the termi-
nation of the
word is meere
feminine as *Ia-
so*, *Sappho*, &
such like: be-
sides, who sees
not, that *Iaso*
is respectiue
to Physick, for
that *Jaspi* in
Greece signifi-
eth curing or
healing, and it
forreth well
with the names
of her other
sisters, which
are likewise
significant.
(2) A (telling
his shot at the
Deere or wild
beast) as *Dale-
champs* doth
interpret it: or
els according
to *Scaliger* (hol-
ding his hand
ouer his ies
to pite his
game, & take
his mark the
better.
(3) or *Scyllius*,
according to
Heracl.
(4) *Prodenibus*
otherwise *Vif-
toribus*, i. fi-
shermen.
(5) for he was
the challenger
& none would
come forth a-
gainst him.
(6) for at wrest-
ling especially,
they caught vp
dust in their
hands, to take
hold the better
of one ano-
thers bodies,
which were
glub with oile.

turning with victory, and triumphing with his trophy. He painted also a minstrel wench playing vpon a Psaltry, and seeming to sing to it; which was thought to be a daintie piece of worke. As for *Leon*, he painted *Sappho* the Poetresse. And *Nicaarchus* was much bruid abroad, for a picture, shewing *Venus* accompanied with the Graces and the pretty *Cupids*. And of his workmanship is *Hercules*, sad and peniue: penitent also and repentant, for that which he had done in his furious madnesse. *Nealces* made one picture of *Venus* most curiously: for passing witty hee was, full of inuention, and exquisit in his art. When he painted the nauall battell betwene the Egyptians and the Persians, which was fought vpon the riuer Nilus, the water whereof is rough and like the sea; because he would haue it knowne, that the fight was vpon the said riuer, he deuised another by worke to expresse the same, which all the Art of painting otherwise could not performe: for he painted an Asse vpon the banke, drinking at the riuer, and a Crocodile lying in wait to catch him: whereby any man might soone know it was the riuer Nilus, and no other water. *Oenias* the painter made one picture about the rest, which he called *Syngenicus*. *Philiscus* became renowned by a painters shop of his painting, where he deuised a prentice boy blowing the coles to kindle a fire. *Phalerion* pourtraied *Scylla*, transformed into a monstrous Meeremaid. *Simonides* got credit by the picture of *Agatharrhus*, who woon the best game at running: and of the goddesse of Memory, named *Mnemosyne*. *Simus* took pleasure in painting a yong boy lying asleep in a waulke-mill or Fullers worke-house: another sacrificing vnto *Minerva* at the feast *Quinquatrus*: and of the same mans doing, there is an excellent picture of *Nemesis*, representing Iustice and Reuenge. *Theodorus* drew one smetting his nose: and the same painter represented in a table, how *Orestes* murdered his owne mother *Clytemnestra*, and *Aegisthus* the Adulterer that kept her. The warre of Troy hee deapainted in many seuerall tables: and these hang in the galleries of *Philip* at Rome. Of his handy-worke is lady *Cassandra* the Prophetesse, which is to be seen in the Chappell of *Concord*. Also, *Leontium* the courtisane belonging to *Epicurus* and his followers, was of his painting; like as king *Demetrius* musing and standing in a deepe studie. As for *Theon* the painter, hee described with his pensill the madnesse of *Orestes*, and pourtrayed *Tamyras* the Harper or Musitian. *Tauriscus* made one table, representing a man flinging a coit; and another resembling queene *Clytemnestra*. He pictured also a little *Pan*, whom he called *Panniscus*, in manner of an Anticke: *Polynices* also making claime to his kingdome, and marching in warlike manner to recover the possession thereof againe: and last of all, signieur *Capaneus*, who lost his life in skaling the walls of Thebes. And here commeth to my minde one notable example as touching *Erigonus*, which I cannot passe with silence: This *Erigonus*, seruant sometime to *Nealces* the Painter, and employed onely in grinding colours, profited so much by seeing his master worke, that he became a Painter himselfe, and left behinde him an excellent workman of his owne teaching, *Paustias* brother to *Aginetia* the Imageur. But one thing more there is, of rare admiration and worthie to be remembered, That the last peeces of excellent Painters, and namely such tables as bee left vnperfect, are commonly better esteemed than those that bee fully finished: as wee may see by the Raine-bow or Iris which *Aristides* was entered into, the two brethren *Castor* and *Pollux*, begunne by *Nicomachus*; the Picture of *Medea*, killing the children that shee had by *Iason*, which *Timomachus* was in hand with; and the *Venus*, that as I sayd before, *Apelles* liued not to make an end of: for in these and such like imperfect tables, a man may (as it were) see what traicts and lineaments remayne to bee done, as also the very desseignes and cogitations of the Artificers: and as these beginnings are attractive allurements to moue vs for to commend those hands that began such Draughts: so the conceit that they be now dead and missing, is no small grieue vnto vs, when wee behold them foraw and fore-let. But to come againe vnto our Painters: there be more yet behinde, and those of verie good regard in their time, howbeit, I will runne them ouer sleightly, and as it were passing and glauncing by them, namely, *Aristonides*, *Anaxander*, *Aristobulus* the Syrian, *Arcefilas* the sonne of *Tisicrates*, *Corybas* Apprentice to *Nicomachus*, *Carmanides* to *Euphranor*, *Dionysodorus* the Colophonian, *Diogenes* who followed the Court of King *Demetrius*, *Euthymedes*, *Heraclides* the Macedonian, *Mydon* of Solæ brought vp vnder *Pyromachus* the Imageur, *Mnasitheus* of Sicyone, *Mnasitheus* the sonne of *Aristonides*, who was Apprentice likewise vnto him, and *Nessus* the sonne of *Abron*, *Polemon* of Alexandria, *Theodorus* of Samos, and *Siodus*, (all three trayned vp vnder *Nicostratus*) and *Xenon* of Sicyone, who learned his Craft of *Nealces*.

Moreo-

Moreouer, women there were also, excellent * Paintresses, to wit, *Timarete*, the daughter of *Nicon*, who made that excellent pourtraiture of *Diana* at Ephesus, a most antique picture: *Irene* the daughter of *Cratinus* the painter, who learned vnder her father, & drew the picture of a yong damosell, which is at Eleusine: *Calypso*, of whose workmanship there is the picture of an old man, and of *Theodorus* the juglar: *Alosthenes* painted a dauncer: and *Aristarete*, both daughter and apprentise to *Nearchus*, made prooffe how well she had profited, by the picture of *Asculapius*. And *M. Varro* saith, That when he was a yong man, there was at Rome one *Lala*, a Cyzecene borne, who passed her whole life in virginity, and she was skilful both in painting with the pensill, and also in enamelling with hot Steele in yuorie: her delight was principally in drawing women; and yet there is a Neapolitane of her pourtraying in a faire long table: last of all, shee took out her owne counterfeite at a mirroir or looking glasse. This one thing is reported of her, that no painter had a quicker hand or went faster away with his worke than she: and look what pictures soeuer came out of her hands, they were so artificially done, that they did out-sell a great deal the works of *Sapphus* and *Dionysius* (the most famous painters in that age) notwithstanding their pictures and tables were so faire, as that they take vp whole cabinets; and wel was he (before that her pictures came abroad) who could be furnished out of their two shops. There was yet one paintresse more, to wit, *Olympias*: howbeit I heare no great matter of her, but this onely, that she taught *Autobulus* the art of painting.

To come now to painting by the means of fire: I find this agreed vpon by all, that practised it was in old time but two waies only, that is to say, with wax, and in yuorie with a little Steele or punching yron; vntill such time as they fell to painting ships also with wax and fire: and in this third sort the manner is to vse great pensils or brushes dipt in wax molten ouer the fire: and this kind of painting ships is so fast and sure, that neither sun will resolute, nor salt water eat and fret, ne yet wind and weather pierce and chinke it.

Moreouer, in Egypt they haue a deuise to staine cloths after a strange and wonderful maner: They take white clothes, as sailes or curtaines when they haue bin worne, which they besmeare not with colours but with drugs that are apt to drinke and take colour: when they haue so don, there is no apparence in them at all of any dye or tincture. These clothes they cast into a lead or cauldron of some colour that is seething and scalding hot: where, after they haue remained a pretty while, they take them forth againe, all stained and painted in sundry colours. An admirable thing, that there being in the said cauldron but only one kind of tincture, yet out of it the cloth should be stained with this and that colour, and the foresaid boiling liquor change so as it doth, according to the quality & nature of the drugs which were laied vpon the white at first. And verily, these stains or colours are set so sure, as they can neuer be washed off afterwards: thus the scalding liquor, which no doubt if it had diuers tinctures and colours in it, would haue confounded them all into one; now out of one doth dispense and digest them accordingly, and in boiling the drugs of the clothes, setteth the colour and staineth surely. And verily, this good moreouer haue the clothes by this scalding, that they be alwaies more firme and durable, than if they had not come into the boiling cauldron.

CHAP. XII.

¶ The first deuisers of the art of Potterie, and in working in cley. Of Images made of earth. Of earthen vessels, and their value in old time.

Now that I haue discoursed of painting enough, if not too much, it were good to annex and ioine thereto the craft of Potterie, and working out of cley. And to begin with the original and inuention of making the image or likenesse of any thing in cley, it is said, that *Dibutades*, a Sicyonian borne, and a Potter, was the first that deuised at Corinth to form an image in the same clay whereof he made his pots, by the occasion and means of a daughter which hee had: who being in loue with a certain yong man, whensoever he was to take a long iourney far from home, used ordinarily to mark vpon the wal the shadow of her lours face by candle light and to pourfill the same afterwards deeper, that so she might inioy his visage yet in his absence. This her father perceiuing, followed those traicts, and by clapping cley therupon, perceiued that it took a print, and made a sensible forme of a face: which when hee saw, hee put it into the furnace to bake among other vessels, & when it was hardned, shewed it abroad. And it is said, that this

* The race of
Bacchus, who
for a time reig-
ned at Corinth

* Moulds or
patterns

* Hee meant
those whereby
images of
brasse were
cast.

this very piece remained in the bairns of Corinth safe, untill *Mummus* destroyed the city. Howbeit, writers there be who affirme, That *Rhaecus* and *Theodorus*, both of the Isle Samos, were the first inventors of this feat of forming shapes in cley, long before the expulsion of the * *Bacchidae* out of Corinth. And by their saying, when *Demaratus* was faine to flie out of that city, and to retire himselfe into Tuscan (where he begat *Tarquinius*, afterwards surnamed *Priscus*, & king of Rome) there accompanied him from Corinth *Eucheir* and *Engrammus*, two Imageurs in cley, and they taught in Italy the art of Potterie and Imagerie in that kind. As for *Dibutades* before-said, the inuenter he was not of his craft, but indeed he deuised to vse with other cley and earth, a ruddle, or els to colour the white cley with madder. His inuention it was to set vp Gargils or Antiques at the top of a Gauill end, as a finiall to the crest tiles, which in the beginning he called * *Protypa*. The same man afterwards deuised other counterfeits, and those be termed *Ectypa*: and hence come the louers and lanterns reared ouer the roofs of temples, which are so curiously wrought in earth. In sum, this man gaue the original name *Plastica* to the craft, and *Plasta*, to the craftsmen in this kind. But *Lysistratus* of Sicyone, and brother to *Lysippus*, of whom I haue written before, was the first that in plaster or Alabaister represented the shape of a mans visage in a mould from the liuely face indeed; and when hee had taken the image in waxe, which the foresaid mould of plastre had giuen, ysed to form and fashion the same more exactly. This man staid not there, but began to make images to the likenesse and resemblance of the person: for before him euery man studied only to make the fairest faces, and neuer regarded whether they were like or no. *Lysistratus* also inuented to make counterfeits in cley, according to the images and statues in brasse, already made. And in the end, this feat of working in cley grew to such height, that no images or statues were made without moulds of cley: wherby it may appear, that the skill and knowledge of Potterie is more ancient than founderie or casting brasse. To come now to Imageurs in cley, *Damophilus* & *Gorgasus* were counted most excellent & principal of all others, and they were good painters besides; as may appear by the temple of *Ceres* in Rome, that standeth at the greatest shew-place, called *Circus Maximus*, which these two workmen enriched both with pictures, and also with earthen images: for in the said temple there be certaine Greek verses set vp, which testifie, That all the work on the right hand was wrought by *Damophilus* & on the left hand by *Gorgasus*. Before this temple was built, *M. Varro* saith, that all Rome was furnished with images, of Tuscan work, and no other: but of this church, when it was re-edified, the pictures vpon the wals were esteemed so rich, that people thought them worthy to be cut out in great crusts and flakes out of the said wals; and for to saue them, they bestowed cost to set them in frames fair crested about the edges: also (by his report) the images wherewith the festeries & louers of the said church stood adorned, were dispersed into diuers parts of the city, as singular pieces of work, and well was he that could haue one of them. Moreover, I reade, that *Chalcosthenes* made diuers pieces of work in raw cley at Athens, and the place called *Ceramicos* tooke the name of his work-house. And *M. Varro* writeth, that himselfe knew at Rome a certaine man named *Possis*, who was wont to make of cley, clusters of grapes, and fishes, soluely, that whosoever looked vpon them, could hardly haue discerned them by the eie from grapes and fishes indeed. The same author doth highly extoll and magnifie one *Arcefilaus*, a very familiar friend of *Lu. Lucullus*, and whom he loued very well, whose * moulds were commonly sold dearer euen to workmen themselves, than the workes of others after they were finished. And hee saith, That the image of *Venus Genetrix*, which standeth in the Forum of *Caesar*, was of his making: but before hee had fully finished the same, for haste of dedication, it was set vp vnperfect. After which time (as he affirmeth) *Lu. Lucullus* bargained with him to make the image of *Felicitie*, for which he was to haue threescore thousand Sesterces, howbeit, the death both of the one and the other, was the cause that the worke was neuer finished. As for *Octavius*, a knight of Rome, being minded to make a fair standing cup, hee paid to him for the mould in plastre one whole talent. The same *Varro* praiseth also *Praxiteles*, who was wont to say, that the craft of Potterie and working in cley, was the mother of Founderie, and of all workes that are cut, engrauen, chased and embossed: who, albeit hee were an excellent founder and imageur in brasse, and knew how to carue, graue, and chase passing well, yet would he neuer goe in-hand to make any piece of worke, but he would forme it first in cley, in a mould of his own making. Moreover, this art (by his saying) was much practised in times past, in Italy and Tuscan especially: from whence, and namely out of the city *Fregellæ*, king *Tarquinius Priscus* sent for one *Turianus*, to no other purpose in

the world, but to agree with him for to make the image of *Iupiter* in earth to set it vp in the capitoll: for surely, no better he was than made of clay, and that by the hand of a porter, which was the reason, that they vsed to colour him ouer with vermillion: yea and the charriots with foure horses which stood vpon the lanterns of the said temple, were of no other stuffe; concerning which, I haue spoken in many places. The same *Turianus* also made the image of *Hercules*, which at this day retaineth still in the city that name, which testifieth what matter he is made of. Lo, what kind of images there were in those daies made in the honour of the gods by our ancestors, for the most excellent! neither haue we cause to be ashamed of those our noble progenitors, who worshipped such and no other. As for siluer and gold, they made no reckoning thereof, either about themselves or the very gods whom they worshipped: and verily, euen at this day, there continue still in most places, such images of earth. As for the festeries and lanterns of temples, there be many of them both within the city of Rome, and also in diuers burrough townes vnder the Empire, which for curious workmanship (as it were chased and ingrauen) are admirable; and for continuance of time more lasting and durable, than our louers of gold, and for any harme they do, lesse subiect I am sure to iniurie. Certes in these daies, notwithstanding the infinit wealth and riches that we are growne vnto, yet in all our diuine seruice and solempne sacrifices, there is no assay giuen or tast made to the gods out of Cassidoine or cristall bols, but only in earthen cups. If a man consider those things aright, & weigh them duly in particular, he shall find the bounty and goodnesse of the earth to be inenarrable, though he should not reckon her benefits that she hath bestowed vpon mankind, in yeelding vs so many sorts of corne, wine, apples, and such like fruits, herbs, shrubs, bushes, trees, medicinable drugs, mettals, and mineralls; which I haue already treated of: for euen in these works of earth and pottery, which we are glutted with (they be so vsuall and ordinary) how beneficiall is the earth vnto vs, in yeelding vs conduit pipes for to conuey water into our bairns, tyles flat yet hooked and made with crochets at one end to hang vpon the sides of the roofo, chamfered for to lie in gutters to shoot off water, curbed for crests to clasp the ridge on both sides; bricke to lie in wals affront for building, and those otherwhiles to serue as binders in parrine worke with a face on both sides; to say nothing of the vessels that be turned with the wheele and wrought round; yea and great tuns and pipes of earth deuised to contain wine and water also: In regard of which stone and earthen vessels, *K. Numa* ordained at Rome a seuenth confraternitie of potters. Ouer and besides, many men there haue bin of good worth and reputation, who would not be burnt to ashes in a funerall fire after they were dead, but chose rather to haue their bodies bestowed entire within coffins of earth, lying among leaues of myrtle, oliue, and blacke poplar, after the Pythagorean fashion: in which manner, *M. Varro* tooke order for to be interred. And if we looke abroad into the world, most Nations vnder heauen do vse these earthen vessels: and euen still, those that be made of Samian earth and come from that Isle, are much commended for to eat our meats out of, and to be serued to the board: and Eretum here in Italy, retaineth yet the name for such vessel: but for drinking-cups, onely Surrentum, Asia, and Pollentia, within Italy; Saguntum in Spaine, and Pergamus in Asia, be in credit: at Tralleis also a city in Sclauonia, and Modenna (to goe no farther than Lombardie in Italy) there is made much faire vessel of earth, appropriat vnto those places: for euen in this respect, some nations are innobled and growne into name. This earthen ware is of that price besides, that it is thought a commodity worth the transporting too and fro ouer land & sea, by way of merchandise. But if we speak of that kind that is wrought by turners craft with the wheele, the daintiest vessels come from Erythrae. And in very truth, such may the earth be, that much art and fine workmanship is shewed therein: in testimony whereof, there be two stone vessels or earthen (call them whether you wil) within the principal temple of that city to be seen at this day, thought worthy to be consecrated there, in regard of their clean worke and their thinnesse besides, which a master and his prentise wrought in a strife and contention, whether of them could driue his earth thinnest: howeuer it be, they of the Island *Cos* are most commended for the fairest vessels of earth; and yet those of Hadria beare the name to be more durable, and of a more fast and firme constitution. And since I am entred thus far, I will obserue vnto you some examples of feueritie not impertinent to this discourse: I find vpon record, That *Q. Ceponius* was condemned and fined for an ambitious man, onely for this, because hee had sent an earthen * amphor [of wine] as a present vnto one who was to giue him his voice when he stood for an office. And that you may certainly know that vessels of earth haue in some sort

Bbb

* *Vini amphora*: I suppose that he means the vessel in which wine is sent, and not full of wine.

been of wine.

* Decies festerium, according to Budens; but if you read according to Hotomanius, ducenties, it is twenty times as much more. This platter he called, the rarguet or Minerva, and hee got himselfe thereby a name to be called Patinarum. See Sueton.

been in request among riotous gluttons and wastfull spendthrifts, listen what *Fenestella* saith as touching this point, the greatest exceeding (quoth he) and gaudiest fare at a feast, was serued vp in three platters, and was called *Tripatinum*: the one was of Lampreys, the second of Pikes, the third of the fish *Myxon*: whereby it may appeare, that euen in those daies men began at Rome to grow out of order, and to giue themselves to riot and superfluity: yet were not they so bad, but we may prefer them euen before the Philosophers of Greece: for it is written, that in the sale of *Aristotles* goods, which his heirs made after his decease, there were sold 60 platters, which were wont ordinarily to go about the house. As for that one platter of *Aesop* the plaier in tragedies, which cost fix hundred thousand sesterces, I doubt not but their stomackes rise thereat when they reade thereof in my treatise as touching birds. But this is nothing (I assure you) to that charger of *Vitellius*, who whiles he was Emperor caused one to be made and finished that cost a * million of sesterces, for the * making wherof there was a furnace built of purpose in the field; the which I rather note, because they should see the monstrous excesse in these daies, that vessels of earth should be more costly than of Cassidonie. Alluding to this monstrous platter, *Musianus* in his second Consulship (when he ripped vp in a publicke speech, the whole life of *Vitellius*, now dead) vpbraided the very memoriall of him in these very terms, calling his excesse that way, *Patinarum paludes*, i. platters as broad as pools. And verily (saith he) that platter of *Vitellius*, came nothing behind another, which *Cassius Senerus* reproched *Asprenas* withall, whom he accused bitterly, and said, that the poison of that one platter had killed an 130 persons who had tasted thereof.

Furthermore, there are certaine townes that are in good account by reason onely of this vessel made therein, and namely *Rhegium* and *Cumæ*.

The priests of *Cybele* the mother of the gods, who are called *Galli*, vse to gueld themselves with a sheard of Samian earth; and they be of opinion, that if it be done with any thing els, they shall die thereof, if we may beleue *M. Calvus*, who whetted that tongue of his (which shortly after was in that sort to be cut out) against *Vitellius*; which turned to his great reproch and infamie, for that himselfe euen then railed vpon *Vitellius* in so bad termes, and lost his tongue for his labour.

But to conclude, what is it, that Art and the wit of man hath not deuised? for there is a means found to make a strong kind of mortar or cement by the broken sheards of potters vessell, if the same be ground into powder and tempered with lime; and the ordering of it in this manner, causeth it to be more firme and last the longer, and such they call *Signina*. And hereby also men haue found out certain durable pauements of that kind.

CHAP. XIII.

¶ The varietie of sundry kinds of earth: of the dust or sand of *Puteoli*: and of other sorts of earth which will harden as a stone.

Over & besides the cement aboue named, there be other percells that the earth it self doth afford, fit to be laid in pauing worke: for who can sufficiently wonder at this, namely, That the worst part of it (which thereupon is called dust and sand, as it were the very excrement thereof) should be of that nature vpon the side of the hills of *Puteoli*, as being opposed against the waues of the sea, and continually drenched & drowned therewith, should become a stone so compact and vnited together as it were into a rock, that it scorneth all the violence of the surging billows, which are not able to vndermine and pierce the same, but hardeneth euery day more than other; euen as if it were tempered with the strong cement of *Cumes*. Of the same property is the earth within the country about *Cyzicum*: onely this is the difference, that not the dust or sand there, but the earth it selfe cut out into what parcels you will, in case it be drenched in the sea water a certaine time, is taken forth againe a very hard stone. The same (by report) happeneth about the citie *Cassandria*: as also about *Gnidos* in a fountaine of fre sh water, wherein if earth do lye, within the space of eight moneths it will turne to be a stone. Certes, all the way as a man goeth from *Oropus* as farre as to *Aulis*, what ground soeuer is beaten vpon by the water, changeth into rockes and stones. There is found also in *Nilus* a certaine sand, whereof the finest part differeth not much from that of *Puteoli* before said: not in regard that

that it is so strong as to breake the force of the sea-water, & to beat back the waues, but to subdue and crush the bodies of our yong gentlemen, and therefore serueth well in the publicke place of wrestling for those that be giuen to such exercises: and for this purpose verily was it brought from thence by sea to *Pairobis*, a slave lately enfranchised by *Nero* the Emperor. I reade also, that *Leonatus*, *Cratius*, and *Meleager*, who were great captains vnder *Alexander* the Great, and followed his court, were wont to haue this sand carried with them, with other baggage belonging to the camp. But I mean not to write any more of this argument, no more verily than of the vse of earth in those places where our youth annoint their bodies against they should wrestle; wherein our youths addict themselves so much to the exercise of the body, that they haue spoiled themselves otherwise, and lost the vigor of the mind.

CHAP. XIIII.

¶ Of mud walls: of Bricke walls, and the order and manner of making them.

What shall we say? See we not in *Africke* and *Spaine* both, certain walls of earth, which they cal * *Formacei*, of the forme and frame that is made of planks and boords of each side, between which a man may say they are rather infarced & stuffed vp, than otherwise laid and reared orderly; but I assure you, the earth thus infarced, continueth a world of yeres and perisheth not, checking the violence of raine, winde and fire, no mortar and cement so stiffe and strong. There are yet to be seene in diuers parts of *Spaine*, the watch-towers of *Anniball*, the high turrets and sconces also reared vpon the tops of hills, made all of earth: and hereof we haue our turres, which naturally are so proper not only for the rampiers and fortifications of a camp, but also for wharfs, banks, and buttresses, to breake the violence and inundation of riuers. As for the manner of making walls, by dawbing windings and hurdles with mud and clay, also of rearing them otherwhiles with vnbacked bricke, who is so ignorant that he knoweth it not? howbeit, for to make good bricke, they ought not to be made of any soile that is full of sand and grauell, much lesse then of that which standeth much vpon grit & stones, but of a greyish marle or whitish chalkie clay, or at leastwise a reddish earth: but in case wee bee forced to vse that which is giuen to be sandy, yet we must chuse that kind of sand which is tough and strong. The best season to make these bricke or tyles, is in the spring time; for in the mids of Summer they will cleaue and be full of chinkes; but if you would haue good bricke for building, they ought to be two yeres old at the least. Now the batter or lome that goeth to the making of them, ought to be well steeped and foked in water, before it be fashioned into bricke or tyle. Bricks are made of three sizes: the ordinarie bricke that we vse, is called *Didoron*, which carrieth in length one foot and a halfe, and in breadth a foot: a second sort is named *Tetradoron*, i. three foot long: and the third, *Pentadoron*, of three foot and nine inches in length: for the Greeks in old time, called the span or space of the hand from the thumbe to the little fingers end stretched out, *Doron*; which is the reason that gifts and rewards be called in their language, *Dora*, for that they were presented by the hand. You see therefore, how according to the length that they carrie, either of foure or fūe spans, they haue their denomination of *Tetradora*, or *Pentadora*; for the breadth is one and the same in them all, to wit, one foot ouer. Now there beeing this difference in the size, in Greece the manner is to imploy the smaller sort in their priuat buildings, but the bigger serueth for greater publicke workes. At *Pitana* in *Asia*, and in *Massia* and *Calentum*, cities of low *Spaine*, the bricks that be made, after they are once dried, will not sinke in the water, but float aloft; for of a spongeous and hollow earth they be made, resembling the nature of the pumish stone, which is very good for this purpose, when it may be wrought. The Greeks haue alwaies preferred the walls of bricke, before any others, ynlasse it be in those places where they had flint at hand to build withall: for surely such brick wals, if they be made plump vpright & wrought by line and leuell, so as they neither hang nor batter, be cuerlasting; & therefore such bricks serue for wals of cities and publick workes; their roiall pallaces likewise be built therewith. After this sort was that part of the wall at *Athens* laid and reared, which regards the mount *Hymettus*: so they built also at *Patrae*, the temples of *Iupiter* & *Hercules*, although all the columns, pillars, and architraues round about them, were of ashler stone: thus was the pallace of *K. Attalus* built at *Tralleis*; likewise that of *K. Crasus* at *Sardis*, which afterward was conuerted

* Some reade formacei, arched walls.

to their Senat-house, named *Gerusia*: likewise the sumptuous and stately house of king *Mausolus* at *Halicarnassus*: which goodly edifices continue at this day. Wee read in the Chronicles, that *Murena* and *Varro* when they were the high *Ædiles* at Rome, caused the outmost coat which was ouercast of the brick-walls of *Lacedæmon*, to be cut out whole and entire, and to bee set and enclosed within certaine frames or cases of wood, and so to be translated from thence to Rome, for to adorne and beautifie the publicke hall for elections of Magistrates, called *Comitium*; and all for the excellent painting vpon that parget. The workmanship therein although it were excellent and wonderfull in it selfe, yet being thus remoued and brought so far safe, it was esteemed more admirable. Moreouer, here within Italy the walls of *Aretine* and *Meuania* be made all of bricke: many at Rome they dare not build their houses with this kind of bricke, because a wall bearing in thicknesse but one foot and an halfe, wil not sustain aboue one* single story, for the order of the city permitted not the common wals and those which were outmost, to be thicker than a foot and an halfe: neither wil the partition wals within abide that thicknes, but are made after another sort.

CHAP. XV.

¶ Of Brimstone and Alum, with their severall kinds: also their medicinable properties.

HAVING spoken sufficiently of Bricks, it remaineth that I should proceed to other kinds of earth: wherein the nature of sulphur or brimstone is most wonderfull, being able as it is to tame and consume the most things that be in the world: it is ingendred within the Islands *Æolia*, which lie between Italy and Sicily; those I meane which (as I haue said before) doe alwaies burne by reason thereof. Howbeit, the best sulphur is that which commeth from the Isle *Melos*. There is found thereof likewise in Italy, within the territory about *Naples* and *Capua*, and namely in the hills called *Leucogæi*: that which is digged out of the mines, is fined and brought to perfection by fire. Of brimstone there be foure kinds; to wit, *Sulphurvis* or *Quickebrimstone*, which the Greeks call *Pyrron*, because it neuer came into the fire: the same is found for all the other kindes consist of a certaine liquid substance, and being boiled in oile are made vp and conected to their consistence: whereas the sulphurvis is digged out of the mine such as we see, that is to say, transparent, cleere, and greenish. The second kind is named *Gleba*, good onely for *Tuckers* and *Fullers*. The third sort also yeeldeth but one vse and no more, and that is, for tincture of wooll, by reason that the smoke and perfume thereof wil bring it to be white and soft; and this brimstone they call *Egula*. As for the fourth kinde, it serueth most of all for matches and wicks.

As touching the nature of Brimstone, so forcible it is, that if it be cast into the fire, the verie smell and steeme thereof will driue those in the place into a fit of the falling sicknesse, if they be subject thereunto. As for *Anaxilans*, he would commonly make sport withall at a feast, and set all the guests into a merriment: for his manner was to set it a burning within a cup of new earth ouer a chafing dish of coales, and to carry it about the table where they were at supper: and in very truth the reuerberation of the flame would make all that were neere it to looke pale and wan after a most fearefull manner, like as if there were as many grisly ghosts or dead mens faces. And to come more neere to the properties that it hath respectiue vnto Physicke, it healeth mightily, and is a maturatiue: it doth resolue withall and discusse any gathering of impostumes; in which regard it entereth ordinarily into such plaisters, that bee discussive and emollientiue. A cataplasme made with it, incorporate with grease or sewer, and so applied vnto the loynes and regions of the Kidnies, doth wonderfully assuage the paine and grieve in those places: being tempered with turpentine, it riddeth away the foule terrors called *Lichenes* that arise in the face, yea and cleanse the leprosie. The Greekes haue a pretty name for it and call it *Harpacticon*, for the speedy remouing and snatching it from the place where it is applied; for eftsoones it ought to be taken away. The same reduced into a lioch or liquid Electuarie, is good to be licked and let downe softly towards the lungs, in case of shortnesse and difficultie of winde: in which sort it serueth for them that spit and reach out of the breast by coughing, filthie matter: and soueraigne it is for those that be stung with scorpions. Take sulphurvis

A mix it with sal-nitre, grind the same together with vinegre, it maketh a singular good liniment for to scoure the foule morphew: let the same be tempered and prepared with vineger of *Sandaracha*, it killeth the nits that breed in the eie-lids. Moreouer, brimstone is employed ceremoniously in hallowing of houses; for many are of opinion, that the perfume and burning thereof, will keep out all enchantments, yea, and driue away foule fiends and euill spirits that doe haunt a place. The strength of Sulphur is evidently perceiued & felt in the springs of hot waters, that boile from a vein of it: neither is there in all the world, a thing that sooner catcheth fire; whereby it is apparant, that it doth participat much of that element. Thunderbolts & lightnings in like manner do sent strongly of brimstone: the very flashes and leames thereof stand much vpon the nature of sulphur, and yeeld the like light. Thus much shall suffice as touching the nature of sulphur.

The nature of Bitumen approacheth neere vnto brimstone: where it is to be noted in the first place, that the Bitumen whereof I speake, is in some places in manner of a muddy slime; in others, very earth or minerall. The slimy bitumen ariseth (as I haue said before) out of a lake in *Iurie*; as for the minerall bitumen, it is found in *Syria*, about a maritime town vpon the seacoast called *Sidon*: but both the one and the other are of a compact and massie substance, growing together fast and vnite. And yet there is a kind of Bitumen liquid, and namely that of *Zacynthus*, and the Bitumen which is brought from *Babylon*, where verily it is white naturally as it groweth. The Bitumen also which commeth from *Apollonia* is liquid: and all these the Greeks doe comprehend vnder one name *Pissasphaltion*, a word deriued of *Pitch* and *Bitumen*. There is a fatty kind of Bitumen likewise resembling an vnctuous or oleous liquor, within the territorie of *Agrigentum* in *Sicilie*, arising out of a fountaine, and it floteth aloft: The inhabitants of the countrey vse to scum and fleer it off by the meanes of certaine chats or catkins, which grow vpon many reeds and canes, for quickly will it hang and cleaue to the downe of such. Great vse they haue of this Bitumen, for it serueth their turnes to maintain lamp-light, in steed of oile: & therewith also they kill the farcins, scabs, and mange in their jades and laboring garrons. Some writers there be who reckon *Naphtha* (whereof I haue written in my second booke) to be a kinde of Bitumen; but so ardent it is, and holdeth so much of the fire, that wee know not which way to make any vse thereof. Concerning the marks of good Bitumen, the best is knowne by the glosse that it carrieth, if it shine exceeding much: the same also is ponderous and weighty: whereas the lighter sort is but indifferent heauy, and argueth some sophistication with pitch. In operation it hath the qualities of brimstone; asfringent it is, and yet resolutiue: it draweth together, and foldereth withall. A perfume thereof while it burneth, chafeth away serpents. The Babylonian Bitumen is thought to be very effectuell for the cataraacts, pearles, and slimes that ouerspred the eies: soueraigne likewise for the leprosie, and filthy terrors of the face called *Lichenes*, and the itch in any part of the body: it serueth in a liniment for the gout: and there is no kind thereof, but it causeth the haies of the eie-lids, which grow vntowardly and fall into the eies, for to turn vp againe. If the teeth be well rubbed with bitumen and sal-nitre together, it doth ease and assuage their paine: and being giuen in wine, it helpeth an old cough, and the shortnesse of wind. In case also of the dysenterie, it is taken in that manner, for it staieth a bloudy flux: but if it be drunke with vinegre, it doth discusse and dissolue * cluttered bloud which is within the body, and expelleth the same downward by seage: it doth likewise assuage the paine of the loynes or small of the backe, and generally mitigateth any grieue of the joints, if it bee layed too in manner of a cataplasme with *Barley meale*. There is a speciall plaister or cataplasme made of Bitumen, which carrieth the name thereof; it stancheth bloud, it bindeth and draweth together the edges of a wound, also it knitteth and vniteth again sinews which be cut in twain. There is an ordinary medicine also for the quartane ague, made in this wise: Take of Bitumen one dramme, of Mints the like weight, of Myrrhe the quantitie of one Obolus, mix and incorporate all these together: a perfume or smoke thereof will bewray the falling sicknesse. The very smell of Bitumen also discusse the fits of the mother when it riseth and stoppeth the womans breath: A suffumigation thereof, doth likewise reduce the matrice and twill into the right place, if they bee slipped and fallen downe too low, and ready to hang forth of the bodie: being drunke with Wine and Castoreum, it bringeth the ordinary course of the monthely termes in women. It serueth also for diuerse and sundrie other vses than in Physicke: For if any brassen Pots, Chaufers, pannes or kettles, or such like vessels, bee enhuiled

*For by reason that Rome was so populous, they made many lofts ouer head, so that the building was raised to 60 and 70 foot in vp-right wals: & these serued as tenements, & were called *Cenacula*, and one paire of staires leading into the street, serued them all: whereas the lord and master of the house kept beneath with his household, and was not troubled with these tenants or in-mates.

*Hereupon it is an ordinary medicine, to giue *Mumia* (which is *Asphaltum*) vnto those that are faine from on high and bee inwardly brouiled.

clots or pieces, & otherwise is glutinous. The same effects it hath that Cimolia, howbeit, some- what weaker in operation.

There is an earth called Ampelitis, which resembleth Bitumen as neer as may be. The triall of that which is good indeed, is, if in oile it be gentle to be wrought as wax, and if when it is tor- rified, it continue still of a blacke colour. It entred into medicines and compositions, which are made to mollifie and discusse; but principally it serueth to be autifie the eie-browes, and to colour the haire of the head blacke.

CHAP. XVII.

¶ Sundry sorts of chaulkes for to scoure clothes, and namely the Tuckers earth Cimolia, Sarda, and Vmbria. Of the common chaulke: and of Tripolium.

OF Chaulkes there be many kinds: of which, Cimolia doth affoord two sorts, and both per- tinent to Physick; the one is white, the other inclineth to the colour of Rofer. Both the one and the other is of power to discusse tumors, and to stay distillations, if they be vsed with vineger. They do keep downe biles and emunctories and swellings behind the eares: the foule tettars also, and other offenseue pimples and pusshes they repress, applied in the forme of a liniment: incorporat therewith salt-petre, salnitre, and put vineger thereto, it is an excellent medicine to allay the swellings of the feet, with this charge, that this cure be done in the Sun, and that after six houres, the medicine be washed off with salt water. Put thereto the cerot Cy- prinum, it is singular good for the swelling of the genetours. This Fullers earth Cimolia is of a cooling nature, and being vsed in the forme of a liniment, it staieth immoderat sweats: the same taken inwardly with wine in the baine or hot-houise, restraineth the breaking forth of pimples. The best of this kind, is that which commeth out of Thessalie. It is to be found also in Lycia a- bout Bubon. There is ouer and besides, another vse of this Cimolia or Tuckers cley, to wit, in scouring clothes. As for the chaulke Sarda, so called because it is brought out of Sardinia, it is employed only about white clothes, for if they be moteley or pied coloured, it is of no vse. Of al kinds of Cimolia it is the cheapest, and of basest account: yet that of Vmbria is of more price, and that which they call Saxum in Latine, and is our ordinary white chaulke: this property it hath, that with lying in water, it groweth; this is commonly bought therefore by weight, where- as the other is sold by measure. As for the foresaid earth of Vmbria, it serueth only for to polish and giue a glosse to clothes: for why should I scorne or thinke much to handle this matter al- so? seeing there is the expresse law or act Metella, prouided for Fullers, the which C. Flaminius and Lu. Amylius, when they were Censors, proposed vnto the people for to be enacted; so care- full were our predeceffors, to take order for all things. To come then to the myserie of Fullers craft: First they wash and scour a piece of cloth with the earth of Sardinia, then they perfume it with the smoke of brimstone, which done, they fall anone to burling of it with Cimolia; pro- uided alwaies that it be the right and haue the natieue colour, for if it be sophisticat, it is soone knowne by this, that it waxeth blacke, and wil chaune and cleaue, if it come after sulphur: and if it be the true Cimolia, it doth refresh and giue a cheerefull hew to precious and rich colors, yea it setteth a certain glosse and lustre vpon them, if they were made duskyish & sad by the smoake of sulphur. But in case the clothes be white, then the common chaulke is better to be vsed: pre- sently after the brimstone: for hurtfull it is to other colors. In Greece, they vse in stead of Ci- molia, a certaine plastre which they haue from Tympe. Yet is there another kind of chalke or white cley, named Argentaria, for that it giueth a glistering siluer color to clothes. Howbeit, one sort more there is of chalk, which of all others is most base and least esteemed; this is that chalke, wherewith our auncestours in old time ordained to whiten the cirque, in token of victo- ry: wherewith also they vse to marke the feet of those slaues which were brought ouer from be- yond sea, to be bought and sold in the markets: such an one somtime was that Publius, the deu- lfer of riming and wanton jestures vpon a stage: such another was his cousin germaine, Manilius M. Antiochus, the Astrologer; yea, and Taberius Erotes the excellent Grammarian: whom all three, our great grandfathers saw in that manner brought ouer in one and the same ship.

CHAP

CHAP. XVIII.

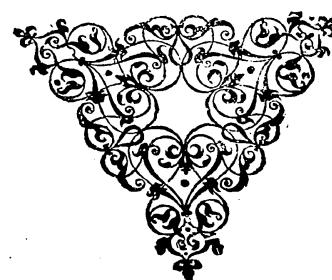
¶ Who they were in Rome, and of whom enfranchised, that of slaues rise to be mightie, and of exceeding wealth.

BVt what meane I to stand vpon those who had learning to commend and bring them into some state of credit and honour? Haue not the same forefathers of ours seene in the like plight standing within a cage, with a marke of chaulke vpon their feet, and a locke about their heeles, Chrysogonus the slaue to Sylla, Amphion to Qu. Catulus, Here to Lu. Lucullus, Demetrius to Pompey, Ange the bondmaid to Demetrius (though she was thought to be the base daughter of Pompey,) Hipparchus the slaue of Antonius, Menas and Menecrates of Sex. Pompeius, and an infinite sort of others, whom I cannot reckon vp; and yet they all being by their masters enfranchised, became wonderfull rich by the bloudshed and goods of Romane citizens, in that licentious time of proscriptions. Well, this was the marke of slaues set out by companies in the market to be sold: and this is the opprobrious and reprochful note, to twit those by, that in their fortunes are growne insolent. And yet we in our daies haue knowne the same persons to climbe vnto the place of highest honour and authority, in so much, as we haue seene with our owne eies the Sen- nat (by commandement from Agrippina the Empreffe, wife to Claudius Caesar) to decree vnto en- franchised slaues, the robes of Pretours, with the badges and ornaments to that dignity belong- ing, yea, and such to bee sent againe as it were with the axes and knitches of rods decked with Lawrell, into those countries to gouerne, from whence they came at first poore slaues with their feet chalked and marked for the market.

CHAP. XIX.

¶ Of the earth of Galata, and Clupea: of the Balearie earth, and Ebusitana.

OVER and aboue those before rehearsed, there be other sorts of earth, hauing a property by themselves, which I haue named heretofore, but in this place I am to set downe their na- ture and vertues also. There is a kind of earth comming out of the Isle Galata, and about D Clupea in Affricke, which killeth scorpions: like as the Balearike and Ebusitane earth, as the death of other serpents.



THE



THE XXXVI. BOOKE OF
THE HISTORIE OF NATVRE,
WRITTEN BY C. PLINIUS
SECVNDVS.

The Proem.

CHAP. I.

¶ The natures and properties of Stones: The excessive expence in columnes and build-
ings of Marble.



It remains now to write of the nature of stones, that is to say, the principal point of all enormous abuses, and the very height of wastful superfluities, yea though we should keep silence, and say nothing either of precious stones and Amber, or of Chrystall and Cassidonie. For all things els which we haue handled heretofore euen to this Booke, may seem in some sort to haue been made for man; but as for mountaines, Nature had framed them for her owne selfe; partly to strengthen (as it were) certaine ioints within the veines and bowels of the earth; partly to tame the violence of great riuers, & to break the force of surging waues and inundations of the sea; and in one word, by that substance and matter whereof they stand, which of all others is most hard, to restraine and keep within bounds that vnruely element of the water. And yet notwithstanding, for our wanton pleasures and nothing els, we cut and hew, we load and carry away those huge hills and inaccessible rockes, which otherwise to passe only ouer, was thought a wonder. Our Ancestors in times past reputed it a miracle, and in manner prodigious, that first *Annibal*, and afterwards the *Cimbrians*, surmounted the Alps: but now, euen the same mountaines wee pierce through with picke-axe and mattocke, for to get out thereof a thousand sorts of marble; wee cleaue the capes and promontories: we lay them open for the sea, to let it in; downe we goe with their heads, as if wee would lay the whole world euen, and make all leuell. The mightie mountaines set as limits to bound the frontiers of diuers countries, and to separate one Nation from another, those wee transport and carrie from their native seat: ships wee build of purpose for to fraught with marble: the cliffes and tops of high hills they carrie too and fro, amid the waues and billowes of the sea, and neuer feare the danger of that most fell and cruell element: wherein verily wee surpasse the madnesse and vanitie of those, who search as high as the clouds for a cup to drink our water cold; and hollow the rocks that in manner touch the heauen, and all to drink out of * yce. Now let euery man thinke, with himselfe what excessive prices of these stones hee shall heare anone, and what monstrous pieces and masses he seeth drawne and carried both by land and sea; let him consider withall, how much more faire and happy a life many a man should haue without all this, and how many cannot chuse but die for it, whensoever they go about to doe, or if I should speake more truely, to suffer this enterprise: also, for what vse else, or pleasure rather, but onely that they might lie in beds and chambers of stones that forsooth are spotted, as if they neuer regarded how the darknesse of the night bereaueth the one halfe of each mans life of these delights and ioies. When I ponder and weigh these things in my mind, I must needs think great shame, & impute a great fault to our forefathers that liued long since, & blush in their behalfe. Lawes were enacted, and prohibitions published by the Censors, and those remaining vpon record,

* yce, bibatur
glacie, for hey
held Crystall
to be a kinde
of yce.

A cord, forbidding expressly, That neither the kernelly part of a Bores neck, nor dormice, & other smaller matters than these to be spoken of, should be serued vp to the boord at great feasts: but as touching the restraint of bringing in marble, or of sailing into forraine parts for the same, there was no act or statute ordained.

CHAP. II.

¶ Who was the first that shewed Marble stones in Columnes, or any publicke workes at Rome.

But some man haply might reply againe vpon me, and say: what need was there of any such Bordinance, considering there was no marble in those daies brought in from strange countries? Vnto whom I answer, That it is a meere vntruth, for euen our progenitors, of whom I speake, saw well enough how in that yere when *M. Scaurus* was *Ædile*, there were not fewer than 360 pillars of marble transported to Rome, for the front and stage of a Theater, which was to continue a small while, and scarcely to be vsed one moneth to an end: and yet no law there was to checke and controule him for it. But it may be inferred againe, the Magistrats winked heretofore, because he did all this for a publicke pleasure to the whole citie, during the plaies exhibited by him in his *Ædileship*: marrie that is it that I would haue, What reason I pray you had they so to doe? By what means more doe abuses and inormities creepe into a citie or state, than by a publicke president giuen? for I assure you it was nothing else but such examples at the first C that brought those other things, I meane, yvorie, gold, jewels, and precious stones, to be vsed by priuat persons, so commonly as they be, in their houses, plate, and ornaments. And what haue we left and reserved at all for the very gods to haue, since that we lay so much vpon our selues? but say that in those daies they did tolerat this excesse in *Scaurus*, because of the pastimes he did exhibite to the whole city; What, were they silent also and made no words, when the said *Scaurus* caused the biggest of all these columnes (yea those that were fortie foot high within twain, and the same of Lucullean black marble) to be erected and placed in the court before his owne house in mount *Palatine*? And least any man should say, that this is done in secret and hucker mucker, know he, That when these pillars were to be carried vp into the mount *Palatine* where D his house stood, the Baillife that had the charge of the publick sinkes vaulted vnder the ground, dealt with *Scaurus* for good securitie, yea, and demanded cautions and sureties for satisfying of all harmes and dammages that might be occasioned by their carriage, so huge and heauie they were. Considering then this bad example, so prejudiciall to all good manners, and so hurtful to posterity, had it not bin better for the city to haue cut off these superfluities by wholsome laws and edicts, than thus to permit such huge and proud pillars to be carried vnto a priuat house vp into the *Palatine* mount, euen vnder the nose of the gods, whose images were but of earth, and hard by their temples that had for their couers and louers no better than such as were made of potters cley?

CHAP. III.

¶ The first man who had at Rome for his owne vse, pillars of Marble brought from forraine Lands.

Neither can it be alledged for excuse of this tolleration in *Scaurus*, that hee tooke the vantage and spied his time when the city of Rome was not ware of any such matter toward, as hauing not been acquainted beforetime with the like, and therefore he stale vpon them with these superfluous pompes, as doubting nothing lesse than such new deuises, and therefore hauing no time to prevent and stay them: for long before this, *L. Crassus* that great Orator, who was the first that enriched his house (within the same *Palatium*) with pillars of outlandish marble, although they were but of the Quarry in *Hymettus* hill, and neither more in number than six, nor carying in length aboue 12 foot apiece, was reprobued and reproched for this pride and vanity by *M. Brutus*, who among other hot words and biting terms that passed interchangeably between them, taunted him by the name of *Venus Palatina*. Certes, considering how all good orders and customs otherwise were trodden vnder foot, weare to presume thus of our predeceffors, That when they saw other injunctions and prohibitions as touching diuers abuses crept in, take

* Surnamed
Lemnia; be-
cause the
Lemnians de-
dicated it.

he made, that he well deserued the name which went of him. I wil lay abroad some smal pieces G as arguments of his handiwork, and those only that may testifie his fine head & rare inuention: neither wil I alledge for prooffe hereof, either the beautiful image of *Iupiter Olympius*, which hee made at Olympia; nor the stately statue of * *Minerua* that he wrought at Athens, which carried in height 26 cubits, and was all made of Iuory and gold: but I will take the shield or targuet that the said goddesse is portraied with; in the embossed and swelling compasse whereof he ingraued the battell wherin the Amasons were defeated by [*Teseus*], within the hollow part and concauitie he inchaufed the conflict between the gods and the gyants: vpon the shoos or panto- fles that he weareth, he portraied the fight betwixt the *Lapithae* and the *Centauris*; so full com- pact of art was euery thing about her, and so curiously and artificially contriued. Now in the base or piedstall vnder the statue, the work that was cut he called the Genealogie of *Pandora*: A H man might there see the natuirty of the gods, to the number of 30; among them the goddesse *Victory*, of admirable workmanship. Moreover, artificers that are seen & skilful in these matters do greatly admire the fel serpent, as also the monster *Sphinx* made in brasse, vnder the very spear that *Minerua* holdeth in her hand. This may serue by the way in a word or two, touching that famous & most renowned Artift *Phidias*, whom no man is able to commend sufficiently, that it may be known likewise that the sufficiency of his workmanship was the same stil, euen in small matters as well as great.

To come now to *Praxiteles*: what time hee liued I haue declared already in my catalogue of Founders and Imageurs in brasse: who albeit he was singular in that kind, yet in marble he went beyond himselfe: his workes are to be teen at Athens, in that conspicuous street called *Cerau- nium*: but of all the images that euer were made (I say not by *Praxiteles* onely, but by all the workmen that were in the world) his *Venus* passeth that hee made for them of *Gnidos*: and in truth so exquisit and singular it was, that many a man hath embarked, taken sea, and sailed to *Gnidos* for no other busines, but onely to see and behold it. Hee made two of them, and sould them both together; the one with a vaile and arrayed decently in apparell, which in that regard the men of *Cos* bought: for being put to their choice, they like honest men preferred it before the other which was naked (notwithstanding *Praxiteles* tendred them both at one and the same price) in the good mind that they carried, and hauing respect and regard vnto their grauity and modest carriage of themselves: that which they refused and reiected, the *Gnidians* bargained for: and indeed, to speak of wo. kman ship, it was infinitely better, and there was no comparison K betweene them, by the generall fame and opinion of all men: and verily King *Nicomedes* would afterwards gladly haue bought it againe of the *Gnidians*, and offered them enough; for he promised in consideration thereof to discharge al debts that their city was engaged in, which were very great summes; but they would not giue eare or hearken vnto him: content they were rather to liue in debt and danger still, yea and to abide and endure any forfeitures, exigents, ex- cutions, and extents whatsoeuer, than to part with their *Venus*. And to say a truth, good reason they had so to do, for, that one image of *Praxiteles* his making was their chiefe credit, innobled their city, and drew resort from all parts thither. This *Venus* was shrined in a little chappell by her selfe within a tabernacle; but of purpose so deuised, that it might be set open on all sides, L for to be seen and viewed all and whole on euery part: wherewith the goddesse her selfe (as men were verily perswaded) was well enough pleased, and shewed her contentment therein to al com- mers; for looke vpon her as one would, amiable shee was, and admirable euery way. It is repor- ted, that a wretched fellow was inamoured of this *Venus*, and hauing lurked one night secretly within the chappell, behaued himselfe so and came so neere vnto the image, that he left behind him a marke of his leaud loue and beastly lust; the spot of which pollution appeared afterward vpon the body. In the same *Gnidos* there be diuers other pieces more of Marble, wrought by excellent workmen; to wit, one god *Bacchus* made by *Brixiaides*, and another by *Scopas*, of whose handiwork there is *Minerua* also: yet there goeth no speech nor voice of any but onely of *Venus* as abovesaid; than which, there cannot be a greater argument to prooue the excellencie of M *Praxiteles* his work; they all seem but foils, to giue a lustre to his *Venus*. Of his making there is the picture of *Cupid* also, that *Cicero* reproched *Verres* with; the same for whose sake there is such resort and pilgrimage to *Thespia*; & which standeth now shrined within the * Schooles of

* Scholis: cer-
tain galleries
where learned
me were wont
to meet, & ei-
ther walking
or sitting to
discourse of
learning, and
to dispute.
And yet there
were other
Scholes: with-
drawing pla-
ces: in baines,
where those
that came
gaue atten-
dance untill
there were
reume void by
oth: going
forth.

A of *Ostania*. He made also another *Cupid* all naked, for them of *Parium*, a city within *Propontis*, howbeit in the nature of a colony gouerned by the Roman lawes, and owing seruice to their high court: comparable it was vnto *Venus* at *Tenedos*, as well for beauty and excellency of work- manship, as for the like abuse and villanie done vnto it; for one *Alchidas* a *Rhodian* loued this *Cupid*, and (a shamefull thing to speake) defiled both himselfe and it, like a most filthy and pro- faine villaine. Moreover, at *Rome* there be diuers pieces of *Praxiteles* his making, to wit, *Flora*, *Triptolemus*, and *Ceres*, within the gardens of *Seruilus*; the images of *Good-adventure*, and *Good- fortune* both, which are in the *Capitoll*; also the religious women of the order of *Bacchus*, to wit, the furious *Menades* which also they name *Thyades*: also the holy nuns or votaries called *Cary- atides*; and *Silenus*, standing amongst the Monuments and Bookes within the Librarie of A- B *Asinius Pollio*, together with *Apollo* and *Neptune*. Thus much may suffice to haue beene spoken of *Praxiteles*.

Praxiteles left behind him a son named *Cephisodorus*, who was his fathers heire euery way, as well of his excellent and singular cunning as his worldly goods: of his handy worke there is to be seene at *Pergamus*, a couple of little boies clipping, embracing, and kissing one another: a most dainty and exquisit piece of worke, and much spoken of and highly praised: a man that saw them would verily beleeue and say, they dented with their fingers into a bodie of flesh, rather than a statue of marble. At *Rome* there be images that came out of his hand, to wit, *Latona* within the temple vpon mount *Palatine*, *Venus* within the librarie or monuments of *Asinius Pol- lio*, *Aesculapins* and *Diana* in the temple of *Iuno*, standing within the pourpris or quadrant of Ofa- C *uias* galleries.

Scopas followeth these in order of narration, but striueth to match them in praise of worthy workemanship: hee engraue and wrought the images of *Venus*, *Pothos*, and *Phaeton*, which three be honored among the *Samothracians* in all ceremonious deuotion, as right holy saints: like- wife of *Apollo*, which standeth within mount *Palatine*: of the fierie goddesse *Vesta*, sitting in a chaire, accompanied with two * hand-maidens set vpon the ground of each hand of her, which are to be seene within the gardens of *Seruilus*: like vnto which, there be other such *Damofels*, and Lady *Vesta*, remaining within the monuments or Librarie of *Asinius* before said: where also there is one *Canephoros*, to wit, a virgine bearing vpon her head a flasket of holy reliques: all of *Scopas* his making. But of all that euer he wrought, there is most account made of those images D which are in the chappell of *Cneus Domitius*, within the cirque of *Flaminius*, to wit, *Neptune* himselfe, and dame *Thetis*, and her sonne *Achilles*; the Sea-nymphs or Meere-maides also called *Nereides*, mounted vpon Dolphins, Whales, and mightie Sea-horses called *Hippocampi*, and sitting vpon them: moreover, the sea trumpeters *Tritones*, with all the quire and traine attending vpon sir *Pborcus* a Sea-god, and the mighty fishes called *Pristes*, besides many other monsters of the sea: all wrought by one & the same hand so curiously, that if he had sitten about the making of them al his life time and done nothing at all els, a man would haue thought it worke enough, and a great deed. But moreover and besides these aboue rehearsed, and many more which wee are not come to the knowledge of, we haue here with vs at *Rome* the image of *Mars* made gyant like after the manner of a colosse, yet sitting within the temple of *Brutus Callaicus*, which stands E close vnto the said cirque, in the way as men goe from thence to the gate *Laticana*. In the same place there is moreover another *Venus* naked, and wrought by the hands of *Scopas*, which seemeth to goe beyond that other *Venus* of *Gnidos* that *Praxiteles* made; which image alone were able (no doubt) to giue name to any other citie where it should stand, and to innoble the place: But at *Rome* verily there bee so many pieces besides, and those so stately and sumpt- uous withall, that they obscure and darken it (as it were) in some sort. Moreover, the excee- tuous withall, that they obscure and darken it (as it were) in some sort. Moreover, the excee- ding great affaires and the busie negotiations (whereof there is such a multitude and a world as it were in that Citie) withdraw all men from the contemplation and beholding of such things, bee they neuer so singular: for to say a truth, it belongeth rather to idle persons to look F quiet and silent: which was the cause that no man knoweth who was the workeman that made the images of *Venus*, which *Vespasian* the Emperour dedicated in the rampars and building of his temple of *Peace*: and yet if it stood any where else than at *Rome*, it might seeme to be nothing inferiour in name to the antient workes of old time. As little certaintie there is likewise of that image wrought in marble, which represents dame *Niobe* ready to die, together with

* Symplegma:
this may be
meant of two
wr. flers: be-
ing at handy-
gripes.

* Chamaeteras.

with all her sweet children, and standeth in the temple of *Apollo* surnamed *Sofianus*, whether *G Scopas* or *Praxiteles* made it: no more than father *Ianus*, which *Augustus Caesar* brought out of Egypt and dedicated in his owne temple, is known out of whose shop it came; notwithstanding now it be gilded all ouer: semblably, there standeth in the courtly pallee of *Ostania*, the image of *Cupid* holding a thunderbolt or lightning in his hand, ready to shoot; but it is a question who was the maker of him? And yet this is affirmed, That the same *Cupid* was made by the liuely partner of *Alcibiades*, who at that age was held to be the fairest youth that the earth did beare. In the same place, and namely in the schoole or gallerie of learned men, there be many more images highly commended, and yet no man knoweth who wrought them: As for example, four that resemble *Satyres*; of which, one seemeth to carry on his shoulders prince *Bacchus* arraigned like a girtle in a side coat or gown; another likewise beareth yong *Bacchus* in the same order, clad in the robe of his mother *Semelle*; the third maketh as though he would still the one *Bacchus* crying like a childe: the fourth offereth the other a cup of drink to allay his thirst: furthermore, there be two images in habit and form feminine, representing gales of wind, & these seem to make sail with their owne clothes. As doubtfull also it is, who made the images within the railed inclosure in *Mars* field named *Septa*, which do represent *Olympus*, *Pan*, *Chiron*, and *Achilles*; and yet so excellent pieces they be, that men esteeme them worthy to be kept safe, & satisfaction to be made with no lesse than their death, vnder whose hands and custody they should miscarrie. But to retorne againe vnto *Scopas*; he had concurrents in his time, and those that thought themselves as good workmen as himselfe, to wit, *Bryaxis*, *Timotheus*, and *Leochares*, of whom I must write jointly together, because they joined all foure in the grauing and cutting of the stately monument *Mausoleum*.

1 The temple of Diana in Ephesus.
2 The sepulchre of Mausoleus.
3 The colosse of the Sun at Rhodes.
4 The statue of Iupiter Olympias.
5 The walls of Babylon.
6 The Egyptian Pyramids.
7 The obeliske of Semiramis.
Sec. Cei. Rhed. antiquas. test. 1.23 c. 6.
* Dalerbarnius suspecteth this place: but me thinks a man may conceiue, euer by the very words of Pliny, that vpon the first pyramid of 2 cubits ther was raised another spire which ledded by 24 degrees, like as wee may see in many steeples with vs) and that might carry so many foot, as being added to the rest, will make vp the whole 140 from the ground.

This *Mausoleum* was the renowned tombe or sepulchre of *Mausolus*, a petty king of *Caria*, which the worthy lady *Artemisia* (sometime his queene, and now his widow) caused to be erected for the said prince her husband, who died in the second year of the hundredth *Olympias*: and verily so sumptuous a thing it was & so curiously wrought, by these artificers especially, that it is reckoned one of those matchlesse monuments which are called the * seuen Wonders of the world: from North to South it carrieth in length, 63 foot; the two fronts East and West, make the breadth, which is not all out so large; so as the whole circuit about, may containe foure hundred and eleuen foot: it is raised in height fise and twenty cubits, and inuironed with fixe and thirty columnes: on the East side, *Scopas* did cut; *Bryaxis* chose the North end; that front which regardeth the South, fell to *Timotheus*; and *Leochares* engraued at the west side: but Queene *Artemisia* (who caused this rich sepulchre to be made for the honour and in the memoriall of her husband late deceased) hapned her selfe to depart this life before it was fully finished: howbeit these noble artificers whom she had set a worke, would not giue ouer when she was dead and it gone, but followed on still and brought it to a finall end, as making this account, that it would be a glorious monument to all posterity, both of themselves and also of their cunning: and in truth at this day, it is hard to judge by their handy worke, who did best. There was a fifth workman also came in to them; for about the sidewall or wing of the tombe, there was a *Pyramis* founded, which from the very battlements of the said wal was carried to the height of the building vnderneath it: the same grew smaller still as the worke arose higher, and from that height at euery degree (which in the whole were 24) was narrowed and taken in, vntill at last it ended in a pointed brooch in the top whereof, there is pitched a coach with foure horses wrought curiously in marble; and this was the worke of *Pythis* for his part. * So that reckoning this chariot with the sharp spire, the *Pyramis* vnder it vnto the battlements, and the body of the sepulchre founded vpon the bare ground, the whole worke arose to an 140 foot in height. But to come to some particular works of *Timotheus* before said: his hand wrought that statue of *Diana* in marble which standeth at Rome in the chappell of *Apollo*, scituate in mount *Palatine*: and yet the head belonging thereto, which now this image carrieth, *Antianus Evander* set vnto it in place of the former.

As touching *Menesstratus*, men haue in high admiration *Hercules* of his making; as also *Hecate*, which standeth in a chappell at *Ephesus* behinde the great temple of *Diana*: the sextons or wardens of which chappell, giue warning vnto those that come to see it, that they looke not too long vpon it for dazling and hurting their eyes, the lustre of the Marble is so radiant and splendid.

I can

A I cannot range in a lower degree vnto these, the three *Charites* or *Graces*, which are to be seen in the Bassie court before the Citadell of *Athens*, the which * *Socrates* made; I meane not that *Socrates* whom I reckoned among painters, although some thinke he was the same man. As for *Myro* (whom I commended for a singular imageur in brasse) there is in marble of his portraying and ingrauing, an old woman drunken, which he made for them of *Smyrna*; a piece of worke as much esteemed and spoken of, as any other. And here I cannot but thinke of *Pollio Asinius*, who (as he was a man of a stirring spirit and quick conceit) delighted to haue his librarie and monuments to be enriched with such antiquities as these: for among them, a man shall see the *Centaur* carry behind them vpon their croup, the *Nymphs*, which *Archeus* wrought; the *Muses* named *Thespiades*, of *Cleomenes* his cutting; *Oceanus* and *Iupiter*, done by the hand of *Eutychus*; the statues on horse back resembling women called *Hippiades*, which *Stephanus* wrought; joint Images of *Mercurie* and *Cupid*, called *Hermocrates*, the workmanship of *Tauriscus* (I meane not the grauer, of whom I spake before, but another *Tauriscus* of *Tralleis*;) *Iupiter* surnamed *Xenius* or *Hospitalis*, which came out of the hands of *Pamphilus* an apprentice to *Praxiteles*: as for the braue piece of worke, to wit, *Zetus*, *Amphion*, *Dirce*, the Bull, and the bond wherewith *Dirce* was tied, all in one entier stone, which was brought from *Rhodes* to Rome; it was done by *Apollonius* and *Tauriscus*; these men made question of themselves, who should be their fathers? professing in plaine termes, that *Memocrates* was taken and suppoled their father, but indeed *Artemidorus* begat them, and was their father by nature; & in the same place among other monuments, the statue of father *Bacchus* made by *Eutychides*, is much commended. Moreover, neare vnto the C gallerie of *Ostania*, there is the Image of *Apollo*, wrought by *Phyliscus* the *Rhodian*; and hee standeth in a chappell of his owne. Item, *Latona*, *Diana*, the nine *Muses*, and another *Apollo* naked. As for that *Apollo*, who in the same temple holdeth in his hand a harp, *Timarchides* was the workman of it; but in the precinct or cloister of the said galleries, and in the chappell of *Iuno*, there is the goddesse herselfe curiously made in marble, the handy worke of *Dionysius* and *Polycles*; but the image of *Venus* in the same place, *Phyliscus* wrought: al other statues there, came out of *Praxiteles* his hands. Moreover, *Polycles* and *Dionysius*, the sons of *Timarchides*, made that *Iupiter* which is in the next chappell; the images of *Pan* and *Olympus*, wrestling together in the same place, were the workmanship of *Heliodorus*; and this is one of the fairest images coupled together as wrestlers, that are knowne in the world; as for *Venus*, bathing her selfe, he also made her; but *Dadalus* standing by, *Polycharmus*. As touching one piece of worke that *Lyfias* made, it may appear how highly it was esteemed, by the honourable place wherein it stood: for *Augustus Caesar* late Emperor of happy memorie, to the honour of *Ostianus* his father, dedicated it in mount *Palatin* ouer the triumphant arch there, and placed it within a shrine or tabernacle adorned with columnes: but what might this worke be? surely nothing else but a chariot with foure horses set vnto it, *Apollo* and *Diana*, all of one entire piece. Within the gardens of *Servilius*, I finde there is great praise of *Apollo* made by *Calamis*, that singular grauer in mettall: the religious priests and prophetesses also of *Phæbus*, called *Pythææ*, done by *Dactylis*; and *Callisthenes* the *Historiographer* statue, wrought by *Amphistratus*.

Moreover, many cunning workmen there were, whose same notwithstanding is obscured, by E reason that albeit many singular pieces & those vnmarchable, haue passed through their hands, yet for that many haue ioined in the workmanship together, the number hath bin a checke and barre to the excellency of some that went beyond their fellows, for neither is there one among them that goeth away cleare with the honor from the rest, nor many together can well be named for one thing: and this may be scene in the image of *Laocoon*, which remaineth within the pallee of Emperor *Titus*, a piece of worke to be preferred (no doubt) before all pictures or cast images whatsoever; and yet we know not what one artificer to praise for it. *Agelander*, *Polydorus*, and *Athenodorus*, *Rhodians*, most excellent workmen all, agreed by one generall consent to expresse liuely in one entire stone, *Laocoon* himselfe, his children, and the wonderful intricate winding of the serpents, claspings and knitting them about: semblably, the houses *Palatine* of the F *Cæsars*, a man shall see fully furnished with right excellent statues, which *Craterus* and *Pythidorus*, *Polydectes* and *Hermolaus*, another *Pythodorus* also joynd with his fellow *Arthemion*, wrought together, as also those that *Aphrodisius Trallianus* alone himselfe, did cut. As for the temple called *Pantheon*, which *Agrippa* built, *Diogenes* of *Athens* enriched it with marble images. The *Virgins* also going vnder the name of *Caryatides*, erected vpon the chapters of the columnes in that temple,

Ccc 3

* Some take this for the wife Philosopher so famous

CHAP. VI.

¶ When first began Marble Stones to be used in building of privat houses. Who began at Rome to parget and cover walls with thin leanes of Marble. In what ages each kinde of Marble came into use and request. Who inuented cutting of Marble into thin plates: the deuise and manner thereof. Of sand proper for building.

*So named, by occasion of the statues of 14 nations there erected, as appeareth a little after.

*For in Greek Batrachos is a frog, and Saurus a lizard.

temple are commended, as few like vnto them for workmanship: like as the other images which G be aduanced vp to the very top of the lantern of the foresaid temple, are thought to be excellent pieces: howbeit, for that they stand so high and cannot well be discerned, lesse speech there is of them. As touching that *Hercules*, in the honour of whom the Carthaginians were won euery yere to sacrifice the flesh of mankind, it is an image not regarded; for he hath no place in any temple or chappell, neither is he erected vpon pillar, no nor so much as vpon a base, but standeth vpon the bare ground, just ouer-against the entrie to those galleries in Rome, called *Ad Nati- ones: howbeit, the workmanship of this *Hercules* is not to be despised. There stood also beneath the nine Muses called *Thepiades* vnder the temple of *Felicity*, and as *Varro* saith, one *Iunius Pisticulus* (by place a gentleman of Rome) was enamored vpon one of them, so beautifull they were made: and yet to this day, *Pasticules* cannot look enough thereupon, but hath the same in great admiration: who also wrote fife books, comprising all the famous and principall pieces of worke that are to be found in the world. This *Pasticules* was borne in the marches and coasts of Italy called *Græcia*, and together with the townes of that tract, was made a Romane free denizen; being himselfe also a good cutter in stone, hee made that image of *Iupiter* in Yvory which standeth in the chappell of *Metellus*, in the way which leadeth into [Mars] field. It happened vpon a time, that being about the Arsenall, where certaine wild beasts were, newly brought out of Affricke, hee looked in at a grate to behold a lyon and to take out the counterfeite of him; but as hee was ingrauing in stone according to the patterne, behold, out of another cage a panther brake loose, to no small danger of that most curious and painfull workman: it is said, that hee made many works; but in particular which were of his doing, it is not precisely set down. Moreover, *M. Varro* doth highly magnifie *Arcefilaus*, of whose handy worke hee saith that hee had a lionesse in marble, and certaine winged *Cupids* playing with her: of which, some seemed to hold her fast bound, others forced her to drinke out of a horne, others againe would seeme to shooe her with their fockes; and all this prettie anticke worke was of one entire stone. The same *Varro* writeth, that *Coponius* made the images of the foureteene Nations, which are about the galleries or theatre of *Pompeius*. I finde also by my reading, that *Canachus* (whom I commended for a good founder or imageur in brasse, in my catalogue of such artisans) wrought in marble likewise and cut many faire statues: neither is it meet, that *Sauos* and *Batrachus* should be forgotten, who wrought the chappells that are within the clofe or cloister belonging to the galleries of *Ostia-ua*, notwithstanding they were themselves Lacedæmonians borne. Some also are of opinion, that they were exceeding rich men, and that of their owne purses they defraied the charges of building those chappells, hoping to haue had the honour to be immortalized with the inscriptions in the forefront thereof: which being denied them, yet in another place and after another sort, they made meanes to eternize their name; for they deuised in the foot or base of euery pillar (as it appeareth yet at this day) to cut the forme of a * frog and a lizard, to represent thereby their owne names. Moreover, I cannot conceale from you one pretty thing to be obserued, and which we all know to be true, That in one chappell of *Iupiter*, all the pictures therein, as also all the ceremoniall seruice, thereto belonging, are respectrue altogether to the foeminine sex: the which happening at first by meere chance, continued afterwards: for when the temple of *Inno* was finished, the porters who had the carriage of the images ordained there to stand, mistooke their marks and carried thither those which were appointed for the chappell of *Iupiter*; and contrariwise those for *Inno*, into the chappell of *Iupiter*; which beeing once done, was not altered againe, but taken for a presage, and religiously euer after kept, as if the very gods themselves had so ordered and appointed it, and made a counterchange: which is the reason also, that in the foresaid chappell of *Inno*, there is that kinde of seruice which was meant for *Iupiter*.

To conclude, there haue been certaine workemen that haue growne to great name, by cutting and grauing in small pieces of marble; and namely, *Myrmecides* deuised to inchafe in marble, a charriot and foure horses, and a man to driue the same, in so smal a roome, that a poor flie might couer all with her little wings. As for *Callicrates*, he cut in stone the similitude and proportion of pismires in so narrow a compasse, that a man cannot easily discern the feet and other parts of the body.

CHAP.

Thus far forth haue I discoursed of the cutters and ingrauers of marble, and of those excellent artificers, who haue bin most renowned. In which treatise I remember wel, that the dis- apred and spotted marble all this while was of no regard: for all the antique pieces which I haue rehearsed, were made of the marble of *Thafos*, of the Islands *Cyclades*, as also of *Lesbos*; and yet this inclineth to a blackish or blewish colour somewhat more than the rest. As for marble spotted in sundry colours, as also of the ordering, workmanship and vse of any kinds of marble in building, *Menander*, who in his time was most curious of all others in discussing all such superfluitie, dealt first therein, but seldome medled he withall. Howbeit, true it is, that at length pillars of marble were taken vp to be vsed in temples, not vpon any pride, brauerie, or magnificence (for as yet they knew not what such things meant) but for that it was thought, that they could not be erected nor beare vpon any thing stronger; and in that manner was begun the temple at *Athens* of *Iupiter Olympias*, out of which, *Sylla* brought those columnes which serued for his house and pallace in the Capitoll. Howbeit, euen in *Homers* time a difference there was made betweene ordinary stone and marble: for this Poet saith plainly, that *Paris* caught a rap vpon the mouth with a marble stone: and yet whensoever he extollet and setteth out in the highest degree the most stately pallaces of kings and princes, he neuer makes mention of any other matter to adorne them withall, but of *Brasse*, *Gold*, *Electrum*, *Siluer*, and *Yvory*, and not one word of *Marble*. But, as I take it, the first time that these marbles of sundry spots and colors were discovered, was in the quarries of the Islanders of *Chios*, by occasion that they digged for stone to fortifie their city with walls; whereupon *M. Cicero* plaies merily vpon them with a pleasant conceit, for when they made shew to all that came, and among the rest to him, what walls they had built of marble, and seemed to take great pride in their sumptuous and magnificent building; What ado is here (quoth *Cicero*) I would haue maruelled much more at your wall, and thought you had done a greater deed, if you had built it out of the quarry of *Tyburnum*. Certes, if marble had bin of any name and credit in old time, painters had not bin so highly honored as they were, nay, had there bin (thinke ye) any reckoning made of them at all?

As touching the manner of sitting marble into thin plates, therewith to couer and feel as it were the outsidcs of walls, I wot not well whether the inuention came from *Caria*, or no. The palace of *Manfolus K.* of *Caria*, built at *Halicarnassus*, is the antientest building that I can find in any record, garnished, set out and enriched with marble of *Proconnesus*, notwithstanding all the wals were reared of brick. This prince changed his life in the second yere of the 100 Olympias which fel out to be the 302 yere after the foundation of the city of Rome. As for our Romans, *Cornelius Nepos* writeth, That *Mamurra*, borne at *Formia*, a gentleman of Rome, and sometime a Prouost ouer the Pioners, Masons, Smiths, and Carpenters vnder *Cesar* in France, was the first who couered all the walls throughout his house which he had vpon mount *Cælius*, with leaues of marble. Now when I speak of *Mamurra*, you must not be offended, and think that I ascribe the inuention hereof to a mean person; for I tell you, this is that *Mamurra*, whom the Poet *Catullus* my countryman of *Verona*, so tanted and reuiled in his verses; this is the man, whose house before said, testifieth better by prooffe and effect, than *Catullus* could by his Poeticke expresse, That he had laid vpon it and gathered into it all the riches of *Gallia Comata*: which was as much to say as all France, saue only *Prouance*, *Languedoc*, *Sauoy*, and *Dauphine*. And well it might be so, for *Cornelius Nepos* before named addeth moreover and saith, that he was the first man, who caused the pillars of his house to be of marble, & had not one of other matter, neither were those sleight and slender, but solid & massie, euen hewn out of the quarries either of *Carystus* or *Luna*. But after him, in proccesse of time, *M. Lepidus* who was ioined companion in the Consulship to *Catullus*, was the first man known to lay the sils, lintels, & cheeks of his dores thorowout his house with *Numidian marble*; being Consul in the 666 yere, reckoning from the foundation of Rome: but

but well shent and rebuked he was for his labor. And verily, this was the first Numidian marble G as far as I can find by any mention or token at all, brought ouer to Rome; not to serue in pillars only and pannels in the feeling of walls, as *Mamurra* imploied his Carystian marble, but in * middlewoikes, and in the basest of all, namely, in dore sils, lentils, and jambes. After this, *Lepidus* some foure yeares, succeeded Confull *L. Lucullus*, who, as it should seeme by that which fell out, gaue the name to Lucullean marble, for that he was so much delighted therien: he brought it first to Rome, and had a speciall fancy thereto, notwithstanding it were black otherwise: whereas all other men esteemed better of other coloured marble, or els spotted. This marble growes in an Island lying within the riuer Nilus, and no marbles (as many kinds as there be) took name of him that loued them, but it alone. But among these men that were giuen to build with marble, *M. Scaurus* was the first man, as I take it, that for the stage and forefront of his Theatre, made H the wals of marble: but whether the same were of slit and sawne marble, or laid with good found square ashler or no (as the temple of *Iupiter Tonans* in the Capitoll hill, is at this day built) I am not able to say for certaine: for as yet I do not reade or find by any sign, that Italy knew how to slit marble into leaues. But surely, whosoever deuised that inuention, to saw marble stone, and to slit it into leaues for to serue the turne of riotous and wastful persons, had a perillous head of his own, and a shrewd. But would you know the cast of slitting marble? It is done with a kind of sand, and yet a man would think that it were the saw alone that doth the deed; for when there is an entry once made by a very smal line or trace, they strew the said sand aloft al the length thereof: then they set the saw to it, and by drawing it to and fro, the sand vnder the teeth thereof, maketh way downwards still, & so the stone, as hard as it is, they cut through in a trice: now for this purpose the Æthiopian sand hath no fellow: and to this passe forsooth we are come, that we cannot haue marble to serue our turns, vnlesse we send as far as into Ethiopia: nay, we must bee provided of sand to slit our marble with, out of India; from whence in times past, during the anient discipline of Rome, it was thought too much and a shamefull thing, to fetch rich pearles. And yet this Indian sand is commended in a second degree; but the Æthiopian is the softer and better simply; for that sand cutteth smooth and cleane as it goeth, and leaues no race at all in the work; the Indian maketh not so euen and neat plates, howbeit, they that polish marble, fit themselves with this sand when it is burnt and calcined; for if they rub their leaues and plates therewith, it will make them slick & fair; for otherwise, if it be not calcined to a fine powder, of it self it is churlish and rugged, which is the fault likewise of the sand that commeth from *Naxos* and *Coptis*, which commonly is called the Egyptian sand; for these sands verily were vsed in old time to the cutting of marbles. Afterwards they met with a sand as good as the best, and went no farther than to a certain bay or creek in the Adriatick sea or Venice gulf, which being left bare when the tide is gone, they may at a low water easily discerne to haue bin cast vp by the flood. And now adaeas our sawyers of marble, make no more ado, but take the first sand they come by, (it makes no matter out of what riuer it be) this serues their turne well enough; and thus they abuse and deceiue the world, although few chapmen there bee that know what losse there is by their marble leaues sawne in that sort: howbeit, such grosse sand as that, first makes a wider slit in the main stone, and by consequence spendeth and consumeth more of the marble; again, there is more work and labour about the polishing thereof, the saw and sand before said leaue the L faces of the stone so rugged and vneuen: and by this meanes the plates become sleight and thin before they can be imploied. To conclude, the sand from Thebais in high Egypt, is very good to polish withall: like as the grit that commeth of grauelly stones or pumish ground, serueth very well for the said purpose.

CHAP. VII.

¶ Of Whetstones and Grindstones, comming out of *Naxos* and *Armenia*. Of diuers kinds of Marble.

For polishing of statues and images made of Marble; for cutting, filing, and trimming of precious stones, *Naxium* serued a long time, and was commended before any other stone: for by this word *Naxium* I vnderstand the whet-stones and grinde-stones that come out of the Island *Cyprus*; but afterwards, those which were brought from *Armenia*, woon the name from them, and were esteemed better.

As

A As for the sundry sorts of Marble and their colours, to discourse of them in generall, were needlesse, they are so well and easily knowne: and to reckon them all in particular, were endlesse, they be in number so many and infinit: for what corner of the world is there, where you shal not find one marble or other different from the rest? And yet in my Cosmography, I haue already written of the best and most excellent kinds of marble, as I had occasion to speak of the nations and countries where they be found. Howbeit, this would be noted, that all sorts of marble bee not found in quarries and rocks, that stand vpon veines thereof: for much you shall meet with, lying ebbe in the ground, and the same scattering by pieces here and there. But the green marble that commeth from *Lacedæmon*, is esteemed most precious, and to be more gay and pleasant than all other. As touching the marbles called *Augustum* and *Tiberium*, they were found in B Egypt first after that sort lying loose and scattered, during the time that *Augustus* and *Tiberius* were Emperors of Rome, of whom they took their name. And albeit these marbles bee flecked and spotted, yet they differ from the Serpentine marble called *Ophites*; for that the speckles in *Ophites*, do resemble those in a serpents skin, whereupon it took that name: whereas the other two be distinguished with spots after a diuers sort: for *Augustum* hath veines curled, after the manner of waues, running round as it were like whirle pooles; and *Tiberium* spreadeth rather abroad in strakes, winding yet and turning after the order of whitish haire. Neither be there any pillars found of the foresaid Serpentine marble, vnlesse they be very small. And of this marble there be two kinds: the white, which is gentle and soft: the blacke, which is churlish and hard. Both of them are said to ease the head-ache, and to cure the sting of serpents, if they be but carried about one in pieces, either hanging at the neck, or otherwise tied to any part. Some there be who prescribe the whiter kind to be applied accordingly for the phrensie and lethargy: howbeit against serpents, there be who commend especially about the rest, that which of the colour of ashes they commonly call * *Tephria*. As touching the marble of *Memphis* or great *Caire* in Egypt, named thereupon *Memphites*, it is of the nature of these * precious stones, rather than of quarries. The vse herof is to be ground into powder, & with vineger to be reduced into a liniment, for to be applied to those parts that are to be cauterized or cut: for it so astonieth and benummeth the member, that it feeleth no pain, either by the searing iron or the Chyrurgians lancet. The *Porphyre* marble, which also comes out of Egypt, is of a red colour: of which kinde, look which hath white spots or streaks running among, is called thereupon *Leucostictos*: And D quarries there be in Egypt, standing wholly vpon this marble, which yeeld so sufficient, cut and hew therout as big and as huge pieces as you will. *Triarius Pollio*, Procurator general vnder *Claudius Caesar*, in the prouince of Egypt, brought for the Emperour certain statues of this *Porphyre*, out of Egypt: which new deuise of his was not very well liked and accepted, for no man tooke example by him afterwards to do the semblable. The Egyptians also found in *Æthiopia* another kind of Marble, which they call *Basaltis*, resembling yron as well in colour as hardness: and thereupon it took the name. The greatest piece of this marble that euer was found, *Vespasian Augustus* the Emperour dedicated in his temple of *Peace*, and it was a statue resembling the riuer *Nilus*, with 16 little children playing about it, whereby is signified the number of cubits, to which height the said riuer riseth when it is at the highest. It is said also, that within the temple of *Serapis* in *Thebes*, a city of high Egypt, there is another statue not vnlike to this marble *Bazaltis*, and many think it was made for *Memnon*, & by report, euery day at the Sun-rising, so soon as the raies or beames do beat thereupon, it seemeth to cracke or cleaue. As for * *Onyx*, our antient writers were of opinion, That it was found in those daies vpon the mountains of Arabia, and no where els: yet *Sudines* saith, that it is gotten in Germany. *Cornelius Nepos* affirmeth, That there was at first great wonder made at the drinking cups of this stone: and afterwards, at the feet of tables and beds, of chaires and stoolles likewise thereof: howbeit, afterwards (quoth he) *L. Lentulus Spinter* shewed at Rome wine vessels, as big as good barrels, such as came out of the Isle *Chios* with wine: but within sue yere after by his saying, hee saw pillars also, and those 32 foot long, all of *Onyx* or *Chalcedonie*. But in proceffe of time this stone altered and varied much: F for *Cornelius Balbus* brought foure small pillars thereof, and shewed them in his Theatre for a strange and miraculous sight. And in my time I haue seen of them about thirty, much fairer and bigger, which went to the making of a Summer parlour for pleasure, that *Callistus*, one of the franchised slaues of *Claudius Caesar* (a man wel known for his exceeding riches and power) built for his owne selfe.

CHAP

* Here Pliny remembreth himselfe, and makes a third kind of *Ophites* as *Diocor.* did before him. * *Dioc.* saith it is no bigger than a little pebble or grauel stone

* or rather *Onyx* as *Chios* *Callistonic*

¶ Of the stone called *Alabastrites*: likewise, of *Lygdinus* and *Alabandicus*.

THis Onyx stone, or Onychitis aforesaid, some name Alabastrites; whereof they vse for to make hollow boxes & pots to receiue sweet perfumes and ointments, because it is thought that they will keepe and preserue them excellently well, without corruption. The same being burnt and calcined, is very good for diuers plasters. This Cassidony or Alabastrer is found about Thebes in Ægypt, and Damascus in Syria: and this Alabastrer is whiter than the rest: Howbeit, the best and principall simply is that which commeth out of Carmania: next to it in goodness is that of India: and then the Alabastrer of Syria and Asia. The least esteemed of all other, is brought out of Cappadocia, and no beauty or lustre it hath at all. In sum, come it from what country it will, those pieces which stand most of a yellowish colour, like hony, spotted also in the head and nothing transparent, goe for the best. And generally throughout, look where you meet with any in colour white, or resembling horne, is rejected for naught, like as whatsoeuer of it is like glasse.

As touching the stones Lygdinus, found in the mountain Taurus, many are of opinion, that they be well neare as good as the former, for to keep odoriferous ointments: and those for big- nesse and capacity, exceed not bowls and good broad platters: passing faire and white they be: and in times past were wont to be brought only out of Arabia. Moreover, there be two kinds I besides of Marble, well esteemed both, and in great price, notwithstanding in nature they be ve- ry contrary: the one is called Coraliticus, found in Asia; you shal not light vpon any about two cubites long: in whitenesse they come passing neare vnto yvorie, and otherwise also they haue a certaine resemblance vnto it. The other called Alabandicus, after the name of the countrey that yeeldeth it, is contrariwise blacke: howbeit, there is of it to be found growing in Miletus, but not altogether so blacke, for it inclineth or declineth rather to a purple colour. This stone of Miletus will resolute in the fire, and commonly they vse to melt it for drinking cups, in man- ner of glasses. To come now to the Thebaicke marble, marked it is with certain drops here and there of a golden colour: and naturally it is found growing in that part of Africke, which con- fineth vpon the Ægyptians, and lyeth vnder their iurisdiction. A peculiar propertie it hath by K a secret in Nature, respectiue vnto the eies, to serue for to grinde collyries with, that is to say, those powders which are appropriat to the diseases of that part. But about Syene, in the pro- vince of Thebaies, there is a marble (thereupon called Syenites) which sometime they named Pyrrhopæcilos: the kings of Ægypt in times past (as it were vpon a strife and contention, one to exceed another) made of this stone certaine long beames, which they called Obeliskes, and consecrated them vnto the Sun, whom they honoured as a god: And indeed, some resemblance they carry of Sun-beames, when they are made to the forme of Obeliskes, and the very Ægypti- an name implieth so much. The first that euer began to erect these Obeliskes, was *Menes*, king of Ægypt, who held his royall seat and court in Heliopolis, the citie of the Sunne; where hee was admonished in a dreame by a vision, so to doe: and thus much may appeare by the inscrip- L tion of certaine letters engrauen vpon the said Obeliske: for those Characters, figures, and formes that wee doe see incathed in them, be the verie * letters that the Ægyptians vse them- selues. After him, foure other princes also set vp more of these Obeliskes in the aboue named citie: and namely king *Sachis* for his part, foure in number, those carrying in length eight and fortie cubits apiece. And *Ramises* (in whose reigne Troy was woon by the Greekes) created an Obeliske fortie cubits long, in the said citie: but being departed from thence (for that he took plea- sure in another city, where sometimes stood the royal pallace of king *Menevis*) he pitched on end another Obeliske, which carried in length * a hundred foot wanting one, and on euery side foure cubits square.

* *Undecentk*, by another Obeliske, which carried in length a hundred foot wide, and
the Gr. mma- cubits square.

¶ Of three Obelisks. The first of Thebes in high Egypt: the second of great Alexandria in Egypt: and the third which standeth at Rome in the large Cirque or Shew-place.

It is said, that *Ramifies* abouenamed kept 20000 men at work about this Obeliske. The King himselfe in person, when it should be reared on end, fearing lest the engins deuised to raise it, and hold the head thereof betwixt heauen and earth, in the rearing should faile and not be able to beare that monstrous weight; because hee would lay the heauier charge vpon the artificers that were about this enterprife, vpon their vtmost perill, caused his own son to be bound to the top thereof; imagining withall, that the care of the engineers who vndertooke the weighing vp this Obeliske, ouer the young prince, for feare of hurrying him, would induce them also to be the more heedfull to preferue the stone. Certes, this Obelisk was a piece of work so admirable, that when *Cambyses* had woon the city where it stood, by assault, and put all within to fire and sword, and burnt all before him, as far as to the very foundation & vnderpinning of the obelisk, commanded expressely to quench the fire: and so in a kind of reuerence yet vnto a masse and pile of stone, spared it, who had no regard at all of the city besides. Other Obeliskes there be twaine, the one erected by *K. Smarres*, the other by *Erapius*, both without characters, and the same are 48 cubits in height apiece. At Alexandria, *K. Ptolomeus* surnamed *Philadelphus*, let vp another obelisk 80 cubits high, the which king *Nectabis* had caused to be hewed out of the quarry, plaine without any work: but much more difficultie there was in carving it from the quarry, & setting it vpright, than there had bin labor in the hewing: some write, that *Satyrus* a great architect & engineer, conueied it to Alexandria by means of flat bottoms or sleds. But *Calixenus* saith, that one *Phenix* did the deed, who caused a trench to be cut from the riuer Nilus, and to be carried with water as far as to the place where the obelisk lay along: then he deuised two broad barges, prepared & well fraught with smal squares of the same stone, a foot euery way, to the double poise or weight of the Obelisk it selfe in proportion, by reason whereof the vessels hauing their full load, might come vnder the Obelisk iust, as it lay hollow ouerthwart the head of the fosse, with either end resting vpon the banks: which done, he began to discharge the vessels vnderneath, & to throw out the stones wewith they were laden, by meanes whereof, as they were lightened, they rose vp higher and higher to the very Obelisk, and receiued the charge ordained for them. He writes moreover, that there were six other like to it hewed out of the same mountain, & the workmen who cut and squared them had fifty talents for a reward. But the foresaid Obelisk was afterwards by the abouenamed king erected in the hauen of Arsinoë, in testimonie of loue to *Arsinoë* his wife and sister both. But for that it did hurt to the ship-docke there, one *Maximus* a gouernor of Egypt vnder the Romans, remoued it from thence into the market place of the said city, cutting off the top of it, intending to put a filiall thereupon gilded, which afterwards was forelet and forgotten. Two Obeliskes more there were in the hauen of Alexandria neere to the temple of *Caesar*, which were hewed out of the rocke by *Mesphees* king of Egypt, being 42 cubits high. But about all other difficulties, it passeth, what a do there was to transport them by sea to Rome: and verily, the ships prepared of purpose therefore were passing faire and wonderfull to see to. As for one of the said ships which brought the former Obelisk, *Augustus Caesar* the Emperour of famous memorie, had dedicated it vnto the harbor or hauen of Puteoli, there to remain for euer as a miracle to behold, but it fortune to be consumed with fire: the other, wherein *C. Caesar* had transported the second Obeliske into the riuer, after it had bin kept safe for certaine yeares together, to be seen (for that it was the most admirable Carrick that euer had bin known to float vpon the sea) *Claudius Caesar* late Emperour of Rome caused it to be brought to Ostia, where for the safetie and securitie of the hauen he sunk it, and thereupon, as a sure foundation, he raised certaine piles or bastions like turrets or sconces, with the sand of Puteoli: which being done, a new care and trouble there was to bring the Obeliske vp the riuer Tiberis to Rome. Which being effected, it appeared well by that experiment, that vpon the riuer Tiberis a vessel draweth as much water full as Nilus. As touching the said Obelisk which *Augustus Caesar* late Emperour erected in the great shew-place or cirque at Rome, it was first cut out of the rock by

* Whom some
take to be *A-*
masis.

* *Sennefertus* King of Egypt, in the time of whose reign *Pythagoras* sojourned in Egypt; & the same contains 125 foot nine inches, besides the foot or base of the said stone. As for the other, standing in *Mars* field, being 9 foot lower than it, hewed and squared it was by commandement from *Sesoftris* K. of Egypt. In the characters ingrauen in both of them a man may see all the philosophy and religion of the Egyptians, for they contain the interpretation of nature.

CHAP. X.

¶ Of that Obelisk at Rome which standeth in *Mars* field, and serueth for a *Gnomon*.

And as for that Obelisk which standeth in *Mars* field, *Augustus Caesar* deuised a wonderful means that it should serue to mark out the noontide, with the length of day and night, according to the shadowes that the Sun doth yeeld by it: for hee placed vnderneath at the foot of the said Obelisk, according to the bignes and length thereof, a pavement of broad stone, wherein a man might know the sixth houre or mid-day at Rome, when the shadow was equall to the Obelisk; and how by little and little, according to certain rules (which are lines of brasse inlaid within the said stone) the daies do increase or decrease. A thing no doubt worth the knowledge, and an inuention proceeding from a pregnant wit. *Manlius* a renowned Mathematician & Astronomer, put vnto the top of the said Obelisk a gilded ball, in such sort, that all the shadow which it gaue fell vpon the Obeliske, and this cast other shadowes more or lesse, different from the head or top of the Obeliske aforesaid. The reason whereof (they say) was vnderstood from the sundry shadowes that a mans head yeelds. But surely for these thirty yeares past, or thereabout, the vse of this quadrant aforesaid hath not been found true: and what the reason of it should be I know not; whether the course of the Sun in it self be not the same that hertofore, or be altered by some disposition of the heauens, or whether the whole earth be somewhat removed from the true centre in the midst of the world (which I heare say is found to be so in other places) or that it proceed by occasion of the earthquakes which haue shaken the city of Rome, and so haply wrested the *Gnomon* from the old place: or lastly, whether by reason of many inundations of *Tyber*, this huge and weighty Obelisk hath settled and sunk down lower (and yet it is said, the foundation was laid as deep vnder ground as the obelisk it selfe is aboue ground.)

CHAP. XI.

¶ Of the third Obelisk in the *Vaticane*.

There is a third Obelisk at Rome, standing within the cirque or shew-place of the two Emperors *C. Caligula* and *Nero*: and this is the only Obeliske known to haue bin broken in the rearing. This was hewn and erected in Egypt by *Nuncoreus* the son of *Sesoftris*: which *Nuncoreus* caused another to be set vp of 100 cubits high, and consecrated it vnto the Sun, after hee had recovered his sight vpon blindness, being so aduertised by the Oracle, which remains at this day.

CHAP. XII.

¶ Of the Egyptian Pyramides, and of *Sphinx*.

Having thus discoursed of the Obelisks, it were good to say somewhat of the Pyramids also in Egypt; a thing I assure you that bewraileth the foolish vain-glory of the Kings in that country, who abounding with wealth, knew not what to doe with their money, but spent it in such idle and needlesse vanities. And verily most writers doe report, That the principall motives which induced them to build these Pyramides, was partly to keepe the Common people from idleness, partly also because they would not haue much treasure lying by them, lest either their heirs apparant, or other ambitious persons who aspired to be highest, should take occasion thereby to play false and practise treasons. Certes a man may obserue the great follies of those princes herein, That they began many of these Pyramides, and left them vnfinished, as

A may appeare by the tokens remaining thereof. One of them there is within the territory vnder the jurisdiction of *Arsinoe*; two within the prouince that lieth to the gouernment of *Memphis*; not far from the Labyrinth, whereof also I purpose to speake: there are other twaine likewise in the place where sometimes was the lake *Moeris*, which was nothing else but a mighty huge fort intrenched by mans hand in manner of a mote or poodle: but the Egyptians (among many other memorable and wonderfull works wrought by their princes) speake much of these two * *Pyramides*; the mighty spires and steeples whereof (by their saying) do arise out of the very water. As for the other three which are so famous throughout the world (as indeed they are notable marks to be kenned a far off by sailers, and directions for their course) these are scituated in the marches of *Affricke* vpon a craggy and barren mountaine, betwene the city *Memphis* and a certaine Island or diuision of *Nilus* (which as I haue said before) was called *Delta*, within foure miles of *Nilus* and six from *Memphis*, where there standeth a village hard vnto it named *Bufiris*, wherein there be certaine fellows that ordinarily vse to clime vp to the top of them. Ouer against the sayd *Pyramides* there is a monstrous rocke called *Sphinx*, much more admirable than the *Pyramides*, and forsooth the peisants that inhabit the countrey esteemed it no lesse than some diuine power and god of the fields and forrests: within it, the opinion goeth, that the body of *K. Amasis* was intombed; & they would bear vs in hand, that the rock was brought thither, all and whole as it is: but surely it is a medre crag growing naturally out of the ground; howbeit wrought also with mans hand, polished and very smooth and slippery. The compasse of this rocks head (resembling thus a monster) taken about the front, or as it were the forehead, containeth one hundred and two foot, the length or height 143 foot; the height from the belly to the top of the crowne in the head, ariseth to 62 foot. But of all these *Pyramides*, the biggest doth consist of the stone hewed out of the Arabicke quarries: it is said, that in the building of it therewere 366000 men kept at worke twentie yeares together: and all three were inmaking threescore and eightene yeares and foure moneths. The writers who haue made mention of these *Pyramides*, were *Herodotus*, *Euhemerus*, *Darius* the Samian, *Aristagoras*, *Dionysius*, *Artemidorus*, *Alexander Polyhistor*, *Butorides*, *Amisthenes*, *Demetrius*, *Demoteles*, and *Apion*: but (as many as haue written hereof) yet a man cannot know certainly and say, This *Pyramid* was built by this king: a most iust punishment, that the name and authors of so monstrous vanity, should be buried in perpetuall obliuion: but some of these Historiographers haue reported, that there were a thousand and eight hundred talents laid out only for raddish, garlick, and onions, during the building of these *Pyramides*. The largest of them taketh vp eight acres of ground at the foot; foure square it is made, and every face or side thereof equall, containing from angle to angle, eight hundred fourescore and three foot, and at the top five and twenty: the second made likewise foure cornered, is on euery side euen, and comprehendeth from corner to corner seuen hundred thirty and seuen foot: the third is lesse than the former two, but far more beautifull to behold, built of *Ethiopian* stones; it carrieth at the foot in each face betwene foure angles, three hundred threescore and three foot. And yet of all these huge monuments, there remaine no tokens of any houses built, no apparence of frames and engins requisite for such monstrous buildings; a man shall find all about them far and neare, faire sand and small red grauell, much like vnto *Lentill* seed, such as is to be found in the most part of *Affricke*. A man seeing all so cleane and euen, would wonder at them how they came thither; but the greatest difficultie mouing question and maruell is this, What meanes were vsed to carry so high as well such mightie masses of hewen squared stone, as the filling, rubbith, and mortar that went thereto? for some are of opinion, that there were deuised mounts of salt and nitre heaped vp together higher and higher as the worke arose and was brought vp; which being finished, were demolished, and so washed away by the inundation of the riuer *Nilus*: others thinke, that there were bridges reared with bricks made of clay, which after the worke was brought to an end, were distributed abroad and imploied in building of priuat houses; for they hold, that *Nilus* could neuer reach thither, lying as it doth so low vnder them when it is at the highest, for to wash away the heaps and mounts aboue-said. Within the greatest *Pyramid* there is a pit 86 cubits deep, and thither (some thinke) the riuer was let in. As touching the height of these *Pyramides* & such like, how the measure should be taken, *Thales Milesius* deuised the meanes; namely, by taking just length of a shadow when it is meet and euen with the bodie that casteth it. These were the wonderfull *Pyramides* of Egypt, whereof the world speaketh so much. But, to conclude this argument,

D d d

That

* *Herodotus* saith, they were 250 foot high aboue the water, and as many deepe vnder.

That no man should need to maruell any more of these huge workes that kings haue built, let G him know thus much, that one of them, the least (I must needs say) but the fairest and most commended for workmanship, was built at the cost and charges of one *Rhodope*, a very strumpet: this *Rhodope* was a bondslawe together with *Asopos*, a Philosopher in his kind, and writer of morall fables, with whom she serued vnder one master in the same house: the greater wonder it is therefore and more miraculous than all I haue said before, that euer she should bee able to get such wealth by playing the harlot. Ouer and aboue the Pyramides abovesaid, a great name there is of a tower built by one of the kings of Egypt within the Island Pharos, and it keepeth & commands the hauen of Alexandria, which tower (they say) cost 800 talents the building. And here because I would omit nothing worth the writing, I cannot but note the singular magnanimity of *K. Ptolome*, who permitted *Softratus* of Gnidos (the master workman and architect) to graue H his owne name in this building. The vse of this watch-tower, is to shew light as a lanthorne, and giue direction in the night season to ships, for to enter the hauen, & where they shall auoid bars and shelues, like to which there be many beacons burning to the same purpose, and namely, at Puteoli and Rauenna. This is the danger onely, lest when many lights in this lanterne meet together, they should be taken for a star in the skie, for that a far off such lights appeare to sailers in manner of a star. This engineer or master workman before said, was the first man that is reported to haue made the pendant gallery and walking place at Gnidos.

CHAP. XIII.

Of the Labyrinths in Egypt, Lemnos, and Italy.

Since wee haue finished our Obelisks and Pyramides, let vs enter also into the Labyrinths; which we may truly say, are the most monstrous workes that euer were deuised by the head of man: neither are they incredible & fabulous, as peradventure it may be supposed; for one of them remaineth to be seen at this day within the jurisdiction of Heracleopolis, the first that euer was made, to wit, three thousand and six hundred yeares ago, by a king named *Petesuccas*, or as some thinke *Tithoes*: and yet *Herodotus* saith, it was the whole worke of many KK. one after another, and that *Psammethichus* was the last that put his hand to it and made an end thereof: the reason that moued these princes to make this Labyrinth, is not resolued by writers, but diuerse causes are by them alledged: *Demoteles* saith, that this Labyrinth was the roiall pallace and seat K of king *Motherudes*: *Lyctas* affirmeth it to be the sepulchre of *K. Meris*: the greater part are of opinion, that it was an ædifice dedicated expressly and consecrated vnto the Sun, which in my conceit commeth nearest to the truth. Certes, there is no doubt made that *Dædalus* tooke from hence the pattern and platforme of his Labyrinth which he made in Crete; but surely he expressed not aboue the hundreth part thereof, chusing onely that corner of the Labyrinth which containeth a number of waies and passages, meeting and incountring one another, winding and turning in and out euery way, after so intricat manner and so inexplicable, that when a man is once in, he cannot possibly get out againe: neither must wee thinke that these turnings and returnings were after the manner of mazes which are drawne vpon the pauement and plain floore of a field, such as we commonly see serue to make sport and pastime among boies, that is to say, L which within a little compasse and round border comprehend many miles; but here were many dores contriued, which might trouble and confound the memorie, for seeing such variety of entrie, allies, and waies, some crossed & encountred, others flanked on either hand, a man wandred still and knew not whether he went forward or backward, nor in truth where he was. And this Labyrinth in Crete is counted the second to that of Egypt: the third is in the Isle Lemnos: the fourth in Italy: made they were all of polished stone, and besides vaulted ouer head with arches. As for the Labyrinth in Egypt, the entrie thereof (whereat I much maruell) was made with columns of stone, and all the rest stuffed so substantially and after such a wonderfull manner couched and laid by art of Masonrie, that impossible it was they should in many hundred yeres be disjointed and dissolued, notwithstanding that the inhabitants of Heracleopolis did what M they could to the contrary; who for a spight that they bare vnto the whole worke, annoied and impeached it wonderfully. To describe the site and plot thereof, to vnfold the architecture of the whole, and to rehearse euery particular therof, it is not possible; for diuided the building is into sixteene regions or quarters, according to the sixteene seuerall governments in Egypt (which they

A they call *Nomos*) and within the same are contained certain vast & stately pallaces which bear the names of the said jurisdictions, and be answerable to them: besides, within the same precinct are the temples of all the Egyptian gods: ouer and aboue, fifteen litle chappels or shrines, euerie one enclosing a *Nemesis*, to which goddesse they be all dedicated: to say nothing of many Pyramides forty eils in height apiece, and euery of them hauing six walls at the foot, in such sort, that before a man can come to the Labyrinth indeed which is so intricat & inexplicable, & wherein (as I said before) he shall be sure to lose himselfe, he may make account to be weary & tyred out: for yet he is to passe ouer certain losses, galleries, & garrets, all of them so high that he must clime staires of ninety steps apiece ere he can land at them; within the which, a number of columns and statues there be, all of porphyrit or red marble, a world of images and statues B representing as well gods as men, besides an infinit sort of other pieces pourtraied in monstrous and ougly shapes, and there erected. What should I speake of other rooms and lodgings which are framed and situat in such manner, that no sooner are the dores and gates opened which lead vnto them, but a man shall heare fearful cracks of terrible thunder: furthermore, the passages from place to place are for the most part so conueighed, that they be as dark as pitch, so as there is no going through them without fire light: and still be we short of the Labyrinth, for without the main wall therof, there be two other mighty vpright wals or wings, such as in building they call *Pteris*; & when you are passed them, you meet with more shrouds vnder the ground, in manner of caues and countermines vaulted ouer head, and as dark as dungeons. Moreover, it is said, that about 600 yeares before the time of *K. Alexander* the Great, one *Circamnos* (an eunuch or C groomer of *K. Nestabis* chamber) made some small reparations here about this Labyrinth, & neuer any but hee would go about such a piece of work. It is reported also, that while the main arches and vaults were in rearing (and those were made all of foure square ashler stone) the place shone all about and gaue light with the beams and placher made of the Egyptian *Acacia* sodden in oile. And thus much may serue sufficiently for the Labyrinths of Egypt and Candy.

The Labyrinth in Lemnos was much like to them, only in this respect more admirable, for that it had a hundred and forty columns of marble more than the other, all wrought round by turners craft, but with such dexterity, that a very child was able to weld the wheele that turned them, the pins and poles wherby they hung were so artificially poysed. The master deuisers and architects of this Labyrinth, were *Zmilus*, *Rholus*, and a third vnto them, one *Theodorus* who was borne in the same Island. Of this, there remaine some reliques to be seene at this day, whereas a man shall not find one smal remnant either of the Italian or Candian Labyrinths: for meet it is that I should write somewhat also of our Labyrinth here in Italy, which *Porfena* K. of Tuscane caused to be made for his own sepulchre, and the rather, because you may know that forein KK. were not so vain in expences, but our princes in Italy surpassed them in vanity: but for that there go so many tales and fables of it which are incredible, I thinke it good in the description therof to vse the very words of my author *M. Varro*: King *Porfena* (quoth he) was interred vnder the citie Clusinum in Tuscane, in which very place he left a sumptuous monument or tombe built all of square stone, thirty foot it carried in bredth on euery side, and fifty in height; within the base or foot whereof (which likewise was foure square) he made a Labyrinth, so intricat, that if a man were entred into it without a bottom or clue of thread in his hand, and leaving the one end therof fastned to the entry or dore, it was impossible that euer he should find the way out again. E Vpon this quadrant there stood fise Pyramides or steeples, foure at the foure corners, and one in the mids, which at the foot or foundation caried 75 foot euery way in bredth, & were brought vp to the height of 150: these grew sharpe spired toward the top, but in the very head so contriued, that they met all in one great roundle of brasle which wrought from one to the other, & couered them all in manner of a cap, and the same rising vp in the mids with a cress most stately; from this couer there hung round about at little chains, a number of bells or cimbals, which being shaken with the wind, made a jangling noise that mought be heard a great way off, much like to that ring of bells which was deuised in times past ouer the temple of *Iupiter* at Dodona: F & yet are we not come to an end of this building mounted aloft in the aire, for this couer ouer head serued but for a foundation of 4 other Pyramides, and euery one of them arose a hundred foot high aboue the other worke, vpon the tops whereof there was yet one terrace more to sustaine fise Pyramides, and those shot vp to such a monstrous height, that *Varro* was ashamed to report it: but if we may giue credit to the tales that go currant in Tuscane, it was equal to the

* Which was
250 foot: so
that the whole
was 500 foot.

whole * building vnderneath. O the outrageous madnesse of a foolish prince, seeking thus in a vaineglorious mind to be immortalized by a superfluous expence which could bring no good at all to any creature, but contrariwise weakened the state of the kingdome! And when all was done, the artificer that enterprised and finished the worke, went away with the greater part of the praise and glory.

CHAP. XIII.

¶ Of a garden made vpon Terraces. Of a citie standing all vpon vaults and arches from the ground. And of the temple of Diana in Ephesus.

WE reade moreover of gardens made in the aire; nay it is recorded, that a whole city (and namely Thebes in Egypt) was built so hollow, that the Egyptian KK. were wont to lead whole armies of men vnder the houses of the said city, and in such sort as none of the inhabitants could beware thereof, yea and sodainly appeare from vnder the ground: a marvellous matter I assure you, but much more wonderful in case the river Nilus also ran thorough the mids of the said towne. But surely of this opinion I am, that if this be true, *Homer* no doubt would haue written of it, considering he hath spoken so much in the praise and commendation of this city, and especially of the * hundred gates that it had. But to speake of a stately and magnificent work indeed, the temple of *Diana* in Ephesus is admirable, which at the common charges of all the princes in Asia was * two hundred and twenty yeres a building. First and foremost, they chose a marish ground to set it vpon, because it might not be subiect to the danger of earthquakes, or feare the chinkes and opening of the ground: againe, to the end that so mighty and huge building of stone worke should stand vpon a sure and firme foundation (notwithstanding the nature of the soile giuen to be slipperie and vnsteadfast) they laid the first couch and course of the ground worke with charcole well rammed in manner of a pavement, & vpon it a bed of wool-packs: this temple carried in length throughout, four hundred twenty and five foot, in breadth two hundred and twenty: in it were a hundred and seuen and twenty pillars, made by so many KK. and every one of them threescore foot high, of which, six and thirtie were curiously wrought and engrauen, whereof one was the handiworke of *Scopas*: *Cherisiphron* the famous architect was the chiefe deuiser or master of the workes, and who undertooke the * rearing thereof: the greatest wonder belonging thereto was this, How those huge chapters of pillars, together with their frizes and architraues, being brought vp and raised so high, should be fitted to the sockets of their shafts: but as it is said, he compassed this enterprize and brought it to effect, by the meanes of certaine bags or sacks filled with sand; for of these he made a soft bed as it were raised above the heads of the pillars, vpon which bed rested the chapters, and euer as he emptied the nethermost, the foresaid chapters settled downward by little and little, and so at his pleasure he might place them where they should stand: but the greatest difficultie in this kind of worke, was about the very frontispiece and maine litle-tree which lay ouer the jambes or cheekes of the great dore of the said temple; for so huge and mighty it was, that hee could not weld it to lay & bestow the same as it ought, for when he had done what he could, it was not to his mind, nor couched and settled in the right place: whereupon the workman *Cherisiphron* was much perplexed in his mind, and so wearie of his life, that he purposed to make himself away: but as he lay in bed in the night season, and fell asleep all wearie vpon these dumptish and desperat cogitations, the goddesse *Diana* (in whose honor this temple was framed, and now at the point to be reared) appeared sensibly vnto him in person, willing him to be of good cheare and resolute to liue still, assuring him that she herself had laid the said stone of the frontispice, and couched it accordingly: which appeared true indeed the morrow morning, for it seemed that the very weight thereof had caused it to settle iust into the place, and made a joint as *Cherisiphron* would haue wished it. As touching all the other singularities belonging to this temple, and namely the gorgeous ornament that set it out, they would require many volumes to discipher and particularize vpon them; and when all is done, little or nothing pertinent they are to the illustration of Natures worke, which is the principall marke I aime at.

CHAP.

CHAP. XV.

¶ Of the proud temple in Cyzicum. The fugitive stone. The eccho which resoundeth seuen times to one cry. Of a great building without pin or naile of yron. The sumptuous and admirable adifices in Rome.

HERE is at this day a temple standing at Cyzicum, wherein the mason had bestowed threds of gold in all the joints vnder euery stone throughout, and those were all faire polished: within this temple, prince *Cyzicus* (who caused it to be built) minded to dedicat the image of *Iupiter* in yvorie, and of *Apollo* in marble, setting a crowne vpon his head. Certes, these joints thus entelaced with most fine and dainty threads, gaue a wonderfull grace and beautie to the whole Church, by sending and breathing (as it were) from them certaine raies, which by reuerberation cause all the images therein to haue a glittering lustre: in such sort, that ouer and above the deuise and wittie inuention of the workman, the very matter also (although it be close couched and hidden betwene each stone) commendeth the price and riches of the worke.

Within the said town there is a stone called the Fugitive and Runaway: The braue knights of Greece called Argonauts, who accompanied prince *Iason* in his voyage for the golden fleece, after they had vsed it for an anchor, left it there: but for that this stonewas ready many times to run away and be gone out of their Prytaneum (for so they call their publick hall) they soudred it fast with lead. In the same city neer vnto that gate which is called Thracia, there stand seuen turrets, which doe multiply a voice, and send backe many againe for one: this miraculous rebounding of the voice, the Greekes haue a pretty name for, and call it Echo. True it is, that this reuerberation and redoubling of the voice, proceedeth otherwhiles from the nature of the place, and most of all in vallies lying betwene hills; but at Cyzicum it commeth by fortune, and no such reason can be giuen thereof. At Olympia the like is wrought by art, for there is a gallerie there made of purpose, which after a wonderfull manner deliuereth the same voice which it receiuet, seuen times backe, whereupon they call it Heptaphonon. Moreover, in Cyzicum there is a faire and large building, which (because they keep courts and sit in counsell there) is named Buleuterion: the same is built in such sort, as there goeth not one pin or naile to all the carpentrie thereof: and the stories are so laid, that a man may take away the beams and rifters without any prop or shoure to support them, yea and bestow them againe fast enough without laces to bind them. After which manner, the wooden bridge at Rome was so framed ouer the river Tyberis; and a matter of religion and conscience was made thereof, to maintaine it so, in remembrance of the difficultie in taking it a pieces and breaking it downe, at what time as *Horatius Codes* made the place good against the power of *K. Porfena*.

And now since the coherence of matters hath brought me to Rome, me thinks I should not doe amisse to proceed vnto the miraculous buildings of this our city, to shew the docilitie of our people, and what prooffe there is of their progresse in all things, during the space of nine hundred yeres; that it may appeare how not only in magnanimitie and prowess they haue conquered the world, but in magnificence also of stately and sumptuous buildings surmounted all Nations of the earth: and as a man shall find this singularity and excellencie of theirs in the particular suruey of euery one of their stately and wonderfull adifices as they haue bin reared from time to time, so if he put them all together and take a generall view of them at once, he shall conceiue no otherwise of their greatnesse, than of another world assembled (as it were) to make shew in one place: for if I should reckon among great workes (as needs I must) the grand cirque or shew-place built by *Cesar* Dictator, which took vp of ground three stadia or furlongs in length, and one in breadth, containing also in adifices and rooms foure acres of iugera, wherein were bestowed to sit at ease and behold the sight with pleasure, two hundred and threescore thousand persons: what tearme shall I giue, but of Stately and magnificent buildings, either vnto the royall pallace of *Paulus Amilius*, enriched with goodly pillars of Sinadian marble out of Phrygia, most admirable to behold; or to the sumptuous Forum of *Augustus Caesar* late Emperour, or yet the temple of Peace built by the Emperour *Vespasianus Augustus*, now liuing, the goodliest and fairest buildings that euer were: what should I speake of the temple * *Pantheon*, made by *Agrippa* to the honor of *Iupiter Reuenger*? as also how before this time, *Valerius* of Ostia the architector enginer, made a rouse ouer the great Theatre at Rome against the time that

D d d 3

Like

* Ovidy, *Metamorph.*
lib. 11.

* In the fourth
chap. of the 16
booke, he saith
400.

* After the
frame was
made.

* The round
church of *Ne-
ber* dam, now
at Rome.

time) was deuised for to contain no greater number than fortie thousand seats at large. As touching the other furniture of this Theatre of *Scaurus* in rich hangings, which were cloth of gold; painted tables, the most exquisite that could be found; plaies apparrell and other stufie meet for to adorne the stage, there was such abundance thereof, that there being caried back to his house of pleasure at Tusculum the surplussage therof, ouer and aboue the daintiest part, wherof he had daily vse at Rome, his seruants and slaues there, vpon indignation for this wast and monstrous superfluitie of their master, set the said country house on fire, and burnt as much as came to a hundred millions of sesterces. Certes, when I consider and behold the monstrous humours of these prodigall spirits, my mind is drawn away stil from the progresse of mine intended iourney, and forced I am to digresse out of my way, and to annex vnto this vanity of *Scaurus* as great follie of another, not in masonry and marble, but in carpentry and timber: and *C. Curio* it was, he who in the ciuile warres betwene *Cesar* and *Pompey*, lost his life in the quarrell of *Cesar*. This gentleman, desirous to shew pleasure vnto the people of Rome at the funerall of his father deceased, as the manner then was, and seeing that he could not outgo *Scaurus* in rich and sumptuous furniture (for where should he haue had such a father in law again as *Sylla*? Where could he haue found the like mother to dame *Metella*, who had her share in all forfeitures and confiscations of the goods of outlawed citizens; and where was it possible for him to meet with such another father as *M. Scaurus*, the principall person of the whole city so long together, who parted stakes with *Marius* in pilling and polling of the prouinces, and was the very receptacle & gulfe which receiued and swallowed all their spoiles and pillage?) and *Scaurus* himselfe verily, if he might haue had all the goods in the world, could not haue done as he did before, nor make the like Theatre, againe, by reason that his house at Tusculum was burnt, where the costly and rich furniture, the goodliest rare ornaments which he had gotten together from all parts of the world were consumed to ashes: by which fire yet this good hee got and prerogative aboue all other, That no man euer after him was able to match that sumptuositie of his Theatre. This gentleman (I say) *Curio*, al things considered, was put to his shifts, & deuised to surpass *Scaurus* in wit, since hee could not come neere him in wealth. And what might his inuention be? Certes, it is worth the knowledge, if there were no more but this, that we may haue ioy of our own conceits and fashions, and call our selues worthily, as our manner is, **Majores*, that is to say, superiour euery way to all others. To come then to *C. Curio*, & his cunning deuise, he caused two Theatres to be framed of timber, and those exceeding big, howbeit so, as they might be turned about as a man would haue them, approach neere one to the other, or be removed farther asunder as one would desire, & all by the means of one hooke apiece that they hung by, which bare the weight of the whole frame, the counterpoise was so euery way, & all the whole therefore sure and firme. Now he ordered the matter thus, that to behold the severall stage plaies and shews in the forenoone before dinner, they shall be set back to back, to the end that the stages should not trouble one another: and when the people had taken their pleasure that way, he turned the Theatres about in a trice against the afternoone, that they affronted one another: and toward the latter end of the day, and namely, when the fencers and sword-plaies were to come in place, he brought both the Theatres nearer together (and yet euery man sat stil & kept his place, according to his rank and order) in so much, as by the meeting of the horns and corners of them both together in compass, he made a faire round Amphitheatre of it: and there in the midst between, he exhibited indeed vnto them all jointly, a sight and spectacle of sword-fencers fighting at sharpe, whom he had hired for that purpose: but in truth, a man may say more truly, that he caried the whole people of Rome round about at his pleasure, bound sure enough for stirring or remoouing. Now let vs come to the point, and consider a little better of this thing. What should a man wonder at most therein, the deuiser or the deuise it selfe? The workman of this fabrick, or the master that set him on worke? Whether of the twaine is more admirable, either the venturous head of him that deuised it, or the bold heart of him that undertook it: to command such a thing to be done, or to obey and yeeld to goe in hand with it? But when we haue said all that we can, the follie of the blind & bold people of Rome went beyond all, who trusted such a ticklish frame, & durst sit there, in a seat so moueable. Lo where a man might haue seen the body of that people, which is commander and ruler of the whole earth, the conquerour of the world, the disposer of kingdoms and realmes at their pleasure, the deuiser of countries and nations at their wil, the giuer of lawes to forrein states, the vicegerent of the immortall gods vnder heauen, and representing their

* The Romans delighted much in this word *Majores*, as may appear by their *Mores Maiorum*, &c.

A their image vnto all mankind: hanging in the air within a frame at the mercy of one only hook, rejoicing and ready to clap hands at their owne danger. What a cheape market of mens liues was here toward! What was the losse at Cannæ to this hazard, that they should complaine so much as they do of Cannæ? How neere vnto a mischiefe were they, which might haue happened hereby in the turning of a hand? Certes, when there is newes come of a city swallowed vp by a wide chinke and opening of the earth, all men generally in a publicke commiseration doe grieue thereat, and there is not one but his heart doth earne, and yet, behold the vniuersall state and people of Rome, as if they were put into a couple of barks, supported between heauen and earth, and sitting at the deuotion only of two pins or hookes. And what spectacle do they behold, a number of fencers trying it out with vnrebat swords? nay ywis, but euen themselves rather entered into a most desperat fight, and at the point to break their necks euery mothers son, if the scaffold failed neuer to little, & the frame went out of joint: Now surely by this prooff, *Curio* had gotten a good hand ouer the people of Rome, & no Tribunes of the Commons with all their Orations could do more: from that time forward he might make account to be so gracious, as to lead all the tribes after him in any suits, and haue them hanging in the air at his pleasure. What a mighty man with them might he be (thinke you) preaching vnto them from the *Rostre*? What would not he dare to propose, hauing audience in that publick place before them who could perswade them thus, as he did, to sit vpon such turning and ticklish Theatres. And in truth, if we wil consider this pageant vpright, we must needs confesse & may be bold to say, that *Curio* had all the people of Rome to perform a braue skirmish and combat indeed to honor and C solemnize the funeralls of his father before his tombe. And yet here is not all: for he was at his change and variety of magnificent shewes: and when he perceiued once that the hookes of his frames were stretched ynough and began to be out of order, hee kept them still close together round in forme of a perfecte Amphitheatre, and the very last day of his funeral solemnities, vpon two stages iust in the midst, he represented wrestlers and other champions to performe their deuoire, and then all on a suddaine causing the said stages to be disjointed and hailed one from another a contrary way, he brought forth the same day the fencers and sword players who had wooen the prize, and with that shew made an end of all. See what *Curio* was able to do! And yet was he neither king nor Kesar: he was not so much as a generall or commander of an army; nay, he was not named for any great rich man: as whose principall state depended vpon this, That D when the great men of the city, *Cesar* and *Pompey*, were skuffling together by the cares, he knew well how to fish in a troubled water. But to leaue *Curio* & such as he was, with their foolish and idle expences, let vs come to the miraculous workes that *Q. Marcius Rex* performed, and that to some good purpose: which if we consider & esteeme aright, passe all the other before rehearsed. This gentleman when he was Pretor, hauing commandement & commission both from the Senat, to repaire the conduits to the waters of Appia, Anio, and Tepula, which serued Rome, did not that only, but also conueighed a new water into the city, which of his owne name he called Martia: and notwithstanding that he was to pierce certaine mountains, & make trenches quite through them vnder the ground, for to bring the water thither from the Spring, yet he performed all within the time of his Pretourship. As for *Agrippa*, while he was *Ædile*, besides the conduits from all other fountaines which he scoured, repaired, and caused to keep their current: E he brought another of his own to the city, which is known by the name of Virgo: he made seuen hundred pooles for receipt of waters: a hundred and fife conduits, yeelding water at rockes and spoutes, besides a hundred and thirtie conduit heads in the fields, and the most of them built strongly with vaults, and adorned right stately. Moreover, vpon these workes of his he crested statues & images, to the number of three hundred, partly of brasse and partly of marble, besides foure hundred pillars of marble, and all within the compass of one yeare. And if wee may beleue his owne speech, discoursing of the acts done by him during his *Ædileship*, hee addeth moreouer and saith, That the plaies and games which he exhibited that yeare, for to doe the people pleasure, continued three score daies together, wanting one: that he caused a hundred three score and ten baines or stoues to be made within the city, wherein people of all sorts and degrees might bathe and sweat of free cost, and not pay a denier: the which remain at this day, and haue brought with them an infinit number of others. But of all the conduits that euer were before this time, that which was last begun by *C. Caligula Cesar*, and finished by *Claudius Cesar* his successeur, passeth for sumptuousnesse: for they commanded the waters from the two fountains,

* *Sestertium* ter
millies, how
it *Budens* reads
quingenties,
quingenties,
quingenties,
and that is not
much more
than the six
part: & yet by
his computati-
on ariseth to a
million three
hundred eigh-
tie five thou-
sand and five
hundred French
crownes,
* *Nero*.

tains, Curtius & Caruleus, whose heads were 40 miles off: and these they carried before them with such a force and to such an height, that they mounted vp to the top of the highest hills of Rome, and serued them that dwelt therupon. This work cost *three hundred millions of sesterces. Certes, if a man would well and truly consider the abundance of water that is brought thereby, and how many places it serues, as well publicke as priuate, in baines, stewes, and fishpooles, for kitchins and other houses of office, for pipes and little riuers to water gardens, as well about the citie, as in manors and houses of pleasure in the fields neere the city, ouer and besides, what a mighty way these waters be brought; the number of arches that of necessitie must be built of purpose for to conueigh them; the mountaines that be pierced and mined through to giue way together, with the vallies that are raised and made euen and leuell with other ground: he will confesse, that there was neuer any incredible and inenarrable sum of money, besides the infinit toil and labour of a multitude of workemen and labourers so many yeres together, as well to force the water which came vpon the pioners from vnder the ground with deuise of engines and windles vp to the top of the hill, whereas it stood vpon meere earth; as to cut and hew through hard reggs and rockes of flint: and all this by candlelight within the earth, in such sort that vnlesse a man had bin there to haue seene the manner of it, vnpossible it is either to conceiue in mind or expresse with tongue the difficultie of the enterprise. As for the peere and haue at Ostia (because I would make an end once of these matters) I will not say a word thereof, nor of the waies and passages cut through the mountaines, ne yet of the mighty piles and damns to exclude the Tuscan sea, for the Lucrine lake, with so many rampiers and bridges made of such infinit cost. Howbeit, among many other miraculous things in Ægypt, one thing more I will relate out of mine author *Papirius Fabianus*, a great learned Naturalist, namely, That marble doth grow daily in the quarries: and in very truth, the farmers of those quarries, and such as ordinarily do labour and dig out stone, do affirme no lesse; who vpon their experience doe assure vs, that looke what holes and caues be made in those rockes and mountaines, the same will gather againe and fill vp in time: which if it be true, good hope there is, that so long as marbles do liue, excesse in building will neuer die.

CHAP. XVI.

¶ *The sundry kinds of the Load-stone, and the medicines thereto depending.*

NOW that I am to passe from marbles to the singular & admirable natures of other stones; who doubts but the Magnet or Loadstone will present it self in the first place: for is there any thing more wonderfull, and wherein Nature hath more travelled to shew her power, than in it? True it is, that to rockes and stones she had giuen *voice (as I haue already shewed) whereby they are able to answer a man, nay, they are ready to gainesay and multiply words vpon him. But is that all? what is there to our seeming more dull than the stiffe and hard stone? And yet behold, Nature hath bestowed vpon it, fence, yea & hands also, with the vse thereof. What can we deuise more stubborne and rebellious in the own kind, than the hard yron, yet it yeelds, and will abide to be ordered: for loe, it is willing to be drawne by the load stone: a marvellous matter that this mettall, which tameth and conquereth all things els, should run toward I wot not what, and the nearer that it approacheth, standeth still as if it were arrested, and suffereth it selfe to be held therewith, nay, it claspeth and clungeth to it, and will not away. And hereupon it is, that some call the load-stone * *Sideritis*, others *Heracleos*. As for the name *Magnes* that it hath, it tooke it (as *Nicander* saith) of the first inuencor and deniser thereof, who found it (by his saying) vpon the mountaine *Ida* (for now it is to be had in all other countries, like as in *Spaine* also;) and (by report) a neat-heard he was: who, as he kept his beasts vpon the foresaid mountaine, might perceiue as he went vp and downe, both the hob-nailes which were in his shooes, and also the yron picke or graine of his staffe, to sticke vnto the said stone. Moreover, *Sotacus* ascribeth and setteth downe fise sundry kinds of the load-stone: the first which commeth out of Æthiopia; the second, from that *Magnesia* which confineth vpon *Macedonie*, and

* *Ides* in
Greek is yron.

A namely, on the right hand, as you go from thence toward the lake *Bœbeis*, the third is found in *Echiium*, a town of *Bœotia*; the fourth about *Alexandria*, in the region of *Troas*; and the fift in *Magnesia*, a country in *Asia Minor*. The principall difference obserued in these stones, consists in the sex (for some be male, others female;): the next lieth in the colour. As for those which are brought out of *Macedonie* and *Magnesia*, they be partly red, and partly blacke. The *Bœotian* loadstone standeth more vpon red than black: contrariwise, that of *Troas* is black, and of the female sex, in which regard it is not of that vertue that others be. But the worst of all comes from *Magnesia* in *Natolia*, and the same is white; neither doth it draw yron as the rest, but resembles the pumish stone. In sum, this is found by experience, That the blower any of these loadstones be, the better they are and more powerful. And the *Ethiopian* is simply the best, in so much, as it is worth the weight in silver: found it is in *Zimiri*, for so they call the sandy region of *Ethiopia*, which country yeeldeth also the sanguine loadstone, called *Hæmatites*, which both in color resembleth blood, and also if it be bruised, yeeldeth a bloody humour, yea and otherwhiles that which is like to saffron. As for the property of drawing yron, this blood-stone *Hæmatites* is nothing like to the loadstone indeed. But if you would know and try the true *Ethiopian* *Magnet*, it is of power to draw to it any of the other sorts of loadstones. This is a generall vertue in them all, more or lesse, according to that portion of strength which Nature hath indued them withal, That they are very good to put into those medicines which are prepared for the eies: but principally they do repress the vehement flux of humors that fall into them: beeing calcined and beaten into powder, they do heale any burne or scald. To conclude, there is another mountaine in the same *Ethiopia*, and not far from the said *Zimiri*, which breedeth the stone *Theamedes* that will abide no yron, but rejecteth and driueth the same from it. But of both these natures, as well the one as the other, I haue written oftentimes already.

CHAP. XVII.

¶ *Of certaine stones which will quickly consume the bodies that be laid therein. Of others againe that preserue them a long time. Of the stone called Assus, and the medicinable properties thereof.*

W Ithin the Isle *Scyros* there is a stone (by report) which so long as it is whole & found will swim and float vpon the water; breake the same into small pieces, it will sink. Near vnto *Assos*, a city in *Troas*, there is found in the quarries a certaine stone called *Sarcophagus*, which runneth in a direct veine, and is apt to be clouen and so cut out of the rocke by flakes. The reason of that name is this, because that within the space of forty daies it is knowne for certaine to consume the bodies of the dead which are bestowed therein, skin, flesh, and bone, all saue the teeth. And *Mutianus* mine author affirmeth, that look what mirroirs, *currycombs, cloth, or shooes soeuer be cast into the said coffins with the dead, they will turn all into stone. Of this nature there be stones in *Lycia*, and in the East countries, which if they be hung or applied to liuing bodies also, will eat and fret them away. Yet the stone called *Chernites*, resembling *Yvorie*, is more mild and gentle: for keepe it will and preserue dead bodies without consuming them at all, & in a sepulchre or coffin of this stone, the body of *K. Darius* (they say) was bestowed. Touching the stone called *Porus*, like it is vnto the marble of *Paros* for white colour and hardness, howbeit nothing so weighty. *Theophrastus* writeth, That there be found in Ægypt certain cleare and transparent stones, and those he saith bee like vnto the *Serpentine* marble *Ophites*: haply such there were in his time, for now are there none of them to be found; but as they are gone, so there be new come in their place. As for the stone *Assus*, in tast it is saltish, but singular good to allay the paine of the gout, if the feet onely be put into a trough or hollow vessel made of that stone. Moreover, all griefes, pains, and infirmities of the legs, will be healed in such quarries: whereas in all mettall mines, the legs take harm. Furthermore, this stone yeeldeth in the top of the quarrie a certain light substance, apt to be reduced into a soft powder, which they call the floure of the said stone, and is as effectually as the stone it selfe in some cases. Like it is for all the world to a red pumish stone. If it be mixt with *Cyprian* brasse or copper, it cures the accidents of womens breasts; but being incorporat with pitch or rosin, it discusseth the kings euill, and any biles or bitches. The same reduced into a iohoch to be licked down leasurely, serueth well in a phty.

* *Strigiles* He
meaneth those
that be used in
baines to fetch
off the sweat
and filthinesse
of our bodies.

phthysicke and tempered with hony, it healeth vp old vlcers and skinneth them cleane: and yet this property it hath, to eat away any excrescence of proud flesh. The same is good for the bitings of wild and venomous beasts. Such morimalls or sores as scorne ordinary cures & be full of suppuration, it drieth. Finally, there is an excellent cataplasme made with it and beane flour put together, for the gout.

CHAP. XVIII.

¶ Of *Tvorie* minerall, digged out of the ground. Of stones that are of a bonie nature, and such, as their veines represent *Date* trees within: and of other kinds of stone.

Theophrastus and *Mutianus* aboue named, are verily perswaded, That there be some stones which ingender others. And as for *Theophrastus*, he affirmeth, That there is a minerall *Yvo*, rie found within the ground, as well black as white: also, that there be bones growing within the earth, yea, and stones of a bony substance. About *Munda*, a city in Spaine, where *Caesar* did stator defeated *Pompey*, there are found stones resembling *Date* trees, breake them as often as you will. There be also certaine black stones, whereof there is as great account made as of marbles: like as the stone also of the cape *Tanara*. And such black stones (*Varro* saith) be more firm and hard which come out of *Africa*, than those of *Italy*; and contrariwise, that there be white stones harder to be wrought by the Turner, than the marble of *Paros*: the said *Varro* affirmeth, that the flint of *Luna* may be flit with the saw, whereas that of *Tusculum* will cracke and flie in pieces in the fire; also, That the darke and duskish *Sabine* stone, if it be sprinkled with oil, will burne of a light fire: moreover, That about *Volfinj* there haue been found quernes or hand mill-stones framed ready for worke, yea, and some we haue seen to turne about and grind of their owne accord; but such haue bin taken for prodigies. And since I am fallen vpon the mention of such mill-stones, there is not a country in the world, affoordeth better of that kinde than *Italy* doth: neither do such grow in the rocke, and are hewed forth, but be entire stones of themselves apart: and yet in some prouinces there are none of them to be had at all. And in this kind there be of a more free and softer grit, which being smoothed and polished with a slicke stone, may seem a far off as if they were *Serpentine* marble; and verily, there is not a stone will indure better, or lie longer in building. For thus you must thinke, that all stones be not of one, and the same nature to abide rain and weather; heat of Summer and cold in Winter alike; for some be more durable than others, like as we find in sundry kinds of timber. Finally, there be stones also, which may not away with the raies of the Moon: which in continuance of time wil gather rust, yea, and with oile will change their white colour.

CHAP. XIX.

¶ Of *Curalium* or *Pyrites*, i. the *Marcasin*: and the medicinable vertues thereof. Of the stone *Ostracites*, and the *Amiant*: together with the properties seruing in *Physicke*: also, of the stone *Melittites*, and the vertues thereof. Likewise of the *Geat*, and the effects that it worketh in *Physick*, of *Sponges*. Lastly, of the *Phrygian* stone, and the Nature of it.

The mill-stone *Curalium*, some call *Pyrites*, because it seemeth to haue great store of fire in it: howbeit, there is another fire stone going vnder the name of *Pyrites* or *Marcasin*, that resembleth brasse ore in the mine. And they say, that of it there is found great plenty in the Isle *Cypros*, and in those mines which are about *Acarnania*, where a man shal meet with one in colour like silver, and another like gold. These stones be calcined many & sundry waies: some boile them two or three times in hony, so long, vntill all the liquor be consumed: others burne them first in fire of coales, then they calcine them with honey, and afterwards wash them, after the maner of brasse. These stones thus prepared, are good in *Physick*, namely, to heat, to dry, to discusse, to subtiliar grosse humors, and to mollifie all schirrhosities or hard tumors. The same are much vsed also crude and vncalcined (being reduced into powder) for the kings euill, and felons. Moreover, in the rank of these *Marcasines*, some range certaine stones, which we cal quicke

A fire-stones, and of all others they be most ponderous: these be most necessarie for the espials belonging vnto a camp, if they strike them either with an iron spike or another stone, they will cast forth sparks of fire, which lightning vpon matches dipt in brimstone, dry puffs or leaues, will cause them to catch fire sooner than a man can say the word.

As touching the stones *Ostracites*, they haue a resemblance to oister shels, wherof they took their name: vsed they are much in stead of a pumish stone to smooth and slick the skin: taken in drink they stanch any flux of blood; and in forme of a liniment applied with hony, they heale the vlcers in womens breasts, and assuage their paine.

The * *Amiant* stone is like *Alume*, & being put into the fire, loseth nothing of the substance: a singular propertie it hath to resist all enchantments and forceries, such especially as *Magiti-* ans do practise. As for *Gaeodes*, the Greeks haue giuen it this significant name, because it containeth inclosed within the belly, a certaine earth, a medicine soueraine for the eies, as also for the infirmities incident as well to womens paps, as mens genitoirs.

The stone *Melittites* hath that name, because if it be bruised or braied, it yeeldeth from it a certaine sweet juice in manner of honey: the same being incorporat in wax, is good to cure the flegmatick wheales, and other pusses or specks of the body; it healeth likewise the exulceration of the throat: applied with wool, it takes away the chilblanes or angry bloudifalls called *Epinyctides*: also the grieve of the matrice it easeth in the same manner.

The *Geat*, which otherwile we call *Gagates*, carrieth the name of a towne and riuer both in *Lycia*, called *Gages*: it is said also, that the sea casteth it vp at a full tide or high water into the C Island of *Leucola*, where it is gathered within the space of twelue stadia, and no where els: black it is, plaine and euen, of an hollow substance in manner of a pumish stone, not much differing from the nature of wood, light, brittle, and if it be rubbed or bruised, of a strong sauor. Looke what letters are imprinted in it into any vessel of earth, they will neuer be got out again: whiles it burneth it yeelds a smel of brimstone: but a wonderful thing it is of this jeat stone, that water will soone make it to flame, and oile will quench it againe: in burning, the perfume thereof chaseth away serpents, and recouers women lying in a trance by the suffocation or rising of the mother: the said smoke discovereth the falling sicknesse, and bewraieth whether a yong damself be a * maid or no: being boiled in wine, it helpeth the tooth ache, and tempered with wax it cures the swelling glandules called the Kings euil. They say that *Physicians* vse this jeat stone much in their forceries, practised by the means of red hot axes, which they call *Axinomantia*; for they affirme, that being cast thereupon, it will burn and consume, if what we desire and wish shall happen accordingly.

As for *Sponges*, I mean by them in this place certain stones found in *Sponges*, and the same also do ingender naturally within them. Some there be who cal them *Tecolithos*, because they are good for the bladder, in this respect, that they breake the stone, being drunk in wine.

As concerning the *Phrygian* stone, it beareth the name of the country where it is ordinarily found, and it groweth in hollow lumps in manner of a pumish stone: the order is to steep it well in wine before it be calcined, and in the burning to maintain the fire with blast of bellows, vntil it wax red; then to quench it again in red wine, continuing this course three times: & being thus prepared, it is good only to scoure cloth, and make it ready for the Dier to take a colour.

CHAP. XX.

¶ Of the red Bloud-stone *Hæmatites*, and the fine sorts thereof: also of the blacke sanguine stone called *Schistos*.

The bloud-stone *Schistos* and *Hæmatites* both haue great affinitie one with another. As for the bloud-stone *Hæmatites*, a meere mineral it is, and found in mines of metall: being burnt it comes to the colour of *Vermilion*: the manner of calcining it is much after that of the *Phrygian* stone, but wine serueth not to quench it. Many sophisticate it with *Schistos*, and obtrude the one for the other: but the difference is soon known, for that the right *Hæmatites* hath red veins in it, and besides is by nature fraile and easie to crumble: of wonderful operation it is to help bloud-shotten eies: the same giuen to women to drink, staieth the immoderat flux that follows them: they also that vse to cast vp bloud at the mouth, find helpe by drinking it with the juice of a pomgranat: in the diseases likewise of the blader it is very effectual;

E e e

and

* It is taken for *Alume* de plume.

* If she drinke it fasting, presently it prouoketh vrin, if she be a pure virgin.

and being taken in wine, it is souverain against the sting of serpents. In all these cases the bloud- G
stone Schistos is effectual, but weaker only it is in operation: and yet among these sanguine or
bloud-stones, those are taken for the best and most helpfull which in colour resemble saffron;
& such haue a peculiar resplendant lustre by themselves. This stone being applied to weeping
and watery eies with womans milk, doth them much good, and is souverain also to restrain and
keep them in, if they be ready to start out of the head. And this I write according to the mind
and opinion of our modern writers. But *Soranus* a very antient writer hath deliuered vnto vs five
kinds of bloud-stones, besides that *Hæmatites* called *Magnes*, or the Load-stone: among which
he giues the chiefe prize and principall praise to the *Æthiopian*, for that it is so souverain to be
put into medicines appropriat to the eies; as also into those which for their excellent opera-
tion be called *Panchresta*. A second sort he saith is called *Androdamas*, black of colour, and for H
weight and hardnesse surpassing all the rest, whereupon it took that name, and of this kind there
are found great store in Barbary. He affirmeth moreover, That it hath a qualitie to draw vnto it
siluer, brasse, and iron: and for triall whether it be good or no, it ought to be ground vpon the
touch called *Basanitis*; for it will yeeld a bloudy juice, the which is a right souverain remedie
for the diseases of the liuer. The third kind of bloud-stone he maketh *Arabick*, for that it is
brought out of Arabia: as hard it is as the other, for hardly will there any iuice come from it,
though it be put to the grindstone, and the same otherwhile is of a Saffron colour. The fourth
sort he saith is called *Elatites*, so long as it is crude; but being once calcined, it is named *Miti-* I
fort he saith is called *Elatites*, so long as it is crude; but being once calcined, it is named *Miti-*
for a very excellent thing for burns and scaldings, and in all cases much better than any ruddle
whatsoever. In the fift place he reckons that which is called *Schistos*: this is held to be singu-
lar for repressing the flux of bloud from the hemorrhoid veins. But generally of all these bloud
stones he concludes thus, That if they be puluerised, and taken in oile vpon a fasting stomach to
the weight of 3 drams, they be right souverain for all fluxes of bloud. The same author writes
of another *Schistos* which is none of these *Hæmatites*, and this they call *Anthracites*: and by
his saying, found there is of it in Africk, black of colour, which if it be ground vpon a whetstone
or grindstone with water, yeelds toward the nether end or side thereof that lay next the ground,
a certaine blacke iuice; but on the other side of a saffron colour: and he is of opinion, that the
said iuice is singular for those medicines appropriat to the eies.

CHAP. XXI.

¶ Of the foure kindes of the *Ægle*-stone, *Aëritus*: of the stone *Callimus*: of the
stones *Sannus* and *Arabus*: and of *Pumish* stones.

THE *Ægle*-stones called *Aërites* be much renowned in regard of the very name they carry:
found they are in *Ægles* nests, as I haue shewed already in my tenth book, & it is said that
they be two together, to wit, the male and female: also, that without them the *Ægles* can-
not hatch, which is the reason that they neuer haue but two young *Ægles* at one airie. Of this
Ægle-stone there be foure kinds, for one sort thereof is bred in Africk, and is very small & soft,
containing within it as it were in a wombe, a certaine clay which is sweet, pleasant, and white;
the stone it selfe is brittle and apt to crumble, and this is thought to be the female sex. The se-
cond, which is taken for the male, groweth in Arabia, hard this is, and resembleth a gall-nut in
fashion, and the same otherwhile is of a reddish colour, hauing inclosed within the belly there-
of another hard stone. The third is found in the Island *Cypros*, for colour much like to those
that be engendred in Africke, otherwise bigger, and made more flat and broad than they: The
rest be vsually round in manner of a globe. This hath also within the wombe a sweet sand and
other small grauelly stones, but it selfe is so tender that a man may crumble it betwixt his fin-
gers. The fourth kind is named *Taphiusus*, for that it is bred neere vnto the cape *Leucas*: in a
place neere *Taphiua*, on the right hand as men saile from the said *Taphiua* toward *Leucas*:
there is found of it in riuers, but the same is white and round: within the belly of it there is a
nother stone called *Callimus*, and there is not a thing more tender than it. But to come to the
properties of these *Ægle*-stones: They are commended as singular for women with childe, or
four-footed beasts that are with yong; for being hung about their necks, or otherwise tied vnto
any part within the skin of a beast sacrificed, they will cause them to go out their full time; but
remoued

A remoued they must not be but at the very time of deliuerance, for otherwise the very wombe or
matrice would slip out withall, and vnlesse they be remoued then, they shall neuer be deliuered.
Within the same Isle *Samos* (wherin we praised the goldsmiths earth *Tripoly*) there is a stone
likewise called *Samius*, very good to burnish and polish gold: the same serueth also in physicke
together with milk, for vicers of the eies, beeing applied in manner aforesaid; and in that sort it
cureth also their weeping and warring which hath continued a long time: the same being taken
in drinke, helpeth the infirmities and other accidents of the stomach; it cureth the dizziness of
the head, & restoreth those to their right senses again who be troubled in their brain. Some are
of opinion, that it is wholsome to be giuen to those that are subject to the falling sicknesse, or
difficulty of making water: besides, it is one of the ingredients that go to the making of those
medicines which be called *Acopa*: for to know whether it be good, see that it be passing white
and heavy withall. It is said, that if a woman weare it hanging or tied about her, it will keep her
from vntimely slips of her abortiue fruit, and withall containe the matrice though it were giuen
to fall downe too low.

Touching the stone *Arabus*, like it is to yvorie; a proper thing for dentifrices, if it be calci-
ned and reduced to pouder: a peculiar property it hath besides, to cure the hemorrhoids, beeing
applied thereto in lint, so that there be fine linnen clothes laid afterwards thereupon.

I must not ouerpasse in silence, the treatise of pumish stones and their nature: I am not igno-
rant that in architecture and masonrie, they vse to call by the name of *Pumices* or *Pumishes*
those hollowed stones or bricks as if they were eaten into, which hang downe from those vault-
ed buildings which they call *Musea*, to represent a caue or hollow vault artificially made. But
to speake more properly of those *Pumishes* which are vsed by women for to smooth and flicke
their skin, yea, and by your leaue by men also in these daies; also for to polish books, as *Catullus*
saith, the best of them are found in *Melos*, *Scyros*, and the Islands of *Ætolia*: and those ought to
be very white, and according to their proportion exceeding light: the same should bee also as
spongiuous as is possible, and dry without; easie to be beaten to pouder, & in the rubbing between
the fingers not apt to yeeld from them any sand. As for their medicinable vertues, they do ex-
tenuat and dry, after 3 calcinings, so that regard be had in the torrifying, that it be done with
cleane charcoles that burn cleare, and that they be euery time quenched with whitewine: which
done, they are to be washed like to *Cadmia* or the *Calamine* stone; and being dried again, they
D would be laied vp in some dry place which is in any wise dank or giuen to gather mouldiness.

The pouder of this stone is commended principally in medicines for the eies, for a gentle muni-
ficatiue it is, and clenseth the vicers and sores incident to them: it doth incarnate hollow
skars & maketh them euen with the rest about them. Some, after the third burning, suffer them
to coole of themselves, and not by quenching: and chuse rather to beat them afterwards with
some sprinkling of wine among: they enter likewise into those emollitiue or lenitiue plaisters
which are deuised for the sores of the head or vicers in the priuities. The best dentifrices for to
cleanse or whiten the teeth, be made of the pumish. *Theophrastus* writeth, that great drunkards
who drink for a wager, vse to take the pouder of the pumish stone before-hand; for then they
may, nay they must quaffe lustily indeed, for vnlesse they be filled with drinke, they are indan-
E gered by the foresaid pouder. To conclude, he saith, that so exceeding refrigeratiue it is, that if
new wine do work or purge neuer so much, cast but a little pumish stone into it, you shall see it
giue ouer immediatly.

CHAP. XXII.

¶ Of stones which be good for Apothecaries to make their mortars of: of soft stones: of
the glasse-stone: of flints and the shining stone *Phengites*: of whetstones
and grindstones: of other stones that serue in building, which
resist the violence of fire and tempests.

OF Vntient writers in old time were carefull to finde stones fit for mortars, and not onely
to serue Apothecaries for to beat and puluerize their drugs, or painters to grinde their
colours, but the cooks also in the kitchen for to pouder their spices: and in very truth,
they preferred the *Ephesian* marble before all others: and next to it, that of *Thebais* in high *Æ-*
gypt, which I called before *Pyrhopæcilon*, though some there be that name it *Psaronium*: in a
third

third degree they place a kinde of Chalazius named Chrysites; but the Physitians make most account of that kind of whetstone which they call Basanites, because this stone sendeth nothing from it, for all the stamping and punning that is made in it. As for such stones as yeeld a certaine moisture from them, they are supposed to be good for eie salues; and therefore in that regard the Æthyopian marble is best esteemed for that purpose. As for the marble of Tanara, of Carthage called Poenicum, and the bloud-stone Homatites, they are al good (they say) for those compositions which stand vpon safron: but that Tanarian marble which is blacke, as also the white marble of Paros, is not so good for Physitians, who rather chuse the Alabastrite of Egypt, or the white Serpentine marble: for this kind of Ophites it is whereof they make their vessels and barels. In the Island Siphnus there groweth in the quarries, a stone, which they vse to hew and hollow, and by Turners craft make vessels for the kitchin good to boile viands in: also very hand-
H
some for platters and dishes to serue vp meat to the table; much like to the green stone that cometh from Comus in Italy, which wee see ordinarily imploied to those vses: but this propertie hath the Siphnian stone by it selfe, that if it be once heat with oile, it beginneth to look blacke and waxes hard withal, being otherwise naturally exceeding soft: such difference there is among the stones. For on the further sides of the Alps there be stones found exceeding soft: and in the province Belgica or Picardy, they haue a certaine white stone, which they slit through with a saw as they do timber, yea and with much more facility, wherewith they make plates that serue to couer their houses in manner of slates or tiles, both on the sides and also in gutter and ridge; yea and if they list, to make fine work vpon the roofs that may shine like to peacocks feathers, which they call Pauonacea: and verily this kind of stone is apt also to be clouen.

As touching * Talc (which also goeth in the name of a stone) it is by nature much more easie to be clouen into as thin flakes as a man will. This kind of glasse stone, the hither part of Spaine only in old time did afford vs, & the same not all throughout, but within the compasse of a 100 miles, namely about the city Segobrica: but in these daies we haue it from Cypros, Cappadocia, and Sicilie, and of late also it hath been found in Barbary: howbeit, the best glasse stone comes from Spaine and Cappadocia, for it is the tendrest and carrieth largest pannels, although they be not altogether the clearest, but somewhat duskish. There be also of them in Italy about Bononia, but the same be short and small, full of spots also and joined to pieces of flint; and yet it seemeth that in nature they be much like to those that in Spaine bee digged out of pits which they sinke to a great depth. Moreouer, there is found of this Talc betwene other stones inclosed in a rocke and lying vnder the ground, which must be hewed out if a man would haue them. But for the most part, this Talc lieth in manner of a vein in the mine by it selfe, as if it were perfectly cut already by nature; and yet was there neuer any piece knowne to be aboue five foot long. Some are of opinion, that it is a liquid humour of the earth congealed to an yce after the maner of Crytall. Certes, that it groweth hard into the nature of a stone, may appeare evidently by this, That when any wild beafts are chanced to fall into such pits where this glasse stone is gotten, the very marow of their bones (after one winter) will be conuerted and turned into a stony substance like to the Talc it selfe. Otherwhiles there is found of this kinde which is blacke: but the white is of a strange and wonderfull nature, for being (as it is well knowne) tender and brittle, nothing more, yet it wil indure extreme heat and frozen cold, and neuer cracke; L
may you shal neuer see it decay for age, keep it so long as you wil, so that it may escape outward injuries: notwithstanding we doe see many stones in building laied with strong mortor and cement, yet subiect to age. There hath beene deuised another vse also of Talc in smaller pieces, namely, to paue therewith the floore of the great shew-place or cirque in Rome, during the running of chariots and other feats of actiuitie there performed, to the end that their whitenesse might giue a more louely glosse to commend the place. In the daies of Nero late Emperour, there was found in Cappadocia a stone as hard as marble, white and transparent, and shining through, yea euen on that side where it hath certaine reddish streakes or spots: in which regard, (for that it is so resplendent) it hath found a name to be called Phengites. Of this stone, the said Emperour caused the temple of Fortune to be built called Seia (which king Seruius had first de-
M
dicated) comprised within the compasse of Neros golden house: and therefore when the doores stood open in the day time, a man might see within, the day light, after the manner of glasse stones; yet so, as if all the light were within-forth onely, and not let in from the aire thow-
row the windowes. Moreouer, king Iuba writeth, that in Arabia there is a certaine stone found, which

which likewise shineth as glasse, whereof the inhabitants of those parts do make their mirrors or looking-glasses.

It remaineth now, that I should proceed to those stones which are by workmen imploied to good and necessary vses: first of all, to those which serue to whet tools and instruments of yron, of which there be many sorts: Those of Candie, for a long time were of greatest name & most in request: in a second degree were those accounted which came from the mountaine Targetus in Laconia: but both the one and the other serue for no vse, without oile. But among the grind-stones and whetstones which are occupied with water, those of Naxos were in greatest price and most enmended; next to them, those of Armenia, whereof I haue already written. The stones of Cilicia wil do wel enough either with water or oile, it skills not whether: but the whetstones, B
that come from Arfinoe, are onely vsed with water. There bee found in Italie whetstones, which with water will giue a wonderfull keene edge; also beyond the Alps, and such they call Passernices. In a fourth rank are to be reckoned those stones which serue for a mans spittle, and such be the bones that Barbers occupie for to sharpen their rasors; but they are of little or no vse at all because they be so soft and brittle: and of this kind, the chiefe are sent out of the higher part of Spain from the country Flamminitana. As for other stones whereof I haue not written already, they be all naught for building, so soft they be, and by that means nothing durable: and yet in some countries they haue none other to build withall, as namely at Carthage in Africk, notwithstanding the wals of the houses there are subject to the waters of the sea, are pinched and pierced with winds, yea and beaten with rain and weather; against which inconueni-
C
ences the inhabitants are forced to keep their wals with pitching, for otherwise (the stones are so tender and soft) the ordinary parget of lime would fret and eat them: wherupon there goeth a pretty speech of the Carthaginians, that they do contrary to all others, in that they vse pitch to their houses, and lime to their wines; for in truth they tun vp their new wines with lime. There be found moreouer about Rome other soft stones, to wit, in the territories belonging to Fidena and Alba: in Liguria likewise, Vmbria, and Venice, they haue a white free stone, which may be easily cut with a toothed saw: these are very tractable and easie to be wrought, and wil last reasonable well, but within house only; for if the weather lie vpon them, if the rain beat, and the pin-
D
ching frost come, they will pill and skale, yea and break into pieces; neither be they durable against the breath and vapor of the sea. The Tyburtine stones, they will indure all other things well enough, only they may not abide hot vapors, for if the heat of summer take them, they will gape and be ready to cleaue in sunder. As for flints, the black, and in some places the red also, are much commended: in certaine countries, the white be very good; as namely, those in the quaries about Anicia within the territory of Tarquinij about the lake neere vnto Volusini: also along the tract of Statona, there be good building stones that wil take no harm by fire; these are commonly vsed for those monuments and memorials wherin ought to be ingraued, for they continue a long time, and are not the worse for age: Of this kind of stone, the founders make their moulds for to melt brasse in. Moreouer, there is a kinde of greene stone, which wonderfully checketh and scorneth all fire, but in no place is there plenty thereof to be had: and wheresoever it is found, it groweth not in manner of a rock or quarrie, but lieth scattered here and there. Of the
E
rest that hitherto are not named, the pale stone is not good for building, and seldome will it serue to make mortor of. The round pebbles are lasting enough, and will indure any hardnesse, but surely in building nothing trusty, vnlesse they be knit and bound with strong mortor and couched well together. Those that are gathered out of riuers make no sure building, for they seeme alwaies to relent and be moist; but for such stones as these, and generally for all those that we doubt, the only remedy is to dig them out of the ground in Summer, to let them haue two yeres seasoning in lying abroad and taking all kinds of weather before they be employed in building; and look how much thereof hath caught harme by this means, the same will serue very well in ground works and foundations: and that which continueth still sound, you may be bold to put it in building, yea, in open workes without dore. The Greekes haue a kinde of wall
F
which they make of hard pebbles or flint couched euen and laied in order by line and leuell, like as we do in bricke wals: and this kind of building they call in Mafonrie Isodomon: but in case they be not euen laied nor ranged freight, but that some part of the wall is thicker than others, they terme it Pseudisodomon. A third manner they haue which they name Emplecton, namely, when the front onely of the wall is smooth and euen, for otherwise within they huddle & fill

one with another. Moreouer, to lay a wal artificially and to bind the stones wel, they ought in alternatie course to ride and reach one ouer another halfe, so that the joint may fall out in the mids of a stone both above and vnder; a necessarie point to be considered in the very mids of a wal if it be possible: if not so, yet in any case toward the sides & ends thereof: as for the middle of the wall within, it would be well stuffed and filled with any rubbish, rammel, and broken stones. There is a kind of net-work building in Masonry called Dictyotheton, ordinarily vsed in Rome, but subiect it is to cracke and chinke. In sum, a wall would be built by rule and square, by line and leuell, and answerable to the plumb.

CHAP. XXIII.

¶ Of Cisterns, and Lime: of sundry sorts of Sand: of the tempering of Sand and Lime together for mortar: of faults in Masonrie: of Pargetting and other Rough-casting: of the proportion of Columnes and Pillars.

FOR to make good cisterns which might hold water, the mortar that goeth thereto ought to be made of five parts of fine pure sand and grauelly together, to two parts of the most strong and binding lime that may be gotten; provided alwaies that the fragments of flint which are to be imploied herein, be small, and exceed not the weight of one pound a piece: this done, not only the bottome or pauing, but the side-walls and the ends, ought to be rammed downe hard with yron beetles; howbeit, for to keep good and cleare water, it were the better way to haue alwaies two cisterns together, that in the former the water may settle and cast down al the grounds to the bottome, and to the cleare water only passe into the other as if it were strained through a fine colonder. As touching lime, *Cato Censorius* disalloweth that which is made of diuers stones, or of sundry colours: and to speake a truth, white stones are better to make lime than the hard, and such is more meet to lay stone withall in Masonrie; howbeit the lime which commeth of hollow and fistulous stones, is thought to serue better for to couer and parget walls. The lime which commeth of flint, is rejected both for the one and the other: also the lime made of stones digged out of the ground, is farre better than of pebbles gathered from riuier sides: that which commeth of millstones is most profitable, for it is more fatty and glutinous than others. A strange and wonderfull matter it is, that any thing after it hath bin once burnt and calcined, should be set on fire againe with water. And thus much of Lime.

As touching Sand, there be three kinds thereof: the one is digged out of pits in the ground, and this requireth a fourth part of lime to be put vnto it in making mortar: a second commeth out of riuier sides or the sea shore, and this would haue a third part: and if there be besides another third part of potsherds beaten to powder and put thereto, the stuffe or mortar will be the better. Between the Apennine hill and the riuier Po, there is no sand digged out of the ground, ne yet any sea sand at all. And verily, the greatest reason that cities fall to decay and be so ruinat, is this, for that the mortar being robbed of the due proportion of lime, hath not that binding as it ought, and so the walls built therewith are not fodred accordingly. Also, this would be obserued, that mortar the elder that it is, the better it is found for building. Moreouer, in the old laws which prouide for the perpetuities of houses in antient time, we find it expressly set down, that the undertaker to build a house at a certain price, shall vse no mortar vnder three yeres of age: and this was the reason that in those daies a man should not see any rough-cast or parget to rise or chawne illfaoueredly as now they do: and in truth, vnlesse there be laid vpon wals three coats or couches (as it were) of mortar made with sand and lime, and two courses ouer them of other mortar made of marble grit and lime tempered together, the wals will not be permanent nor otherwise faire and resplendent as they ought to be: and look where wals be dampish and giuen to sweat a certaine salt humor or sal-petre, it were very well to lay a ground vnderneath of mortar made of the powder of potheards and lime wrought together. In Greece they haue a cast by themselves, to temper and beat in mortars, the mortar made of lime and sand wherewith they meane to parget and couer their walls, with a great wooden pestill. As for the mortar made of marble-grit and lime together, the true marke to know whether it haue making sufficient for building, is this, namely, if it will not sticke to the shouell that worketh it, but will come out of the heap neat and clean: but contrariwise, in whiting and fret work, the lime being foked and wet in water, ought to cleaue fast like glew; neither ought it to be tempered with water, but in the

A grosse masse or lumpe. At Elis there standeth a temple consecrated to the honour of *Minerua*, wherein *Pannecus*, the brother of *Phidias* vsed a parget (as they say) which he tempered with milk and saffron together; and therefore at this day, if a man wet his thumb with spittle, and rub it against the wall, he shall perceiue both the smell and tast of saffron to remaine still.

As touching pillars in any building, the thicker they stand one to another, the bigger & greater they seem to be. Our architects and masons make foure sorts of them: for they say, that such pillars as beare in compasse or thicknesse toward the foot, as much as commeth to the sixt part of the height, be called Dorique: those that carry but a ninth part, are Ionique: such as haue a seventh part, be Tuscanique. And as for the Corinthian pillars, their proportion is answerable to the Ionique; onely this is the difference, that the Chapters of the Corinthian pillars arise in height to as much as the compasse at the base taketh vp: in which regard they seem more slender than others. As for the height of the Ionick chapter, it is just the third part of the thicknes. The proportion ordinarily in old time for the height of pillars, was answerable to the third part of the bredth of the temple. In the temple of *Diana* at Ephesus, the inuention was first practised to pitch the footfall of pillars vpon a quadrant or square below, and to set chapters vpon their heads. And as touching the proportion, it was thought sufficient in the beginning, if a columnne contained in compasse or thicknesse the eight part of the height; also, that the square of the quadrant vnder the base, should containe halfe the thicknesse of the pillar: finally, that the pillars should be smaller by one seventh part in the head, than at the foot. Over and besides these pillars, there be others also of the Atticke fashion, and those be made with foure corners, and the sides are equall.

CHAP. XXIII.

¶ The medicinable properties of Lime. Also, as touching the Maltha vsed in old time, and of Plastre.

MUCH vse there is of Lime also euen in Physick: but then there must be chosen that which is quick and vnqueint. Such lime is caustick, discussive, and extractiue: the same also is proper to repress corrosiue vlcers that begin to spread and run far. If the said lime bee tempered with vinegar and oile of roses, it maketh an excellent healing plastre, which will skin vp a sore clean. The same if it be incorporat with swines grease or liquid rosin and hony together, serues also to set bones in ioint: & the same composition is likewise good for the kings euil. Concerning Maltha, it was wont to be made of quick and new lime: for they took the Lime-stone and quenched it in wine; which done, presently they punned it with swines grease and figs; hereof they made ordinarily two couches: and being thus tempered and laid, it was thought to be the fastest whitening that could be deuised, and in hardnesse to exceed a stone. But looke whatsoeuer is to be pargetted with this Maltha or mortar thus prepared, ought first to be rubbed thoroughly with a size of oile.

Of neare affinity to lime is plastre, whereof be many kinds: for there is a kind of plastre artificiall, and namely in Syria and about *Thurium*, made of stone calcined in manner of lime: and there is of it that is digged out of the ground naturally, as namely, in the Isle *Cyprus*, and about the *Perrhoebians*. Neare *Thymphaea*, a city in *Ætolia*, it lieth very ebbe and as it were euen with the ground: as for the stone that is to be burnt for it, the same ought to be not vnlike to the stone *Alabastrites*, or at leastwise to that which stands much vpon marble. In Syria they chuse for this purpose the hardest, and they burne the same with cow dung, that it may the sooner bee calcined. But the best plastre of all other is known (by experience) to be made of the Talc or the glasse stone aforesaid, or at leastwise of such as haue the like flakes as Talc. Plastre must be wrought and driuen presently whiles it is wet and will run, for nothing in the world will so soon thicken and dry: and yet when it hath bin vsed already, it may be beaten again to powder, & serue the turn in new workes. Plaster serueth passing wel to white wals or seeling, also for to make little images in fretwork, to set forth houses, yea, and the brows of pillars and wals; to cast off rain. To conclude, I may not forget that which befell to *C. Proculius*, a great fauorit and follower of *Augustus Caesar*, who in an extreame fit of the paine of the stomacke, dranke plastre; and so killed himselfe wilfully.

¶ Sundry kinde of paved floores: and when at first they began to be used at Rome. Of open terraces paved. Of Greekish pavements. And the first inuention of arched or embowed roofes.

THE deuise of paved floores arose first from the Greeks, who made them with great art, and curiously, in regard of the painting in sundry colours which they bestowed therupon: but these braue painted floores were put downe, when pavements made of stone and quarrels came in place: the most famous workman in this kind, was one *Sofus*, who at Pergamus wrought that rich pavement in the common hall, which they call *Asaroton* (con, garnished with bricks or small tiles eneaied with sundry colours: and he deuised, that the worke vpon this pavement should resemble the crums and scraps that fel from the table, and such like stuffe as commonly is swept away, as if they were left stil by negligence vpon the pavement. Among the rest, wonderfull was his handiworke there, in pourtraying a Doue drinking, which was so liuely expressed, as if the shadow of her head had dimmed the brightnesse of the water: there should a man haue seen other Pigeons sitting vpon the brim of the water tankard, pruning themselves with their bills, and disporting in the Sunshin. The old paved floores, which now also are much used especially vnder roofe and couert, howsoeuer they came from barbarous countries, were in Italy first patted and beaten downe with heauie rammers; as we may collect by the verie name it selfe. Pavement, which comes of *Pavire*, i. to ram downe hard. As for the manner of paving with small tiles or quarrels ingrauen, the first that euer was seen at Rome, was made within the temple of *Iupiter Capitolinum*, and not before the third Punicke war begun. But ere the Cimbrian wars began, such pavements were much taken vp in Rome, and men tooke great delight and pleasure therein, as may appeare sufficiently by that common verse out of *Lucilius* the Poet.

Ante Pavimenta at a emblemata vermiculata, &c.

Before the Pavements checker-wrought in painted Marquetry, &c.

As touching open galleries and terraces, they were deuised by the Greeks, who were wont to couer their houses with such. And in truth, where the country is warme, such deuises doe well: howbeit, they are dangerous and deceitfull, where there is store of rain and frost. But for to make a terrace so paved, necessary it is first to lay two courses of boords or planks vnderneath, and those crosse and ouerthwart one the other: the ends of which planks or boords ought to be nailed, to the end they should not twine or cast at aside, which done, take of new rubbish two third parts, and put thereto one third part of shards stamped to pouder, then with other old rubbish mix two fve parts of lime, and herewith lay a couch of a foot thicknesse, and be sure to ram it hard together. Ouer which there must be laid a coator course of mortar, six fingers bredth thick, and vpon this middle, couch broad square paving tiles or quarrels, and the same ought to enter at least two fingers deep into the said bed of mortar. Now for that this floore or pavement must rise higher in the top, this proportion is to be obserued, that in euery ten foot it gain an inch and a halfe. After which, the pavement thus laid is to be plained and polished diligently with some hard stone: and aboue al, regard would be had, that the planks or boorded floor were made of oke. As for such as do cast or twine any way, they be thought naught. Moreouer, it were better to lay a course of flint or chaffe between it and the lime, to the end, that the said lime might not haue so much force to hurt the boord vnderneath. Requisit also it were to put vnderneath round pebbles among. After the like maner be the spiked pavements made of flat tiles & shards. And here I must not forget one kind of paving more, which is called *Grecanicke*, the manner wherof is thus. The Greeks after they haue well rammed a floore which they mean to pave, lay therupon a pavement of rubbish, or else broken tile shards; and then vpon it, a couch of charcoale well bearen and driuen close together, with sand, lime, and small cindres well mixed together: which done, they do lay their paving stuffe to the thicknesse of halfe a foot, but so euen, as the rule and square will giue it; and this is thought to be a true earthen paved floore of the best making. But if the same be smoothed also with a hard flicke stone, the whole pavement wil seem all black as for those pavements called *Lithostrata*, which be made of diuers coloured squares couched in

G

A works, the inuention began by *Syllas* time, who used thereto small quarrels or tiles at *Preneeste* within the temple of *Fortune*, which pavement remaines to be seen at this day. But in proceffe of time pavements were driuen out of ground-floores, and passed vp into chambers, and those were seeled ouer head with glasse: which also is but a new inuention of late deuised: for *Agrippa* verily in those baines which he caused to be made at Rome, annealed all the potterie worke that there was, and enamelled the same with diuers colours: whereas all others be adorned only with whiting: & no doubt he would neuer haue forgotten to haue arched them ouer with glasse if the inuention had bin practised before, or if from the wals & partitions of glasse which *Scavrus* made vpon his stage, as I said before, any one had proceeded also to rooffe chambers therewith. But since I am fallen vpon the mention of glasse, it shall not be impertinent to discourse somewhat of the nature thereof.

¶ The first inuention of glasse, and the manner of making it. Of a kind of Glasse, called *Obsidianum*. Also of sundry kinde of Glasse, and those of many formes.

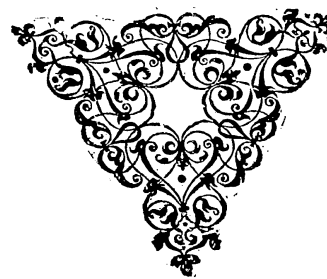
HERE is one part of Syria called *Phoenice*, bordering vpon *Iurie*, which at the foot of the mount *Carnell*, hath a meere named *Cendeuia*; out of which the riuer *Belus* is thought to spring, and within fve miles space, falleth into the sea, near vnto the colony *Ptolemais*: This riuer runneth but slowly, and seemeth a dead or dormant water, vnwholesome for drinke, howbeit, used in many sacred ceremonies with great deuotion; full of mud it is, and the same very deepe ere a man shall meet with the firm ground: and vnlesse it be at some spring tide, when the sea floweth vp high into the riuer, it neuer sheweth sand in the bottom; but then, by occasion of the surging waues, which not only stir the water, but also cast vp & scoure away the grosse mud, the sand is rolled too and fro, and being cast vp, sheweth very bright and cleare, as if it were purified by the waues of the sea: and in truth, men hold opinion, That by the mordacity and astringent quality of the salt water, the sands become good, which before serued to no purpose. The coast along this riuer which sheweth this kind of sand, is not aboue halfe a mile in all, and yet for many a hundred yeare it hath furnished all places with matter sufficient to make glasse. As touching which deuise, the common voice and fame runneth, that there arriued sometimes certain merchants in a ship laden with nitre, in the mouth of this riuer, & being landed, minded to seeth their victuals vpon the shore and the very sands: but for that they wanted other stones, to serue as treuets to beare vp their pans and cauldrons ouer the fire, they made shift with certaine pieces of sal-nitre out of the ship, to support the said pans, and so made fire vnderneath: which being once afire among the sand and grauell of the shore, they might perceiue a certaine cleare liquor run from vnder the fire in very streams, and hereupon they say came the first inuention of making glasse. But afterwards (as mans wit is very inuentiue) men were not content to mix nitre with this sand, but began to put the Load-stone among, for that it is thought naturally to draw the liquor of glasse vnto it, as well as yron. Then they fell to calcine and burne in many other places shining grauell stones, shels of fishes, yea, and sand digged out of the ground, for to make glasse therewith. Moreouer, diuers authors there be who affirme, That the Indians vse to make glasse of the broken pieces of Crystall, and therefore no glasse comparable to that of *India*. Now the matter whereof glasse is made, must be boiled or burnt with a fire of dry wood, and the same burning light and cleare without smoke, and there would be put thereto brasse of *Cypros*, and nitre, especially that which commeth from *Ophyr*. The furnace must bee kept with fire continually, after the manner as they vse in melting the ore of brasse. Now the first burning yeeldeth certaine lumps of a fatty substance, and blackish of colour. This matter is so keene and penetrant whiles it is hot, that if it touch or breath vpon any part of the body, it will pierce and cut to the very bone ere one be aware or do feele it. These masses or lumps be put into the fire againe, and melted a second time in the glasse houses, where the colour is giuen that they shall haue: and then some of it with blast of the mouth, is fashioned to what form or shape the workman will: other parcells polished with the *Turners* instrument, and some againe engrauen, chamed, and embossed in manner of siluer plates: in all which feats, the *Sidonians* in times past were famous artificers: for at *Sidon* were deuised also mirroirs or looking glasses. Thus much as touching

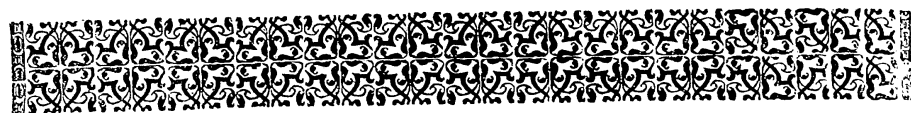
ching the antique maner of making glasse. But now adaies there is a glasse made in Italy of a certain white sand, found in the riuer Vulturinus for six miles space along the shore towns, from the mouth where he dischargeth himselfe into the sea, and this is between Cumes and the lake Lucrinus. This sand is passing soft and tender, whereby it may be reduced very easily into fine powder, either to be beaten in mortar or ground in mill: to which powder the manner is to put three parts of nitre, either in weight or measure, and after it is the first time melted, they vse to let it passe into other furnaces, where it is reduced into a certain masse, which, because it is compounded of sand and nitre, they call Ammonitrum: this must be melted againe, and then it becomes pure glasse, and the very matter indeed of the white clear glasse: & in this sort throughout France and Spain the maner is to temper their sand, & to prepare it for the making of glasse. Moreouer, it is said, That during the reigne of *Tiberius* the Emperour, there was deuised a certain temper of glasse, which made it pliable and flexible to wind and turne without breaking: but the *artificer who deuised this, was put downe, and his work-house, for feare lest vessels made of such glasse should take away the credit from the rich plate of brasse, siluer, and gold, and make them of no price: and verily, this bruit hath run currant a long time (but how true, it is not so certain.) But what booteth the abolishing of glasse-makers, seeing that in the daies of the Emperour *Nero* the art was growne to such perfection, that two drinking cups of glasse (and those not big, which they called *Pterotos*) were sold for 6000 sesterces.

There may be ranged among the kinds of glasses, those which they call *Obsidiana*, for that they carry some resemblance of that stone, which one *Obsidius* found in *Aethyopia*; exceeding blacke in colour, otherwhiles also transparent: howbeit, the sight therein is but thicke and dusky. It serueth for a mirror to stand in a wall, and instead of the image yeeldeth back shadows. Of this kind of glasse many haue made jewels in maner of precious stones: and I my selfe haue seene massiue pourtraictures made thereof, resembling *Augustus* late Emperour of famous memory, who was wont to take pleasure in the thicknes of this stone, inso much as he dedicated in the temple of *Concord* for a strange and miraculous matter, foure Elephants made of this *Obsidian* stone. Also *Tiberius Caesar* sent back again to the citizens of *Heliopolis*, a certain image of prince *Menelaus*, found among the moueable goods of one who had bin lord gouernor in *Egypt*, which he had taken away out of a temple, among other cerimonialliques: and the said statue was all of the *Iaiet*, called *Obsidianus*. And by this it may appeare, That this matter began long time before to be in vse, which now seemeth to be renewed again and counterfeited by glasse that resembleth it so neare. As for the said *Obsidian* stone, *Xenocrates* writeth, That it is found naturally growing among the Indians, within *Samnium* also in Italy, and in Spaine along the coast of the Ocean. Moreouer, there is a kind of *Obsidian* glasse, with a tincture artificiall, as blacke as *Iaiet*, which serueth for dishes and platters to hold meat: like as other glasse, red throughout, and not transparent, called for that colour *Hæmatinon*. By art likewise there be vessels of glasse made white and of the colour of *Cassidony*, resembling also the *Iacinth* and *Saphire*, yea, & any other colors whatsoeuer. In sum, there is not any matter at this day more tractable and willing either to receiue any forme or take a color, than glasse: but of all glasses, those be most in request and commended aboue the rest, which be white, transparent and cleare throughout, comming as neare as it is possible to *Crytall*. And verily, such pleasure do men take now adaies in drinking out of faire glasses, that they haue in maner put downe our cups and boules of siluer or gold: but this I must tell you, that this ware may not abide the heat of the fire, vnlesse some cold liquor were put therein before: and indeed, hold a round bal or hollow apple of glasse full of water against the Sun, it will be so hot, that it is ready to burne any cloth that it toucheth. As for broken glasses, well may they be glued and fodered againe by a warme heat of the fire, but melted or cast again they cannot be whole, vnlesse a man make a new furnace of pieces broken one from another: like as we see there be made counting rundles thereof, which some call *Abaculos*, whereof some are of diuers and sundry colors. Moreouer, this would be noted, That if glasse and sulphur be melted together, they will foulder and vnite into a hard stone. To conclude, hauing thus discoursed of all things that are knowne to be done by wit or art, according to the direction of Nature, I cannot chuse but maruell at fire and the operations thereof, seeing that nothing in a manner is brought to perfection but by fire; and thereby any thing may be done.

The wonderfull operations of fire: the medicinable properties that it hath; and the prodigious significations obserued thereby.

Fire receiueth sundry sorts of sand & earth, out of which it doth extract and melt one while glasse, another while siluer, in this place vermilion, in that diuers sorts of lead and tin; sometime Painters colours, and another while matters medicinable. By fire, stones are resolved into brasse; by fire iron is made, and the same is tamed likewise therewith: fire burneth and calcineth stone, whereof is made that mortar which bindeth all worke in masonry. As for some things, the more they be burnt, the better they are, and of one and the same matter a man shall see one substance ingendred in the first fire, another in the second, and another also in the third. As for the coles that go to these fires, when they be quenched they begin to haue their strength and after they are thought extinct and dead they are of greatest vertue. This element of Fire is infinit, and neuer ceaseth working, inso much as it is hard to say whether it consume more than it ingendreth. The very fire also is of great effect in physick; for this is known for certain by experience, there is not a better thing in the world against the pestilence (occasioned by the darkness of the Sun, and the want of cleare light from him) than to make fires and perfumes in diuers sorts, either to clarify or to correct the aire; according as *Empedocles* and *Hippocrates* haue testified in diuers places. *M. Varro* writeth, that fire is good for convulsions, cramps, and contusions of the inward parts: and for this purpose I will alledge the very words he vseth: the Latine word *Lix* (quoth he) is nothing else but the ashes of the hearth; and hereupon comes *Lixivum cinis*. Lie ashes, which being drunk is medicinable, as we may see by fencers and sword-plaiers, who after they haue done their flourishing, and be ready to enter into fight at sharpe, refresh themselves with this potion. Furthermore it is said, That a cole of oke wood being reduced into ashes and incorporat with honey, cureth the carbuncle, which is a pestilent disease, whereof two noblemen at Rome, both Consuls in their time, died of late, according as I haue shewed already. See the wonderfull power in nature, that things despised and of no account, as ashes and coles, should afford remedies for the health of man! But before I make an end of fire, and the hearth where it burneth, I will not passe one admirable example commended vnto vs by the Roman Chronicles: in which we reade, That during the reign of *Tarquinius Priscus* king of Rome, there appeared all on the sudden vpon the hearth where hee kept fire, out of the very ashes, the genital member of a man, by vertue whereof, a wench belonging vnto *Tanaquil* the queen, as she late before the said fire, conceived and arose from the fire with childe; and of this conception came *Servius Tullus* who succeeded *Tarquin* in the kingdome. And afterwards, while hee was a yong childe, and lay asleep within the court, his head was seen on a light fire; whereupon he was taken to be the son of the domestical spirits of the chimney. Which was the reason, that when he was come to the crown, he first instituted the *Compitalia*, and the solemne games in honour of such house-gods or familiar spirits.





THE XXXVII. BOOKE OF
THE HISTORIE OF NATVRE,
WRITTEN BY C. PLINIUS
SECVNDVS.

The Proem.



So the end that nothing might be wanting to this historie of mine concerning Natures works, there remaine behind nothing but pretious stones, wherein appeareth her Maiesty, brought into a narrow and streight roome: and to say a trusp, in no part of the world is she more wonderfull in many respects; whether you regard their varietie, colours, matter, or beauty, which are so rich and pretious, that many make conscience to seale with them, thinking it vnlawfull to engraue any print in them, or to diminish their honour and estimation by that means. Some of them are reckoned inestimable, or valued at all the goods of the world besides, in somuch as many men thinke some one pretious stone or gem sufficient to behold therein the very perfection of Nature, and her absolute worke. Touching the first inuention of wearing such stones in Jewels, and how it tooke first root, and grew afterwards to that height as all the world is in admiration thereof, I haue already shewed in some sort in my treatise of Gold and Rings. And yet I will not conceale from you that which poets do fable of this matter, who would beare vs in hand, that all began at the rocke Caucasus, whereunto Prometheus was bound fast, who was the first that set a little fragment of this rocke within a peece of iron, which being done about his finger, was the ring, and the foresaid stone the gemme: whereof the Poets make much foolish moralization.

CHAP. I.

¶ Of the rich pretious stones of Polycrates the Tyrant, and King Pyrrhus. The first Lapidaries or Cutters in pretious stones. And who was the first that had a case of rings and gems at Rome.



Prometheus hauing giuen this precedent, brought other stones into great price and credit, in somuch as men were mightily inamoured vpon them: and Polycrates of Samos, the puissant prince and mighty monarch ouer all the Islands and coasts thereabout, in the height of his felicitie and happy estate, which himself confessed to be excessive, being troubled in his mind, that he had tasted of no misfortune, and willing after a sort to play at Fortunes game, one while to win, and another while to lose, and in some measure to satisfie her inconstancie, was perswaded in his minde that he should content her sufficiently in the voluntarie losse of one gem that he had, and which he set so great store by: thinking verily, that this one hearts grieve for parring from so pretious a Jewell, was sufficient to excuse and redeeme him from the spitefull enuy of that mutable goddesse. Seeing therefore the world to come vpon him still, and no soure sorrowes intermingled with his sweet delights, in a wearinesse of his continual blessednesse, he imbarkeed himselfe and sailed into the deep, where wilfully he flung into the sea a ring from his finger, together with the said stone so pretious, set therein. But see what ensued! A mighty fish euen made as a man would say for the king,

A king, chanced to swallow it down as if it had bin some bait, which being afterwards caught by fishers, & thought to be of an extraordinary bignes, was brought as a present into the king's palace, and so sent into the kitchen, where the cook found within the belly thereof the foresaid ring of his lords & masters. Oh the subtiltie of she Fortune, who all this while twisted the cord that another day should hang Polycrates! This stone (as it is wel known) was a Sardonyx: & if we may beleue it, the very same it is, which at Rome is shewed in the temple of Concord, where Augustus the Emperesse dedicated it as an oblation, enshafed within a golden horne: and verily if it be the same, one of the least Sardonyches it is among many other there which be preferred before it.

Next to this stone of Polycrates, there goeth a royall name of the gem which Pyrrhus K. of Albanie had, him I mean, who warred against the Romans: for (by report) an Agath he had, wherein a man might see the nine Muses, and Apollo with his harpe, liuely represented, not by art and mans hand, but euen naturally imprinted: for the veins and streaks of the stone were so disposed, that a man might distinguish euery one of the Muses asunder, & ech one distinguished by their feuerall marks and ornaments. Setting aside these two gems aboue-named, we do not read in authors of any great reckoning made of such Jewels; vnlesse wee speake of one Ismenias a famous minstrell, who had the name to weare many of them ordinarily about him, and those very gay and glittering: and surely his vanity that way was such, that there goeth a notable tale of him; for meeting vpon a time in a merchants hand with an Emerald in the Island Cyprus, wherein ladie Amyone was engrauen, and wherof the price was at first held at six deniers in gold, he made no more ado but caused the mony to be paid presently: but the merchant being a man of some conscience, and thinking indeed the price to high, gaue two of them back again vnto Ismenias: whereat being ill apaid, I veshrew you, (qd. he) for this bating of the mony hath much empai- red the worth of the stone. This Ismenias (as it is thought) was the first who brought vp the order that all such musicians and minstrels as him selfe, should be known by their gems, and esteemed skilfull in that art according as they were set out therewith more or lesse. And in very truth, Dioscorides a great minstrell, who liued in those daies with him, vsed likewise to be in his change and variety of pretious stones, because he would not seeme any way to come behind Ismenias. There was a third also as vaine as the best, a musician in that age named Nicomachus, who loued to haue a number of gems about him, but no iudgement hee had in the world to chuse them. These examples which offer themselves by fortune to me in the beginning of this my booke, may serue to pull downe their plumes who stand so much vpon the vaine ostentation of these stones, when they shal see how all the priue they take herein, smelleth but of the vain humor of some odd minstrels. But to return againe to Polycrates his gem, at this day it is to be seen within the temple of Concord, whole & sound. And not only in the time of Ismenias, but also many yeres after, it should seem that Emeraude were wont to be cut and engrauen. This opinion also may be confirmed by the act & edit of K. Alexander the Great, which forbad expressly, That no man should be so hardy as to engraue his image in pretious stone, but Pyrgoteles, who (no doubt) was simply the best in that art. After him, Apollonides and Cronius were of great fame: & principally one Dioscorides, who counterfeited in stone the liuely forme of Augustus Caesar, the which serued the Emperors his successors as a signet to seale withall. Sylla Dictator was wont alwaies to signe with a seale representing K. Inzurtha, tied & bound as he was yeeled to him. We read in Chronicles also, that a certaine Spaniard of Intercatia, whose father Scipio Emilianus slew in single fight, vsed afterwards no other seale but that which represented this combat: whereupon grew this merry conceit of Stilo Praconinus, who asked, What this Spaniard would haue done if his father had killed Scipio? Augustus late Emperour of worthy memory, vsed at the beginning to seale with the image Sphinx vpon his signet: and verily in the casket of his mothers Jewels, two of these he found so like one to the other, that one could not be known and discerned from the other: & as he was wont to weare one of them about him wher soeuer he went, so in his absence (during the ciuile wars which he leuied against M. Antonius) his friends who managed his affairs at Rome, signed with the other Sphinx, al those letters & edicts which passed in his name, for the performance of some demands which those times did require. And from hence it came, that those who receiued any such letters or edicts, containing some matter of difficulty, were wont pleasantly and merrily to say, That the said Sphinx came euer with some hard riddle or other that could not be expounded. Moreover, the frog, wherewith Maccenas vsed to seale, was alwaies terrible to those who receiued any letters signed therewith; for euermore they were sure

Fff

vpon

upon the receipt of it to make some paiment of impost or taxes leuied vpon them. But *Augustus Cæsar*, to auoid the obloquie that arose by his *Sphinx*, gaue ouer sealing therewith, and signed euer after with the image of *K. Alexander the Great*.

As touching a cabinet or case for many rings and such jewels, which they call by a forreine Greeke name *Dactyliotheca*, the first that euer was known to haue any such at Rome, was *Scæurus*, whose mother *Sylla* the Dictator married: and for a long time there was no other besides; vntill *Pompeius* the Great met with the jewel-casket of *K. Mithridates*, which among many other rich oblations, he presented in the Capitoll; and by the relation of *M. Varro* and other approued authors of that time, it was much preferred before that of *Scæurus*: in imitation of whole example, *Cæsar* Dictator consecrated in the temple of *Venus Genetrix*, six such like cabinets or caskets of rings and jewels: and *Marcellus* sonne to *Octavia*, dedicated one in the temple Palatine of *Apollo*. Finally, this is to be obserued, that the said victorie of *Pompeius* which he achieved ouer *K. Mithridates*, set mens teeth at Rome a watering after pearls and precious stones; like as the conquests obtained by *L. Scipio* and *Cn. Marius*, brought them into loue with siluer plate curiously enchased and imbossed: also with rich hangings of cloth of gold, siluer, and tissue, together with beds and tables of brasse; euen as the brassen statues and vessels of Corinthian brasse, and the curious painted tables, came in request vpon the victorie that *L. Mummius* gained ouer *Achæa*.

CHAP. II.

¶ Of Iems and precious stones that *Pompeius* shewed in his triumph. The nature of Crystall, and the medicinable properties thereof: the sumptuous and superfluous expences in vessels made of it. The first inuention of Cassidoine vessels, and the excesse that way: the nature and properties of those Cassidoins. And what vntruths the writers in old time haue deliuered as touching Amber.

TO the end that it may appeare more evidently, what the triumph of *Pompeius* wrought in this respect, I will put downe word for word what I find vpon record in the registers that beare witness of the acts which passed during those triumphs. In the third triumph therefore which was decreed vnto him (for that he had scoured the seas of pyrats and rousers, reduced *Natalia* and the kingdome of *Pontus* vnder the dominion of the Romans, defeated kings and nations, according as I haue declared in the seuenth booke of this my history) he entred Rome the last day of September, in the yere when *M. Piso*, and *M. Messala* were Consuls, on which day there was carried before him in shew, a chesse-boord with all the men, and the same boord was made of two precious stones, and yet it was 2. foot broad and 4 foot long: and left any man should doubt hereof and thinke it incredible, considering no jems at this day come neare thereto in bignesse, know he, That in this triumph hee shewed a golden Moone weighing thirtie pounds, three dining-tables also of gold, other vessell likewise of masse gold and precious stones as much as would garnish nine cup-boords; three images of beaten gold representing *Minerva*, *Mars* and *Apollo*; coronets made of stones to the number of three and thirtie; a mountaine made of gold foure square, wherein a man might see red deare, Lyons, fruit-trees of all sorts, and the whole mountaine inuironed and compassed all about with a vine of gold: moreover, an oratorie or closet consisting of pearle, in the top or louver whereof there was a clocke or horologe: Hee caused also to be borne before him in a pompous shew, his owne image made of pearles, the pourtraiture (I say) of that *Cn. Pompeius*, whom regall maiestie and ornaments would haue better becomed; and that good face and venerable visage so highly honoured among all nations, was now all of pearles, as if that manly countenance and seueritie of his had bene vanquished, and was now all of pearles, as if that manly countenance and seueritie of his had bene vanquished, and riotous excesse and superfluitie had triumphed ouer him, rather than hee ouer it. O *Pompeius*, and *Magnus*, how could this title and surname *Le-grand*, haue continued among those nations, if thou hadst in thy first victorie triumphed after this manner! What, *Magnus*, were there no means else but to seek out pearles (things so prodigal, superfluous, and deuised for women, and which it had not becomed *Pompeius* once to weare about him) and therewith to pourtray and counterfeit thy manly visage! And was this the way indeed to haue thy selfe seeme precious: doth not that pourtraiture come nearer vnto thee and resemble thy person farre liker, which

A which thou didst cause to be erected vpon the top of the Pirænean hils? Certes, a foule shame and ignominious reproch it was to be shewed in this manner; nay, to say more truly, a wonderfull prodegie it was, prelagging the heauie ire of the gods; for so men were to beleue and evidently to conceiue thereby, that euen then and so long before, the head of *Pompeius* made of orient pearle, euen the richest of the Leuant, should be so presented without a bodie. But setting this aside, how manlike was all the rest of his triumph, and how answerable to himselfe? For first and foremost, giuen freely by him vnto the chamber of the citie, there were a thousand talents, secondly, vpon his leutenants and treasures of the campe, who had performed so good seruice in defending the sea-coasts, he bestowed two thousand Sestertia apiece: thirdly to euery fouldiour who accompanied him in that voiage, he allowed fiftie Sestertia. Well, this superfluitie yet of *Pompeius* triumph, serued in some sort to excuse *Caius Caligula* the Emperour, and to make his delicacie and excesse to be more tollerable, who ouer and besides all other effeminate tricks and womanly deuises, whereof he was full, vsed to draw vpon his legs little buskins or slippers made of pearle: *Pompeius* precedent (I say) in some measure justified *Nero* the Emperour, who made of rich and faire great pearles, the scepters and maces, the visors also and maskes which players vsed vpon the stage, yea and the very bed-roumes which went with him as hee trauielled by the way: So as wee seeme now to haue lost that vantage and right which we had to find fault with drinking-cups enriched with pearles, yea and much other household stuffe and implements garnished therewith, since that wherefoeuer we go from one end of the house to the other, we seeme to passe through rings, or such jewels at leastwise which were wont to beautifie our fingers onely: for is there any superfluitie els, but in regard and comparision hereof it may seeme more tollerable and lesse offensive? But to return vnto the triumph of *Pompeius*: this victorie of his, brought into Rome first our cups and other vessels of Cassidoine; and *Pompeius* himselfe was the first who that very day of his triumph presented vnto *Iupiter Capitolinus*, six such cups: and presently from that time forward men also began to haue a mind vnto them, in cupboards, counting-tables, yea and in vessell for the kitchen, and to serue vp meat in: and verily, from day to day the excesse herein hath so far ouergrowne, that one great Cassidoine cup hath been sold for * fourescore sesterces, but a faire and large one it was, and would containe well three sextars [*id est*, halfe a wine gallon.] There are not many yeres past, since that a noble man who had been Consul of Rome, vsed to drinke out of this cup; and notwithstanding that in pledging vpon a time a lady whom hee fancied, hee bit out a piece of the brim thereof (which her sweet lips touched) yet this iniurie done to it, rather made it more esteemed and valued at a higher price, neither is there at this day a cup of Cassidoine more pretious or dearer than the same. But as touching other excesse of this personage, and namely how much hee consumed and deuoured in superfluities of this kind, a may may estimate by the multitude of such Cassidoine vessell found in his cabinet after his death, which *Nero Domitius* tooke away perforce from his children: and in truth, such a number there were of them, that being set out to the shew, they were sufficient to furnish and take vp a peculiar theatre, which of purpose hee caused to be made beyond the Tyber in the gardens there: and enough it was for *Nero* to behold the said theatre replenished with people at the plaies which hee exhibited there in honor of his wife the Empreffe *Poppæa*, after one child-bed of hers, where among other musicians, hee sung voluntary vpon the stage before the plaies began. I saw him there my selfe to make shew of many broken pieces of one cup which hee caused to be gathered together full charily, as I take it, to exhibit a spectacle wherat the world should lament and cry out in detestation of Fortune, no lesse ywis, than if they had bin the bones and reliques of king *Alexander the Great* his corps to be laid solemnly in his sepulchre; and herein hee pleased himselfe not a little. *Titus Petronius*, late Consul of Rome, when hee lay at the point of death, called for a faire broad-mouthed cup of Cassidoine, which had cost him beforetime three hundred thousand sesterces, and presently brake it in pieces in hatred and despight of *Nero*, for feare lest the same prince might haue seized vpon it after his decease, and therewith furnished his own boord. But *Nero* himselfe (as it became an Emperour indeed) went beyond all others in this kind of excesse, who bought one * drinking cup that stood him in three hundred thousand sesterces; a memorable matter (no doubt) that an Emperour, a father and patron of his country, should drinke in a cup so deare. But before I proceed any farther, it is to be noted, that we haue these rich Cassidoine vessels [called in Latine *Murrhina*] from out of the Leuant: for found they be in many places of the East parts, and those otherwise not greatly renowned,

* That is to say, columns & pillars, wherein were engrauen the names of cities and nations subdued by him in those voyages into Spaine.

* *Ostroginta sesteris*: where you must thinke that be vses *sestertium* in the neuter gender, which is a thousand sesteris: for otherwise 80 sesterces come but to 20 deniers Roman; and that is about 12 sh. 6 d. sterling: too much vnder the price of such a Jewell: and yet some read for *sestertius*, [*talentis*] and that is as much about the proportion, for one talent was esteemed at 50000 sesterces.

* The value of 6 talents. * *Trecentis sestertiis capidus*: I suspect this place; for hee should haue inserted a greater sum than that before of *T. Petronius*: or else *capidus* is a smaller piece than *Tullia*; & that should not seeme, if it be deuised a *capidus*, & so called for the capriciousness; but rather of the ears, whereby a man may take hold thereof.

Rhosne & Poth both meet in one, and discharge themselves together into the said Venice gulfe, G
they shew their grosse ignorance in Cosmography, and description of the world; and therefore
they would be rather pardoned if they knew not what Amber was. Those that write more mo-
destly than the rest (and yet can lie as well as the best) beare vs in hand, that about the sides of
the foresaid Venice gulfe or Adriatick sea, vpon rockes otherwise inaccessible, there grow trees
which yerely at the rising of the Dogstar do yeeld forth this Amber in manner of a gum. *Theophrastus*
contrariwise affirmes, that Amber is digged out of the ground. As for *Chares*, he saith,
that *Phaeton* died in *Aethyopia* neere vnto the temple of *Iupiter Ammon*, which is the reason of a
chappell there wherein hee is shrined, as also of an oracle much renowned; in which quarters
(quoth he) amber is engendred. *Philemon* would make vs beleue, that Amber is minerall, and
that within *Scythia* in two places it is gotten forth of the earth, in the one it is found white & H
of the colour of wax, which they call *Electrum*; in the other it is reddish or tawny, and that is
named *Sualternicum*. *Demostratus* calls Amber, *Lyncurion*, for that it commeth of the vrine of
the wild beast named *Onces* or *Lynces*: the which is distinct in colour, for that which proceedeth
from the male is reddish and of a fiery colour; the other which passeth from the female, is
more weake in colour, and enclineth rather to whitish. Some giue it the name *Langurium*, and
make report of certaine beasts in *Italie* named *Languria*. *Zenothemis* tearmeth the same beasts
Langas, and by his saying, they liue about the Po. *Sudines* talketh of a tree in *Liguria*, which
should beare this Amber: of whose opinion also was *Atetodorus*. *Sotacus* was verily perswaded,
that it run downe from certaine trees in *Brittaine*, and those he thereupon called *Electrides*.
Pytheas affirmeth, that in *Almaine* there is the arme of the Ocean called *Mentonomon*, along I
which there inhabit certaine people named *Gutti*, for the space of six thousand stadia; from
which within one daies sailing, there lyeth an Island called *Abalus*, into which at euery Spring
tide, there is cast vp by the waters of the sea at a high water, a great quantitie of Amber; and it
is taken for nothing else but a certain excrement congealed and hardened, which the sea in that
season purgeth and sendeth away. The inhabitants of those parts (saith he) vse it for their ordi-
nary fewell to burne, and doe sell it to the Saxons and other Dutch, their next neighbours. *Ti-*
mans accorded with him, saue only that he would haue the said Island to be called *Baltia*. *Phi-*
lemon was of this mind, that Amber would neuer flame if it were set on fire. *Niceas* would haue
vs conceiue, that it should be a certaine iuice or humour proceeding (I wot not how) from the
raies of the Sun, and yet he maketh a reason thereof, imagining that the said beames should be K
exceeding hot toward the Sun-setting, which rebounding from the earth, leaue behind them a
certain fatty sweate in that part of the Ocean; and the same afterwards is cast vp with tides into
the Sea-shore and sands of the Germanes. He writeth also, that in *Aegypt* it is engendred after
that manner, where it is called *Sacal*: as also among the Indians, who make more account of it
than of frankincense. Semblably in *Syria*, the women (saith hee) make wherues of it for their
spindles, where they vse to call it *Harpax*, because it will catch vp leaues, tresses, & fringes hang-
ing to cloaths. *Theophrastus* reporteth, that the ocean casteth vp amber at tides, to the capes of
the *Pyrenæan* hills: which *Xenocrates* also beleued, who is the last that hath written of Amber,
and such like. There is at this day liuing, *Asarubas*, who hath reported, that neere vnto the Atlan- L
ticke sea there is the lake *Cephissis*, which the Moors call *Electrum*, and the same being chased
and heat throughly by the Sun, casteth vp from the mud thereof, Amber, floating aloft vpon the
water. *Mnesias* maketh report of a place in *Affrike* named *Cicyone*, as also of the riuer *Cra-*
this, which floreth out of a lough and runneth into the sea; in which lake or lough, there liue
certain kinds of foule which he names *Meleagrides* and *Penelopes*: herein amber is engendred
(by his saying) after the same manner as before I shewed in the lake *Electris*. *Theomemes* saith,
that neere vnto the great *Syrtis* where the hort-yard and garden of the *Hesperides* lieth, a man
shall find, that amber falleth out of the said garden into a lake beneath, and then the virgins at-
tending vpon that place, come ordinarily to gather it. *Ctesias* affirmeth, that among the Indians
there is a riuer called *Hypobarus*, (which word signifies as much, as bearing all good vessels) it
runneth out of the North and falleth into the East sea, neere vnto a wild mountain, full of trees M
that beare amber. He addes moreover & saith, that those trees are called *Aphytaora*, by which
denomination is meant, most delightfom sweetnes. *Mithridates* writeth, that toward the coast of
Germany there lies an Island, and the same named *Oferista*, replenished with woods of Cedar
trees yeelding Amber, which runs from them into rocks. *Xenocrates* is of opinion, That Amber
was

* or Banomina.

* esibur, some read esibur, & in Summer.

* or rather Electris, as appareth a little after.

A was called in *Italy* not only *Succinum*, but also *Thicum*: whereas the *Scythians* name it *Sacri-*
um (for there also it is engendred) also he saith, that others think it is engendred in *Numidia*.
But I wonder most at *Sophocles* the Tragicall Poet (a man who wrote his Poësies, with so graue
and lofty a stile, and liued besides in so good reputation; being otherwise borne at *Athens*, and
descended from a noble house, employed also in the managing of state affaires, as who had the
charge & conduct of an army) that he should go beyond all others in fabulous reports, as touch-
ing Amber: for he sticketh not to auouch, That beyond *India* it proceedeth from the tears that
fall from the eies of the birds *Meleagrides*, wailing & weeping for the death of *Meleager*, Who
would not maruell, that either himselfe should be of that beliefe, or hope to persuaade others to
his opinion? For what child is there to be found so simple and ignorant, who will beleue, that
birds should keep their times to shed tears euery yere so duly, and especially so great drops and
in such quantitie, sufficient to engender Amber in that abundance? Besides, what congruitie is
there, that birds should depart as far as to the Indians and beyond, for hope to mourn and lament the
death of *Meleager* when he died in *Greece*? What should a man say to this? Are there not ma-
ny more as goodly tales as these, which Poets haue sent abroad into the world? And their pro-
fession of Poëtry, that is to say, of faining and deuising fables, may in some sort excuse them. But
that any man should seriously and by way of history deliuer such stufte, as touching a thing to
rise and common, brought in euery day in abundance by merchants which were ynough to con-
uince such impudent lies, is a meere mockerie of the world in the highest degree; a contempt
offered vnto all men, and argueth an habit of lying, and an impunitie of that vice intollerable.

CHAP. III.

¶ Of the true originall and generation of Amber. The sundry kinds thereof. The
excesse and superfluitie of people, as touching Amber. The medicinable
properties that it affordeth. Of *Lyncurium*, and the ver-
ties that it hath in Physicke.

B Vt to leaue Poets with their tales, and to speake resolutely and with knowledge, of Amber,
knowne it is for certain, That engendered it is in certaine Islands of the Ocean Septentrio-
D nall, where it beareth vpon the coasts of *Germany*: and the *Almanes* call it *Glessum*. And
in very truth, in that voyage by sea which *Germanicus Caesar* made into those parts, our country-
men named one of those Islands *Glesaria*, by reason of the Amber there found; which Island
the *Barbarians* call *Austraia*. It is engendred then in certaine trees, resembling *Pines* in some
sort, and issueth forth from the marrow of them, like as gum in *Cherrie* trees, and rosin in *Pines*.
And verily, these trees are so full of this liquor, that it swelleth & breaketh forth in abundance:
which afterwards either congealeth with the cold, or thickeneth by the heat of Autumn. Now
if at any time the sea rise by any extraordinary tide, and catch any of it away out of the Islands,
then verily it is cast a shore vpon the coast of *Germany*, where it is so apt to roule, that it seemeth
(as it were) to hang and fettle lightly vpon the sands, whereby it is the more easily gotten.
E And for that our ancestors heretofore in old time beleued that it was the iuice of a tree, they
called it therefore in Latine *Succinum*. That it comes from trees of a Pine kind, may appeare
by this, That if a man rub it, he shall find the smel of Pine-wood: also, for that when it burneth,
the flame, and fume (both) resembleth that of Torch-wood. The *Germanes* make great traffick
thereof, and bring it into *Pannonia*, and so from thence vnto vs, through our prouinces [of *Istria*
and *Venice*]; for from *Pannonia*, the *Venetians* first (who confine next vpon the marches there-
of, and whom the *Greekes* call *Heneti*) receiued it by way of merchandise in the maritime port
townes along the *Adriatick* sea, and so by that means brought it into name and request: which
ordinary trafficke may be the reason which gaue occasion to the foresaid tale that runs of the
Po and the *Poplars* about it, that should weep Amber. And euen at this day the country dames
F of *Lumbardie*, and those parts beyond the Po, vse to weare faire carkanets & collers of Amber-
beads to adorne themselves especially, and in some sort for the health also of their bodies: for
perswaded they are, that it withstands the inflammation of the *Amygdals* & other accidents
of the throat and chawes: for that the people of that country are subject to *poghes vnder their
throat, about those fleshy parts neere vnto it, by reason of sundry kinds of waters which breed
those

* For the perspicuitie and brightness like vnto glasse.

* This disease is called *Bronchocoele* or *Hernia gutturis*, ordinary in *Sauoy* and those parts about *Geneyra*.

those infirmities. The foresaid coast of Germany is almost six hundred miles from Carnuntum in Pannonia, and yet of late daies much frequented by merchants from all quarters. Certes, a Gentleman of Rome discouered those parts, by occasion that he was sent thither by commission from *Julianus* (who had the charge vnder *Nero* for furnishing of the solemne plaies and fights of sword-fencers) to buy vp good store of amber. This gentleman I say surueied diligently all those coasts, & saw the maner of the whole traffick for that commodity, yea & brought into Rome such plenty thereof, that the great nets and cordage (which for defence of the outstading and open gallerie within the Theatre were opposed against the wild beasts, there to be baited and to fight) were buttoned & set out with Amber; the armour likewise, the bieres, & other furniture for burial of those fencers which should happen there to be killed, yea, & in one word, all the apparel and prouision for one day to the setting out of those pastimes and disports, stood most of Amber. The greatest piece of Amber that he brought ouer, weighed 13 pounds. Moreover, it is held for certain, That it is to be found among the Indians. *Archelaus*, who sometime reigned as king in Cappadocia, writeth, That from thence it is brought rude and vnclen, with pieces of bark sticking within it: but the way to scoure and polliish it, is to teeth it in the greafe of a sow that suckleth pigs. That it doth destil and drop at the first very clear & liquid, it is euident by this argument, for that a man may see diuers things within, to wit, Pismires, Gnats, and Lizards, which no doubt were entangled and stuck within it when it was green and fresh, and so remained enclosed within as it waxed harder. Many kinds there be of amber. The white is most redolent and finest best: neither that, nor yet those pieces which are coloured like wax, be of any price. The high coloured Amber, namely that which is of a deepe yellow enclining to red, is much more esteemed, and the rather if it be cleare and transparant, provided alwaies that the glittering thereof be not too ardent. Commendable it is in Amber, and sheweth it to be rich, if it represent fire in some sort: but it must not be too too fiery. But the excellent Amber is that which is called *Falernum*, for the colour which it carrieth, resembling the wine *Falernum*: and the same is cleare and transparant, with a gay lustre that pleaseth & contenteth the eie very well. And yet some there be, who delight more in that Amber which looks with a mild yellow like to boiled and clarified hony. But this I am to giue you to vnderstand, That there may be giuen vnto Amber what tincture or colour a man will: but commonly they vse therto the suet of Kids and the root of Orchanet: and no maruaile, since that some haue deuised also to enrich it with a purple die. To come vnto the properties that Amber hath, if it be well rubbed and chaufed between the fingers, the potentiall facultie that lies within, is set on work, and brought into actual operation, whereby you shall see it to draw chaffe strawes, dry leaues, yea, and thin rinds of the Linden or Tillet tree, after the same sort as the loadstone draweth yron. Moreover, take the shauings scraped from Amber, and put them into lamp-oile, they will burne and maintaine light both longer and also more cleare than weekes or matches made of the very tire and best of flax. As touching the estimation that our delicats and wantons make thereof: Some there be, who for their pleasure will giue more for a puppet or image made of Amber to the likenes and proportion of man or woman, be it neuer so little, than for the liuely and lusty body indeed of a tall man and valiant souldior. But what should I say to such? Certainly they deserue to be well chastised for their peruers iudgment, & one rebuke is not sufficient. Yet can I hold better with them who take pleasure in other things, & me thinks they haue some reason therof: for Corinth vessel, there is good cause that a man should set his mind therupon, in regard of the singular temper of the brasse, with some proportion of siluer and gold: in pieces of mettall ingrauen, enchaufed and embossed, the curious art and the witty deuise seen vpon the worke may well rauish the spirit of the buyer, and draw him on to giue a round price: Touching the cups made of *Cassidonia* and *Crysal*, I haue shewed already, wherein lies their grace, and what may enamour a chappman and cause him to bid well and offer frankly for them: Faire pearles and goodly vniones are commended, for that our braue dames enrich their borders therewith, and set out the attire of their heads: gems and pretious stones adorne and beautifie our fingers: in sum, there is no superfluitie that we haue, but grounded it is either vpon some colourable vse that wee may pretend, or els vpon some gallant shew that it makes: As for this Amber, I see nothing in the world to commend it; only it is a mind that folk haue to take affection to it, they know not wherfore, euen of a delicat and foolish wantonnesse. And in truth, *Nero Domitius*, among many other fooleries and gauds wherein he shewed what a monster he was in his life, proceeded so far, that he made

A made a sonnet in praise of the hair of the Empresse *Poppa* his wife, which he compared to *Ambre*, and as I remember, in one staffe of his dittie he rearm'd them *Succina*, i. *Ambre*: and from that time our dainty dames and fine ladies haue begun to set their mind vpon this colour, and haue placed it in the third ranke of rich tincture: whereby we may see there is no superfluitie and disorder in the world, but it hath a pretence or cloake of some pretious name or other. And yet I will not disgrace *Ambre* too much: for why? there is some good vse thereof in Physicke. But I must tell you againe, our women regard not that one whit; that is not it wherfore they take so great a liking to *Ambre*. True it is that a collar of *Ambre* beads worne about the neck of yong infants, is a singular preseruatiue to them against secret poyson, & a countercharme for witchcraft and forerie. *Callistratus* saith, That such collars are very good for all ages, and namely to preferue as many as weare them against fantasticall illusions and frights that driue folke out of their wits: yea and *Ambre*, whether it be taken in drinke, or hung about one, cures the difficulty of voiding vrin. This *Callistratus* brought in a new name to distinguish yellow *Ambre* from the rest, calling it *Chryseletrum*, which is as much to say as gold *Ambre*. And in very truth, this *Ambre* is of a most louely and beautifull colour in a morning. This property it hath besides by it selfe, that it will catch fire exceeding quickly, for if it be neer it, you shall see it will soon be of a light fire. He saith of this yellow *Ambre*, that if it be worn about the neck in a collar, it cures leauers, and healeth the diseases of the mouth, throat, and jawes: reduced into powder and tempered with hony and oile of roses, it is soueraign for the infirmities of the ears. Stamped together with the best *Attick* hony, it makes a singular eie-salue for to help a dim sight: puluerized, and the powder thereof taken simply alone, or els drunk in water with masticke, is soueraign for the maladies of the stomacke. Furthermore, *Ambre* is very proper to falsifie many pretious stones which are commended for their perspicuity and transparent clearenesse, but specially to counterfeit *Amethysts*, by reason that I haue already said, it is capable of any tincture that a man would giue it. The froward peeuishnes of some Authors who haue written of *Lyncurium*, enforceth me to speak of it immediatly after *Ambre*: for say that it be not *Electrum* or *Ambre*, as some would haue it, yet they stand stiffely in this, that it is a pretious stone; many they hold, that it commeth from the vrine of an *Once*, by reason that this wild beast so soon as it hath pissed, couereth it with earth, vpon a spight and enuie to man, that he should haue no good therby. They affirme moreover, That the *Once* stone or *Lyncurium* is of the same colour that *Ambre* D ardent which resembleth the fire, & that it serueth well to be engrauen: neither by their saying doth it catch at leaues only and strawes, but thin plates also of brasse and yron: and of this opinion was *Dimocles* and *Theophrastus*. For mine own part I hold all to be mee re vntruths: neither do I think, that in our age there hath been a man who euer saw any pretious stone of that name. Whateuer also is written as touching the vertues medicinable of *Lyncurium*, I take them to be no better than fables, namely, that if it be giuen in drinke, it will send out the stone of the bladder: if it be drunk in wine, it will cure the jaundise presently, or if it be but carried about one, it will do the deed: but ynough of such fantasticall dreames and lying vanities, and time it is now to treat of those pretious stones, wherof there is no doubt made at all, and to begin with those that by all mens confession are most rich and of highest price. In which discourse I wil not prosecute E this theame only, but also (for to aduance the knowledge of posterity in those things that may profit this life) I meane erst toones to haue a sling at Magicians for their abominable lies and monstrous vanities, for in nothing so much haue they ouerpassed themselves as in the reports of gems & pretious stones, exceeding the tearms and limits of Physick, whiles vnder a color of faire and pleasing medicines, they hold vs with a tale of their prodigious effects and incredible;

CHAP. IIII.

¶ Of Diamants and their sundry kinds. Their vertues and properties medicinable. Of Pearles.

F THE Diamant carrieth the greatest price, not only among pretious stones, but also aboue all things els in the world: neither was it knowne for a long time what a Diamant was, vnlesse it were by some kings and princes, and those but very few. The only stone it is that we find in mines of mettall. Very seldom it is, and thought a miracle to meet with a diamant in a veine of gold, & yet it seemes as though it should grow nowhere but in gold. The writers of antient time

eyes, looking opposit into the sea: but they glittered and pierced so deep into the water, that the Tunies vpon that coast were affraid therat, & fled from the nets and other instruments that the fishers laid to take them withall: who maruelled a long time at this strange accident: but in the end knowing what the matter was, they changed the eies of the foresaid Lion, and remoued the Emeralds. But requisit it is that I should set down the imperfections & defaults of Emeralds, for that a may may so easily be deceived and beguiled in the choise of them: First therefore all Emeralds be subject to some blemishes, and yet as we obserue in men, they haue their particular defects by themselves, according to the nation where they be found, for those of Cyprus haue not an vniforme verdure, but you shal see in one and the same stone a mixture (as it were) of diuerse greens, more or lesse in fundry parts: neither keep they euer that rich Greene after one tenour, which we see in the Scythian Emeralds.ouer and besides, in some you shall meet with a cloud or shadow running between, which doth impeach the cleare color: neither is the same commendable, if it be ouer bright. These faults are the cause that Emeralds are distinguished by diuers names and kinds: for some be darke, and those be called blind: others be thicke, without any clearenesse or perspicuity at all. And some againe are discommended and reiected for diuers little clouds, which also are different for the shade aforesaid: for this little cloud wherof I speak, is a fault in whitenesse, when as in viewing of an Emerald it looketh not green all through, but either the eyesight meeteth with some white in the way, or else at leastwise in the bottom. And thus much as touching the faults in colour. But in the very body and substance of the Emerald there be others obserued, to wit, when there appear either hairy streaks, or congealed specks resembling cornes of salt, or els spots of lead. Next to the Cyprian Emeralds, there is reckoning made of the Aethyopian, which as king *Tuba* mine aouthour doth report, are found in Aethyopia, from Coptos in Egypt three daies journey: These be of a chearefull and liuely green, but hardly shal you find any of them clear, pure, and of one colour. Among these, *Democritus* raungeth the Hermionian Emeralds and the Persian: of which, the former seeme to swell out as if they were embossed and fattie withall: the Persian are not transparent, & yet of a pleasant Greene and vniforme, contenting the eyesight well enough, though it cannot pierce and enter into them; and much like they be to the glowing eies of cats & panthers, for we may perceiue them to glitter and shine, and yet they be nor translucent. These Emeralds in the Sun lose their lustre and become dim, but in the shade they shine gallantly, yea, and cast from them their beautifull raies farther than any other. And yet the general fault in al these, is this, if they shew the color either of gall or the skie; likewise if in the Sun they glitter and shine cleare, but yet appear not green: These imperfections are perceived ordinarily and most of all in the Atticke Emeralds, found in siluer mines at a place called Thoricos, yet are not these so grosse and fattie as others, and alwaies they seeme more beautifull afar off than neer at hand: these are subiect ordinarily to the fault called Plumbago, that is to say, in the Sun they looke with a leaden hew: Moreouer, this peculiar quality they haue by themselves, that some of them wear & decay with age, in so much as by little and little their liuely green decaith; and besides, in the Sun they lose their lustre. After the Atticke Emeralds, those of Media be accounted the greenest, and otherwhiles they resemble the green Saphire. These seem to be full of waues, and to containe within them diuers shapcs and figures of many things, as for example, poppie heads, birds, wings, and finnes, *locks of haire, and such like. Such Emeralds as are not found naturally Greene, may be made better and receiue their perfection, by washing them in wine & oile. In one word, there is not a greater Emerald to be found than those of Media. As touching Carchedonian Emeralds, I wot not wel whether they be now out of request & knowledge, since their mines of brasse haue failed them; and yet were they alwaies (at their best) the smallest of all others, and bare the lowest price: the same were brittle & easie to be broken, their color also was not settled but vncertain & changeable, resembling for all the world the Greene feathers in Peacocks tails, or the downe of Pigeons neckes, as a man held and turned them one way or other they shined more or lesse, being otherwise of themselves full of veines and skales. A speciall fault there was, wherto these Emeralds were subiect, which lapidaries called Sarcicon, that is to say, a certain carnosity or fleshinnesse incident vnto gems. Gathered they were in a certaine mountaine neere vnto Carchedon, which thereupon was named Smaragdites. K. *Tuba* hath left in writing, That the Emerald called Cholos, serued the Arabians much in their buildings: for to adorn and beautifie their houses, they were wont to enclose & set the same in the wals like as the white marble, which the Egyptians

* Capillorum,
not capillorum

Agyptian name Alabastrites. He reporteth moreouer, that there be many other Emeralds neere by, taken forth of the mountain Taygetus in Laconia; and those therefore be named Laconick, and much like they are to those of Media. He speaketh likewise of others in Sicilie. Reckoned there is in the ranke of Emeralds, a certain gem brought from Persia, named Tanos; howbeit of an vnpleasant green it is, and foule within: as also the stone Chalcosmaragdos, that comes out of the Isle Cyprus, which hath in it certain veins of brasse that trouble the green colour. *Theophrastus* reporteth, that he hath read in the books and records of the Egyptians, That a king of Babylon sent as a present to one of their Kings, one entire Emerald foure cubits long and three broad. Also, that there had bin within the temple of *Iupiter* among them, an Obeliske made of foure Emeralds, which obelisk notwithstanding was forty cubits long, & caried in bredth four cubits in some places, and two in others. He addeth moreouer, that while he wrot his historie, there was at Tyros within the temple of *Hercules*, a pillar standing of one Emerald, vnlesse haply it were some bastard Emerald, for such (quoth he) are found, and namely in Cyprus there was seen naturally growing a stone, whereof the one halfe was a plaine Emerald, the other a Iasper, as if the humor had not bin fully transformed and conuerted into an Emerald. *Apion* the Grammarian, surnamed * Plistonices, wrot not long before, who hath left recorded, That there remained still within the labyrinth of Egypt, the gyant-like image of their god *Serapis* nine cubits tall, and of one entire Emerald.

* Contentious, or Vicious.

Moreouer, many are of opinion, that Berils are of the same nature that the Emerald, or at leastwise very like: from India they come as from their native place, for seldome are they to be found elswhere: lapidaries by their art and cunning know how to cut them into six angles, and to polish them smooth; for otherwise their lustre, which is but sad, would be dull and dead indeed, vnlesse it were quickned and reuiued by the repercussion of these angles: for be they polished neuter so much any other way, yet haue they not that liuely glosse which those six faces giue them. Of these Beryls those are best esteemed which carry a sea-water Greene, and resemble the greenesse of the sea when it is cleare. Next to them are those called Chrysoberylli: these be somewhat paler, and their lustre tendeth to the colour of gold. A third kind there is approaching neere to this, but that it is more pale (howsoeuer some do think it is no kind of Beril, but a gem by it self) and this they call Chrysoprasos. In a fourth degree are placed the Berils named Hyacinthizontes; because they incline somewhat to the Iacinth. And in a fift such as are much of a sky colour, whereupon they are named Aeroides. After them be the Beryls Cerini, for that they seem like wax: then the Oleagini, that is to say, of an oile colour. And in the last place be the Crystalline, which are white, and come very neere to crystals. All the sort of these Beryl stones haue these faults, to wit, white hairy streaks or lines in them, yea and other filthy ordure; being of themselves without these imperfections apt to shed their colour, which soon fadeth. The Indians take a wonderfull pleasure in long Beryls, and commend them for the only stones & gems in the world, as if they cared not to be set in gold, but chose rather to be worn without it: and in truth in that regard their maner is to bore holes through them, and then to file them vp into chains and collars with haire of elephants: howbeit when they meet with some excellent Beryls indeed, which are come to their absolute goodnesse and perfection, they think it not good to pierce such, but presently they rip them with gold, that is to say, they serue to their heads certain knobs in maner of bosses which comprehend and inclose the same. And in very truth, they delight to cut their Berils into long rolls or pillastres in manner of cylindres, rather than after the maner of other gems, because their principal grace and commendation lies in their length. Some are of opinion, that the Beryl groweth naturally cornered and with many faces; and they hold those Beryls to be richest, which being bored through along, haue their white pith taken forth, for to giue them a better lustre of gold put vnto them; by the reuerberation wherof the ouermuch perspicuity of the stone may seem more corpulent and in some sort corrected. Over and above the faults already noted, subiect they are also to those imperfections which be incident to the Emeralds, yea and besides to certain specks called Pterygia. It is thought, that Beryls be found likewise in these parts of the world, to wit, about the kingdom of Pontus. As for the Indians, after that crystal was once found out, they deuised to sophisticate and falsifie other gems therewith, but Beryls especially.

Ggg

CHAP.

Of the pretious stone Opalus, and all the sundry kindes. The faults in them, and the means to try which be good. Also diuers sorts of other gems and pretious stones.

THe stones called Opales differ little or nothing otherwhile from Beryls, and yet the same sometimes are nothing at all like them, neither is there a gem that they will giue place to, vnlesse it be the Emeraud: India is the only mother of them: lapidaries therefore & those who haue written books of pretious stones, haue giuen vnto them the name and glory of greatest price; but especially for the difficultie in finding them out and chusing them, which is inestimable: for in the Opal you shall see the burning fire of the Carbuncle or Ruby, the glorious purple of the Amethyst, the Greene sea of the Emeraud, and all glittering together, mixed after an incredible manner. Some Opals cary such a resplendant lustre with them, that they are able to match the brauest and richest colours of painters; others represent the flaming fire of brimstone, yea and the bright blaze of burning oile. The Opal is ordinarily as big as a filbert Nut. And here comes to my mind an historie among vs as touching the Opal, worth remembrance: for there is at this day to be seene one of these Opals, for the which gem *Marcus Antonius* proscribed and outlawed one *Nonius* a Senator of Rome, the sonne of that *Struma Nonius* (at whom the stomack of *Catullus* the Poet did rise so much, seeing him as he did, sit in a stately chaire of Ivory called *Curulis*) and grandfather to that *Servilius Nonianus* whom I my selfe haue seene Consul. Now the said Senator when he was driuen to fly vpon this proscription, took no more of all the goods which he had, but onely a ring wherein this Opall was set, which (as it is well known) had bin valued sometime at 20000 Sesterces. But as the cruell and inordinate appetite of *Antony* (who for a Jewell onely outlawed and banished a Roman Senator) was wonderfull on the one side, so the peeuishnesse and contumacie of *Nonius* was as strange on the other side, who was so far in loue with that gem which cost him his proscription, and rather than to part with it suffered himselfe to be turned out of house and home: and yet the very wild beasts are better aduised than so, who are content to bite off those parts of their bodies and leaue them behinde for the hunters, seeing themselves in danger of death for them. In the Opal there be obserued also diuers blemishes and imperfections, as well as in other stones; namely, if the colour resemble the floure of that herb which is called *Heliotropium*, Turnsole: also if it look like crystal or haile, likewise if there be a spot comming between in maner of a grain or kernel of salt: if it be rough in handling, or if there be certain small prickles or spots represented to the eyes: neither is there any pretious stone that the Indians can counterfeit so well by the means of glasse, as this; inso much as hardly a man shall discerne the naturall Opal from the false, when they haue done withall. But the only triall is by the Sun, for if a man hold an Opal betwixt his thumbe and finger, against the beams of the Sun, if it be a counterfeit, he shall find those diuers colours which shewed therein, to run all into one and the same transparent colour, and so to rest in the body of the stone; whereas the brightness of the true Opaleftsoons changeth, and sends forth the lustre to and fro more and lesse, yea and the glittering of the light shineth also vpon the fingers. This gem, for the rare and incomparable beauty and grace that is in it, most Writers haue called *Pederos*.

There is also another kind of Opalos apart by it self, according to the opinion of some, who say it is called by the Indians *Saugenon*. It is said that there be Opals in Egypt and in Arabia, like as in the kingdom also of Pontus; but such of all other beare the lowest price. In *Gallia* likewise, and in the Isles *Thrasos* and *Cyprus*: for albeit they haue the lovely beautie of the Opalus, yet their lustre is nothing so liuely and lightsome, and seldome shall you meet with any of them that is not rugged: their chief colours stand much vpon brasse and purple; the fresh verdure of the green Emeraud is away, which the true Opal doth participate. This is generally held, that they are more commendable which be shadowed as it were with the colour of wine, than delaid with the clearenesse of water.

Thus far forth haue I written of gemmes and pretious stones which be esteemed principall and most rich, according to the decree generally set downe and pronounced by our nice and costly

A costly dames: for we may conclude vpon this point more certainly, going by their sentence, than grounding vpon the iudgement of men: for men (kings especially and great men) make the price of each gem according to their severall fancies. *Claudius Cesar* the Emperour made no reckoning of any but the Emeraud and the Sardonyx, and these ordinarily he wore vpon his fingers: but *Scipio Africanus* (as saith *Demostratus*) tooke a liking to the Sardonyx before him, and was the first Roman that vsed it; and euer since, this gem hath bin in great request at Rome: in regard of which credit, I will range it next to the Opall. In old time the Sardonyx, as may appeare by the very name, was taken for the pretious stone which seemed to be a * *Cornalline* * *Sardos* vpon white, that is to say, as if the ground vnder a mans naile were flesh, and both together transparent and cleare: and in very truth, the Sardonyx of India is such, according to *Ismenias*, *Demostratus*, *Zenathemis*, and *Sotacus*. As for these two last named, they verily doe name all the rest that are not cleare and shew not through them, Blind Sardonyches, such as the Arabian be; and these haue carried away the name of Onyx, without any mention or apparence at all of the *Sarda* or *Cornalline*: and these stones haue begun of late to be knowne and distinguished by their sundry colours; for some of them haue their ground blacke or much vpon azure and the naile of a mans hand: for it hath bin generally thought and beleueed, that such hath a tincture of white, and yet not without a shew of purple, as if the said white enclined to a vermilion or Amethyst. *Zenathemis* writeth, that these stones were not set by among the Indians; notwithstanding otherwise they were so large and bigg, as thereof they made ordinarily sword handles and dagger hafts: and no marvaile, for certaine it is, that in those parts land floods comming downe with a streame from the hills, haue discovered such and brought them to light. He saith also, that they were at the beginning highly accepted of in those parts; for that there is not in maner a stone engrauen, that will imprint the seale vpon wax cleanly without plucking the wax away, but it: and through our persuasions, the Indians also grew into a good conceit of them, and tooke pleasure in wearing the same: and verily, the common people of India make holes through them, and so weare them enfiled as carkans and collars about their neckes only. And hereupon it commeth, that those are taken to be Indian Sardonyches or Cornallines which be thus bored through. As for the Arabicke, excellent they are thought to be which are environed with a white circle, and the same very bright and most slender: neither doth this circle shine in the concavities or in the fall of the gem, but glittereth onely in the very bosses; and besides, the very ground thereof is most blacke. True it is, that the ground of these Sardons is found in the Indian stones to resemble wax or horne, yea within the white circle, in so much as there is a resemblance in some some sort of a rainbow, by means of certain cloudie vapors seeming to proceed from them: and verily the superficial face of this stone is redder than the shells of Lobsters. As touching those that be in colour like to hony or lees (for this is taken to be an imperfection and fault in Cornallines) they be all rejected; likewise if the white circle that girdeth it about spread and do not gather round and compact together: semblably, it is counted a great blemish in this gem, if it haue a veine of any other colour (but that which is naturall) growing out of square: for the nature of this stone is such, like as of all things els, not to abide any strange thing to disturb the feat thereof. There be also Armeniacke Cornallines, which in all respects else are to be liked, but for the pale circle that claspeth them.

By occasion of this stone Sardonyx, I am put in mind for the names sake, to write of the gem Onyx also: for notwithstanding there be a stone so called in *Carmania* (which is the *Cassidin*) yet there goeth also a gem vnder that name. *Sudines* saith, that the pretious stone Onyx hath a white in it resembling the naile of a mans finger: it hath likewise (quoth hee) the colour of a *Chrysolith*, otherwise called a *Topase*, of a *Cornalline* also, and a *Iasper*. *Zenathemis* affirmeth, that the Indian Onyx is of diuers and sundry colours; to wit, of a fiery red, a blacke, a * *horne* * *grey*; hauing also otherwhiles certaine white strakes or veines in fashion of eyes compassing it about; and in some of them you shall see white streaks or veins likewise to goe crosse and by as betwene them. *Sotacus* maketh mention moreover of an Arabian Onyx, but it differeth from others (saith hee) in this respect, That the Indian Onyx hath certaine sparkes in it, and the same environed and compassed about with white circles either single or many fold, farre otherwise than the Indian Sardonyx; for in the former, the white seemed to be pointed prickles, but in these they bee compleat circles. As for the Arabian Onyches, there bee found of them blacke, with white circles. *Satyrus* reporteth furthermore, that the Indian Onyx is fleshie; that in one

* Whereof haply they be called Cornallines.

Crimfen: which being chaufed in the fun, or otherwise fet in a heat by rubbing with the fingers, G will draw to them chaffe, strawes, threads, and leaues of paper. The common Grenat also of Carhedon or Carthage, is said to do as much, although it be inferior in price to the former. These Grenats are found vpon the hills amongst the Nasamons, and as the inhabitants are of opinion, are ingendred by means of a certaine diuine dew or heauenly showre: found they are twinkling against the moon-light, and especially when she is in the full. In times past, all the trafficke of the Grenats was at Carthage, whereupon they took the name of Carhedon. But *Archelaus* faith, that there be of them in Egypt also about the city Thebes; howbeit, such are brittle, full of veins, and like to a cole going out and ready to die. I find, that drinking cups haue been made of this stone, as also of the former, called *Lychnites*. Generally, all rubies be very hard for to be cut; and this ill quality they haue, That they neuer do seale cleane, but ordinarily plucke some H of the wax away with the signet: contrariwise, the Cornalline or Sarda, signeth very faire without any of the wax sticking to it: this Sarda giueth part of the name to the Sardonyx: the gem it selfe is very common, found first about * Sardis; but in truth, the principall is that which commeth from about Babylonia, out of certaine quarries of stone, where it was found sticking within another stone in manner of the heart. After this manner, it is said, that the Persians had sometime minerall Cornallines, but the mine now doth fade: howbeit, there be of them in many other places besides, to wit, in Paros and Affos. The Indians send vnto vs three severall kinds, to wit, the red, the fatty (called therupon Demium) & the third which ordinarily haue a ground of siluer-foile laid vnder them to giue a lustre. The Indian Sardes or Cornallines are transparent and carry a through light with them: the Arabian be more thicke: there be found of them also I about Egypt, but they haue commonly a ground of gold-foile. These gems likewise are distinguished by the sex, for the male haue a more bright and orient lustre; the female are not so resplendent, but shine as it were through a grosse & fatty matter. In old time, there was not a precious stone in greater request, than the Cornalline: & in truth, *Menander* & *Philemon* haue named this stone in their * Comedies, for a braue and proud gem: neither can we find a precious stone that maintaineth the lustre longer than it, against any humor wherein it is drenched; and yet oile is more contrary to it than any other liquor. To conclude, those that be of the colour of honeye, are rejected for nought; howbeit, if they resemble the colour of earthen pots, they be worse than those.

* A city, whereupon it tooke the name, and not of Sardinia the Isle, as some thinke.

* *Menander* & *Philemon* haue named this stone in their Comedies, for a braue and proud gem: neither can we find a precious stone that maintaineth the lustre longer than it, against any humor wherein it is drenched; and yet oile is more contrary to it than any other liquor.

CHAP. VIII.

¶ Of the * Topaze, and the sundry kinds of it. Of * Callais: and of other greene pretious stones not transparent.

* Some take it for our Chrysolith.

* It is thought to be our Turquois.

THE Topaze or Chrysolith, hath a singular green colour by it selfe, for which it is esteemed very rich; and when it was first found, it surpassed all others in price: they were discovered first in an Isle of Arabia called Chiris, wherein certaine rousers (Troglydites) being newly landed, after they had bin driuen thither by tempest and vrged with famine, began to feed vpon herbs and dig for roots, and by that meanes met with the Topaze stone: This is the opinion of *Archelaus*. But *K. Iuba* reporteth, that there is an Island within the red sea called Topazas, distant L from the continent 300 stadia, the which is oftentimes so mistie, that sailers haue much ado to find it, whereupon it tooke that name: for in the Troglydites language (faith he) Topazin is as much to say, as to search or seek for a thing. It is said, that the first that tooke a liking vnto the stone, was queene *Bernice* the mother of *Ptolome* the second, and that by the meanes of *Philemon* (lieutenant generall to her son in those countie) who presented one of them to the said queen. Of which Chrysolit, *Ptolomeus Philadelphus* K. of Egypt, caused the statue of his wife *Arfinoe* to be made, 4 cubits long; and in the honour of the said queene his wife, dedicated it in a chappell named the Golden temple. The moderne writers do report, that there be found of these Chrysolits about Alabastrum a towne in Thebais, a prouince in high Egypt; and two kinds they make thereof, to wit, *Praefoides*, and *Chrysopteros*: which later commeth neare to that golden Berill M called *Chrysoprasson*, for that the colour thereof resemblith fully the iuice of Porret; and of all precious stones it is the largest: this property it hath aboue all other gems, That only it comes vnder the file to be polished for noble men; whereas all other be scoured by the grindstones coming out of Naxos. This stone will weare with vsage.

This

A This stone in regard of colour may be accompanied with the Turquois called Gallais, for a certain green it hath inclining to yellow. It is found beyond the farthest parts of India among the inhabitants of the mountaine Caucasus, to wit, the Phicarians and Adates; they grow vnto a very great bignesse, but the same is fistulous and full of filth. The purest and richest of this kind be those of Carmania. But in both countries they be found in ycie clifffes hardly accessible, where you shall see them bearing out after the manner of bosses like vnto eies: they stick to those crags & rocks so lightly, that a man would say that saw them, how they grew not naturally out of the rocke, but were onely set too by mans hand. And for that the place where they doe grow, is so steep that a horseman is not able to ride vnto them, and because the people of that country be loth to climb so high with their feet, being otherwise acquainted ordinarily to the horseback, besides, in regard of the danger in venturing to climb for them, therefore they reach them a far off with slings, and so drue them down, with all the hard mosse about them: and in very deed, a commodity this is of great reuenue, & besides, the rich men know not the like jewell to weare about their necks. By a collar or chaine of these Turquoises, men are judged wealthy more or lesse: and this is the glory that they take from their childe hood, to be able to say, that thus many Turquoises they haue pulled and cast downe by that manner of slinging. And yet in the practise of this feat, all sped not alike; for some you shall haue to throw downe many faire Turquoises at the first sling; and many for it again who weary their armes and course after them, & yet cannot get one Turquois. This (I say) is the maner of chasing or hunting Turquoises: and when they be gotten, they must come into the lapidaries hands to be cut and formed to what fashion you will: and in truth they be otherwise brittle and easie to be wrought vpon. The best Turquois is that which approacheth nearest to the grasse green of an Emerald, howbeit, all the grace that they haue, seems to come from outward help: being set in gold, they looke most beautifull, neither is there a precious stone that becommeth gold better. The fairer that a Turquoise is, the sooner looseth it the colour by oile, ointment, or wine: contrariwise, the baser that they be, the better do they hold their own and maintain their lustre. Neither shall you meet with any precious stone more easie to be falsified and counterfeited with glasse, than a Turquoise. Lastly, some writers affirme, That they be found in Arabia, within the nest of certain birds called *Melacoryphi*, which is as much to say as blacke-cops.

As touching green stones, there be many more kinds: but of the baser sort we reckon one of a Porret colour, which we call *Prasius*, and the first kind of it is all green; whereas the second hath vpon the green, certaine red spots like blood, which cause it to seem vnpleasant to the eie, and rough in hand: the third is greene, but yet parted with three white strakes.

The stone *Chrysoprassus*, i. the sea water or Horehound green, is preferred before the other: in some sort it resemblith the green iuice of a Leek, but it declineth somewhat from the Topaze, as if it were between it and gold. Some of these are so great and big, that there be drinking cups made thereof, after the fashion of boats: but pilastres or round staues in manner of cylindres or rolls, are very quickly framed of such stones. These be found among the Indians: like as another stone, which is called * Nilios: A weak lustre it hath, and will not long continue, for looke but a while wisely vpon it, you shall perceiue it soone to fade. *Sudines* faith, That there be of them E found in Syverus, a riuer that passeth through the countrey of Attica: in colour it resemblith a smokie Topaze, or otherwiles that of a hony colour. *K. Iuba* reporteth, That it is bred in *Aethyopia*, and namely about the bankes and sides of a riuer which we call Nilus, whereupon it commeth to be named Nilios.

There is a stone called *Molochites*, for that the greene colour which it hath, commeth neare vnto a Mallow, and is more dim than the rest whereof I haue spoken. Commended it is highly in signets to seale faire: and besides it is supposed to be by a naturall vertue that it hath, a countercharme to preserue little babes and infants from all witchcrafts and forceries.

A kind of Iasper likewise there is of a greene colour, and the same oftentimes is transparent: and although there be many other stones go beyond it in riches, yet it retaineth still the antient glory and honor that it had. A gem it is, common to many other countries: India yeeldeth it vnto vs like to an Emerald. That of Cyprus is very hard, and of a greyish fatty colour, betweene white and greene. The Persians send vs a Iasper like vnto the skie or aire, and thereupon it is called *Aerizusa*: and such a one is that which commeth from the Caspian hills. The Iasper about the riuer *Thermoodon* is blew as Azure. In Phrygia you shall haue it purple: in Cappadocia

* Thought to be the Almain Chrysolit.

Cappadocia partly purple and partly blew, but no kind of lustre hath it at all. Out of Amisus, a City in Pontus, we haue Iaspers brought, much like to the Indian: and the Iasper of Chalcedon is muddy and troubled. But it were better to set downe their degrees in goodnesse, rather than to stand vpon the countries from whence they are transported. The best Iasper then is that which standeth much vpon purple or Lac: the second is incarnat, or of a rose colour: the third resembleth the Emerald in greenesse. To euery one of these severall kindes, the Greekes haue imposed significant names. And in a fourth place the Greeks haue ranged another called Borea, like to the morning skie in the time of Autumne; and this may well be called Aerizusa. There is a Iasper in colour like to the Sardar, the Cornalline, as also resembling much the violets: there be as many more sorts behind, which I haue not touched, but subject they be al to blemishes, as namely being blew or like to Crystal or waterie steame. Last of all, we haue a Iasper called Terebinthizusa by the Greekes, but as I take it very vnproperly, as if it were compounded of many gems of one and the same kind; and therefore the better sort of such are inclosed within a circle of gold, yet so as they be open both aboue and beneath, neither is any thing but the edges only compassed with gold. The faults or imperfections of the Iasper be these, if the lustre indure not long, notwithstanding it glitter a far off; also if it shew a spot like vnto a graine of salt; besides all other which I haue already named in the rest. Moreover, Iaspers may be falsified by the meanes of glasse: and this is soone detected, namely, when they cast a reuerberation of their lustre outwardly, and hold it not within. To conclude with the stones called Sphragides, they are not much vnlike to the Iaspers. And this gift they haue aboue all the rest, that they make the best signets, and seale fairest.

CHAP. IX.

Sundry kinds of Iaspers.

Of diuers sorts of Iaspers, al the East part (by report) are most affected to that which is like the Emerald, and they carrie it ordinarily about them as a countercharme. The same if it be compassed round about with one white crosse line in the midst, is called Grammatias; if with many, Polygrammos. And hereby the way I can hold no longer, but my mind serues as; if with many, Polygrammos. And hereby the way I can hold no longer, but my mind serues me very well to challenge the Magitians, who haue giuen it out, That this stone is very good for those to haue about them who are to make some publick speech or solemne Oration to the people. Moreover, we haue a Iasper called Onychopuncta & Lasponyx, which seemeth to inclose a cloud within it, & in some sort to resemble the snow. This Iasper is fashioned like to a Star, and beset with diuers reddish points: a man that saw it, would say it were a kind of Megarian salt. There is besides a Iasper which seemeth as if it were infected with smoake, and this is called Capnias. Concerning the bignesse of the Iasper, I haue seene one of them nine inches long, which serued for to represent the visage of Nero the Emperour, standing ready armed with a cuirace.

As touching the precious stone Cyanos, I must speake of it apart, notwithstanding I haue of late mentioned and applied it to one of the names of the Iasper, to wit, that with the blew colour. The best Cyanos is that of Scythia; the next cometh from Cypros: and in the last place we are to reckon the Egyptian. This stone is very apt to be counterfeited, and especially by tincture: the inuention whereof is ascribed to a king of Egypt, who was highly honoured for begetting the first that gaue a colour to it. Distinguished these stones also are by the sex, for there be of them both male and also female. Otherwhiles you shall perceiue a certaine powder in them as it were of gold, and yet not like to that of Saphires: for the Saphire also glittereth with marks and pricks of gold. Saphires are likewise sometime blew: mixed also with purple, although that be very feldome: the best are among the Medes, yet in no place be they transparent. Moreover, they are vntoward for to be cut and engrauen, by reason that the lapidarie shall meet with certaine hard knots of Crystal comming here and there betweene. The blewest are thought to be the male.

Next after these, I am to range those stones that bee of a purple colour, and such as decline somewhat from them, and yet seem to depend of them: of which, I must place in the first ranke as principall, the Amethysts of India: and of them there bee found in a part of Arabia, which bordereth vpon Syria, and is called Petraea: also in Armenia the lesse, in Egypt, and in France: but

But the fondest and of most base account, be those of Thasos & Cyprus. The reason of the name Amethyst, is generally thought to be this, that notwithstanding it approach very neer to the colour of wine, yet before it thoroughly tast thereof, it turneth into a March Violet color: and that purple lustre which it hath, is not altogether fiery, but declineth in the end to the color of wine. There is not one of these Amethysts, but it is transparent with a violet colour. Easie they are al to be cut and engrauen. And as for the Indian Amethysts, they haue the full and rich colour of the Phoenicean purple die; and in truth, the diers wish that they may but giue a tincture answerable to it. Verily this purple colour is pleasing to the eie, neither doth it strike or pierce the sight so forcible as the Rubies do. In a second rank are to be ranged the Amethysts inclining to the Iacincts; the color of which stone the Indians call Sacon, like as the gem it selfe Sacodian. Now if the color be more weak and feeble, they call it Sapinos; and this Amethyst in a third degree is named Parantes in the marches of Arabia, which name it taketh of the people. The fourth kind resembleth the colour of wine. The fifth declines neer to Chrysell, saue only that toward the bottom thereof, it standeth of a certaine whitish purple: but this is nothing esteemed, for the excellent Amethyst indeed being held vp in the aire, ought to shine in manner of a Ruby, and to carry a certain purple lustre, mildly participating of the incarnat rose color. Such Amethysts as these some chuse rather to call Paderotes, like as a kind of Opale; others, Anterotes: many giue them the name of Venus gems, for the great grace that they haue, & decent louelineesse which they seem to shew both in fashion and colour, especially without forth. The Magitian, as vain herein as in all other things, seem to beare vs in hand that they haue a special vertue to withstand drunkennesse, wherupon they should be called Amethysts: neither stay they so, but tel vs, that if the name of the Moon and the Sun be engrauen in them and so worn about the neck hanging, either with the hairs of a Cynocephalus head, or els swallows feathers, they are a sueraigne remedy against charms and forceries that be practised, with poisoning. Nay they would make vs beleue that there is a way to vse them, which wil cause men to be gracious with princes who haue any negotiation with them, and that by the means thereof they shal find easie accesse to their presence, and fauor in their eies. Also, by their saying, they are of force to auert haile and such like distemperature of the weather, yea, and to turn away Locusts, so there bee a charm in manner of a praier said withall, the form whereof they also do prescribe & shew: and no maruall, for they haue promised the like of Emeralds, if there were inchaufed in them the forme either of Eagles, or the flies named Beetils. In setting down which toies and vanities, they shew well enough in what contempt they haue mankind, and how they are disposed to mocke the world.

It followeth now by good order to speake of the Iacincts, which, albeit they differ much from Amethysts in some respect, yet in lustre they approach very neere: and this is only the difference between them, that the braue violet colour, which in the Amethyst is full and rich, in the Iacinct is delaied and weaker. The Iacinct also at the first sight is pleasant and acceptable, but the louely beauty thereof vanissheth away before it haue giuen a man enough. And so far is it off from contenting the eie fully and satisfying the pleasure thereof, that it fades sooner than the dainty flour of that name, Hyacinthus, so quickly doth the lustre passe away, in manner before it come to the eie. Aethyopia furnissheth vs with Iacincts & Chrysolithes both, which are transparent and carry the colour of gold: howbeit those of India bee preferred before them; they of Baetiana likewise, if they be not spotted and flecked with diuers colors. The worst of all others, be the Arabian: for they be not only skewed in colour, but also foule and troubled: and look what radiant lustre they haue, interrupted it is with a cloud of spots: and if any chance to be clear otherwise, yet a man that looketh on them, would say they were full of their owne dust. The best are those, which being laid to gold, cause it to looke whitish in manner of silver, in comparison to them. Such as be cleare and transparent, Goldsmiths vse to set within a hoope of gold, so as they may be seen both beneath and aboue. The rest had need of a ground of Latton soile to giue them a lustre: howbeit, now adaies those that are not skilfull lapidaries haue taken vp a custome to call some Iacincts Chryselestri, which incline to the color of a base gold called Electrum; the which in a morning are more beautifull and glorious to the eie, than all the day after. Those Iacincts that come from Pontus, are knowne by their lightnesse: some of them be hard and of an Orange red; others be soft and foule. Ptochus mine author reports, That they be found in Spaine also, in that place where he saith they sink pits for to leuel water, and out of which the peasants doe take

* Of which name there is Opalus & the Amethyst.

take forth crystal. He affirmeth also, That he hath seen a *Chrysolith* of twelue pound weight. G Moreover, there be certain *Iacints* which haue a white veine comming between, and those are called *Leucochrysi*. And of this kind some be named *Capnia*, because they be smokie. You shall find of them like vnto glasse beads, and yet of a shining yellow in manner of *Saffron*. And verily false *Iacints* there be counterfeited by glasse so artificially, that a man shall hardly discern them by the eie: howbeit handle and feele them, you shall soone find the deceit; for the fine *Iacints* indeed are colder naturally than those that be counterfeited. Among these *Iacints*, I may range wel ynough those stones which are called *Melichrysi*, which shew as if cleare hony shone through gold. These we haue from *India*: but of all other they are most subiect to iniurie and will soonest breake. The same country yeeldeth also a gem called *Xystion*, whereof there is such plentie, that the very common people doweare them.

* Of which name there is Opalus & the Amethyst.

If we should speake of white stones, the principall of them all is the gem named *Pæderos*; And yet considering that vnder this name there passe other fair & beautiful stones (such a prerogative hath the word to signifie some excellencie of lounelines) there may be question made, how it can be properly vsed for one gem, or one colour; yet surely there is a kinde of precious stone by it selfe called *Pæderos*, and the same worth the looking on; and there seem to meet together a skie color, and the same in his manner greenish vpon a cleare and transparent *Crystal*: accompanied these be with a purple and a certain yellow and bright gold colour of *Muskadel*, and the same is alwaies the last colour that appeareth outwardly and giueth the lustre: and yet a man that beheld this stone, would say that the head thereof were crowned with a chaplet of purple; and as it appeareth to haue these colours confounded all together, so it seemeth as if euery one had a feuerall lustre by it selfe. A more pure and clearer gem there is not againe: comfortable to the head & pleasing to the eie. The best simply of this kind we haue from the *Indians*, who call it *Argenon*. In a second degree to it is that of *Ægypt*, where it is called *Senites*. Of a third sort there be in *Arabia*, but those are rough. Those of *Natalia* and the kingdome of *Pontus*, are not so radiant and quicke as the others: and yet from *Galatia*, *Thracia*, and *Cyprus*, we haue such as be more feeble than they. If you would know what faults be incident to these *Pæderotes* particularly: they cary otherwhiles a languishing lustre; troubled they be with vnatural colours; and generally subiect they are to all the defects and imperfections of others.

* Gira sole.

In the second place of white gems, is * *Asteria* to be counted: a wonderfull propertie it hath in Nature, for which it deserues to be chiefe; for that it keepeth enclosed within a certain light K in manner of the apple in the eie: which according as a man doth hold or turne, hee shall see how it will send and transfuse it from the owne place; one would thinke that it walked within and shifted from place to place. And the same, if it be opposed against the beames of the Sun, casteth forth bright and white raies of the owne, in manner of a starre, whereupon it tooke the name *Asterias*: and very hard it is to be engrauen. Those which come out of *India* be preferred before them of *Carmania*.

In like manner a white pretious stone there is called *Astrios*, approaching neer to *Crystal*: this is engendred among the *Indians* and along the coasts of *Pallene*: From the verie centre within, there shineth a kind of star in manner of a full Moone in the height of her brightnesse. Some giue this reason of the name, that being held against any stars, it receiueth from them a light and sendeth the same from it againe in manner of beames. And they hold that the best be in *Carmania*, and there is not another gem againe lesse subiect to blemishes and imperfections than it. As also that a worse kind thereof is called *Ceraunia*: and the worst of all other resembleth the blase or flame of lampes and candles.

As touching *Astroites*, many make great account of it: and such as haue written more diligently thereof, doe report, That *Zoroastres* hath highly commended it and told wonders thereof in art Magicke.

Sudines speaketh of another gem called *Astrobolos*, and saith it is like vnto a fish eie, and casteth forth white glittering raies against the Sunne.

Among white pretious stones may be reckoned that which they call *Ceraunia*, which is apt to receiue light and lustre both from Sunne and Moone and other starres. It selfe looketh like *Crystal* cleare, howbeit, the lustre that commeth from it seemeth to be of a blue *Azura* color: and *Carmania* is the natue place therof. *Zenathemis* confesseth, That it is a white gem, and hath within a starre-like fire, which seemeth to run too and fro and change place, according as a man turneth

turneth it. He affirmeth also, that the foresaid *Ceraunia* will become dul and duskie; which if they be foked for certain daies together in vineger and sal-nitre, will recouer their light and conceine a new fire in maner of a star, which will continue for so many months as they lay daies infused, & after that lose their lustre again. *Soracm* hath set down two kinds more of *Ceraunia*; to wit, the black and the red, saying, that they resemble halberds or ax heads. And by his saying, the black, such especially as be round withall, are endued with this vertue, that by the means of them cities may be forced, and whole naties at sea discomfited; and these (forsooth) hee called *Betuli*, whereas the long ones be properly named *Ceraunia*. It is said there is one more *Ceraunia* yet, but very geason it is; and hard to be found, which the *Parthian* Magitons set much store by, and they only can find it, for that it is no where to be had but in a place which hath bin shot with a thunderbolt.

Next after the *Ceraunia*, there is a stone named *Iris*: digged out of the ground it is in a certain Isle of the red sea, distant from the city *Berenice* 60 miles. For the most part it resembleth *Crystal*, which is the reason that some haue termed it the root of *Crystal*. But the cause why they call it *Iris* is, That if the beames of the Sun strike vpon it directly within house, it sendeth from it against the wals that be near, the very resemblance of a rainbow both in form and colour, and oftsoons it will change the same in much variety, to the great admiration of the beholders: For certain it is known, that six angles it hath in manner of *Crystal*; but they say that some of them haue their sides rugged, and the same vnequally angled, which if they be laid abroad against the Sun in the open aire, do scatter the beames of the Sun that light vpon them to & fro; also that others do yeeld a brightnesse from themselves, and thereby illuminat all that is about them. As for the diuers colours which they cast forth, it neuer hapneth but in a dark or shadowy place: whereby a man may know, that the varietie of colours is not in the stone *Iris*, but comes by the reterberation of the wals. The best *Iris* is that which represents the greatest circles vpon the wall, and those which be likest to rainbowed indeed. There is another gem called *Iris*, like to this in all respects, but that it is exceeding hard. *Horus* saith, that if it be calcined and pulverised, it is a singular remedie against the biting of *Ichneumones*: also, that naturally it is to be found in *Perfis*.

Much like in form and shape to *Iris*, but not of the same effect, is there another stone called *Zeros*: a man that sees it would take it to be a crystal, with a black strake parting it overthwart. D Thus hauing laid abroad the pretious stones & jewels which are distinguished by sundry kinds of principal colors, I wil proceed to the rest, and discourse of them alphabetically.

CHAP. X.

Of certaine gems digested in order according to the Alphabet.

The *Agat* was in old time of great estimation, but now it is in no request. Found it was first in *Sicily* neere to a riuer called likewise *Achates*, but afterwards in many other places. It exceeds in bignesse, and is full of varietie in colours, whereby it hath gotten many names; E for called it is *Phaëachates*, *Cerachates*, *Sardachates*, *Hæmachates*, *Leucachates*, and *Dendrachates*, as if the veins thereof resembled a little tree. As touching the *Agath*, called *Antachates*, as it burneth you shall haue it to smel like vnto *Myrrh*: Also there is an *Agath* of a reddish colour resembling coral, and thereupon called *Coralloachates*: and the same is beset with certain spots or drops of gold in manner of the *Saphyr*: of which kind there is passing great plentie in *Candy*, where they call it the holy or sacred *Agat*; for people are persuaded that it auaieth much against the sting of venomous spiders and scorpions: which propertie I could very well beleue to be in the *Sicilian* *Agaths*, for that so soone as *Scorpions* come within the aire and breath of the said prouince of *Sicilie*, as venomous as they be otherwise, they die thereupon. The *Agats* likewise found among the *Indians* haue the same operation, and besides doe represent many other miracles; for you shall find imprinted naturally in them the forme and proportion of riuers, woods, and laboring horses: a man shall see in them coaches and little *Chariots* or horse-litters, together with the furniture and ornaments belonging to horses. As for physicians, they make their grinding stones therof for fine pouders. And it is holden for a truth, that only to behold and looke vpon an *Agath*, is very comfortable for the eies. If they be but held

in the mouth, they quench and allay thirst. The Phrygian Agats haue no part of green in them. Those that be found about Thebes in Egypt are without red and white veins: howbeit, these also be effectually against scorpions. Of the same credit likewise are the Cyprian Agats. Some hold opinion, that the singular grace and commendation of an Agat, is to be clear and transparent like glasse. There be found of them in Thrace, & about the mountain Oeta, in the hill Parnassus, in Lesbos and Messene, and such haue floures imprinted in them like those which grow in the highwaies and paths by the fields: also in the Island of Rhodes. But the Magitians obserue diuers other sorts; and as for those that be like vnto a Lions skin, they haue the name to be powerfull against scorpions. In Persia they are perswaded, That a perfume of such Agaths turneth away tempests and all extraordinarie impressions of the aire, as also stayeth the violent streame and rage of riuers. But to know which be proper for this purpose, they vse to cast them into a cauldron of seething water; for if they coole the same, it is an argument they be right, but to be sure that they may do good, they must bee worne tied to the haire of a Lions mane: for as touching those Agates which seeme to haue the print of an Hyanes skin, the Magitians cannot abide them, as causing discord in an house. But they hold, That the Agath of one simple colour causeth those wrestlers to be inuincible who haue it about them. And a proof hereof they take by seething it in a pot full of oile, with diuers painters colours; for within one two houres after it hath siuered and boiled therein, it will bring them all to one entire colour of vermilion. Thus much of Achates or the Agath. The stone which is named Acopis resembleth Sal-Nitre: hollow and light it is in manner of the pumith stone, howbeit spotted with golden spots or drops in manner of starres. Seeth this gently in oile, and therewith anoint the body, it riddeeth away all wearinesse and lassitudes, if wee may beleue the Magitians. The stone Alabastrites is found about Alabastrum a city in Egypt, and Damasco in Syria, white of colour it is, and intermeddled with sundry colours. This beeing calcined with Sal-gem and reduced into powder, is said to correct a stinking breath and strong sauer of the teeth. In the gessiers of cocks there be found certaine stones, called thereupon Alestoriae, which in shew resemble Crystall, and be as big as beans. *Milo* that great Wrestler of Croton used to carry this stone about him, whereby he was inuincible in all the feats of strength or a stuitie that hee tried, as Magitians would seem to perswade vs. Andromadas is a stone of a bright colour like silver, and in manner of a Diamant, square, and alwayes growing in a table Lozenge-wise. The Magitians suppose, that it tooke that name of repressing the anger and furious violence of men. As touching Agyrodamas, whether it be the same or another stone, Authors haue not resolved. Antipathes is a stone all blacke, and nothing at all transparent. You shall find whether it bee a true stone or no by seething it in milke, for no sooner is it put in, but it causeth the milke to look like Myrrh. The Magitians would haue vs to thinke, That it is good against Witchcraft and eye-biting especially. Arabiea is passing like vnto Ivoire, and for Ivoire might it go, but that it is so hard, which bewraieith it to be a stone. It is thought, that as many as haue it about them shall finde ease of the paine of the sinues. The stone Aromatites is thought principally to grow in Arabia, and yet it is found in Egypt about Pyrae: but wheresoeuer it is to be had, a hard stone it is, in colour and smell both resembling Myrrhe: in which regard it is much vsed of queenes and great ladies. Asbestos is ingendred within the mountaines of Arcadia, and is of an iron gray colour. As for Aspilate, *Democritus* saith, that it is bred in Arabia, and of a fiery colour: which by his saying, ought to be tied with camels haire, and so hung fast about them that be troubled with the schirosities of the spleen: also (if he say true) it is found in the nest of certain Arabian birds. Another also of that name groweth there in the cape Leucopetra, but it is of a silver colour, and glittereth withall: excellent to be worne about one against the phantastickall feares and imaginations in the night season. The same *Democritus* saith, That in Persia, India, and the mountaine Ida, there is a stone found named Artizoë, glittering bright as silver, three fingers thicke, formed in manner of a Lentil, and of a pleasant and delectable sauer: The Sages of Persia neuer go about the election and ordering of a King, but they thinke it necessarie to haue it about them. As for the Augites, many be of opinion, that it is no other stone than Callais, to wit, the Turquois. Amphitane is a stone knowne by another name also, Chrysocolla: found it is in that part of India where the Pismires-Volant do take out gold; where it resembles gold, and is in fashion four-square. It is reported constantly, that it hath the same force naturally that the Loadstone hath, but that it draweth gold to it as well as iron. Aphrodisiae is partly white,

and

A and partly reddish. A syctos being once heat at the fire, will continue a seuen-night after hot: blacke it is and ponderous, hauing certaine veins that diuide it: it is thought to be good against cold. As touching *Aegyptilla*, *Iacchus* taketh it for a white stone, with a veine partly of a Sard or Cornalline, and partly blacke, passing through it ouerthwart: howbeit the common sort take *Aegyptilla* to be blew, with a black mote in the bottome.

As for the stone Balanites, there be two kinds thereof; to wit, of a greenish colour, and resembling Corinth brasse: the former commeth from Coptos, the other out of the region Troglodytica; and they haue a fierie vaine cutting them just in the mids. The same Coptos sendeth other stones to vs besides, to wit, those which be called Batrachitæ; the one like in colour to a frog, a second to * yvory, the third is of a blackish red. * Baptes, how soeuer otherwise it be soft and tender, yet an excellent odor it hath. The stone called Belus eie is white, and hath within it a black apple, the mids wherof a man shall see to glitter like gold: this stone for the singular beautie that it hath, is dedicated to *Belus* the most sacred god of the Assyrians. There is another stone named Belus, growing (as *Democritus* saith) about Arbelæ, to the bignesse of a wall-nut in manner and forme of glasse. As for Baroptenus or Baroptis, it is black, interlaced as it were with certain knots, both white and also of a sanguine red, after a strange and wonderfull manner. Botrytes is found sometime black, otherwhiles red, & like it is to a cluster of grapes when it beginneth first to knit. As for it which is more like to the hair of women, *Zoroastres* calleth it * Botrychites. * Bucardia resembleth an oxe heart, and is to be found onely about Babylon. Brotia is shapen in manner of a Tortoise head: it falleth with a crack of thunder (as it is thought) from heaven: and if we wil beleue it, quencheth the fire of lightning. Bolæ are found after a great storm or tempest, resembling a clod.

Cadmitis were the very same which they call Ostracitis, but that otherwhiles it is compassed about with certain blew bubbles. Callais comes very neere to the Saphir, but that it is whiter, and resembleth rather the water of the sea about the shore. Capnites (as some thinke) is a kind of stone by it selfe, beset with many wreaths, and those seeming to smoke, as I haue said already in due place: the naturall place of it is Cappadocia and Phrygia: in some sort it is like yvory. As touching Callainæ, it is commonly said, that they be found alwaies many joined together. Catrochites is a stone proper to the Island Corsica: in bignes it exceedeth ordinary precious stones: a wonderfull stone, if all be true that is reported thereof, and namely, That if a man lay his hand thereupon, it will hold it fast in manner of a glewie gum. Catopyrites groweth in Cappadocia. Cepites or Cepocapites, is a white stone, and the veins therein seem to meet together in knots; and so white and cleare withall, that it may serue as a mirrour to shew ones face. Ceramites in colour resembleth an earthen pot. As for Cinædia, they be found in the braine of a fish named Cinædus: white they be and of a long fashion, and of a wonderfull nature, if wee may beleue that which is reported of the euent which they signifie; and namely, that according as they be cleare or troubled in colour, they do preface either storms or calm at sea. Cerites is like to wax; and Circos, vnto wreaths or circles. Corfoides, is made in manner of a gray peruke of haire: Corallo-achates, vnto a Corall set with gold spots: Corallis, to Vermillion, and is ingendred in India and Syene. Craterites hath a colour betweene the Chrysolith and the base gold Elestrum, E of an exceeding hard substance. Crocallis doth represent a cherry. Cyssites is engendred about Coptos, and is of a white color: it seemeth as it were to be with childe, for something stirs and rattleth within the belly if it be shaken. Calcophonos is a blacke stone: if a man strike vpon it, he shall perceiue it to ring like a piece of brasse: and the Magitians would perswade those that play in Tragœdies to carry it about them continually. As for the stone Chelidonia, there be two sorts of it: in colour they do both resemble the Swallow, and of one side which is purple, you shall see black spots intermingled here and there among. Chelonia is no more but the very eie of an Indian Tortoise: of a most strange nature by the Magitians saying, and working great wonders, but they will lie most monstrously: for they would promise and assure vs, That after one hath well rinsed or washed his mouth with hony, and then lay it vpon the tongue, hee shall presently haue the spirit of prophetic, and be able to foretell of future things all a day long, either in the full or change of the Moon: but if this be practised in the wane of the Moon, he shall haue this gift but onely before the Sunne-rising: vpon other daies, namely while the moone is croissant, from six of the clock or sun-rising six houres after. Moreover, there be certaine stones called Chelonitides, because they be like to Tortoises, by which these Magitians would seeme

H h h

to

to tell vs by way of prophesie and reuelation, many things for to allay tempests and stormes: G but especially the stone of this kinde which hath golden drops or spots in it, if together with a flie called a beetle it be cast into a pan of seething water, it will auert tempests that approach. Chlorites is a stone of a grasse green colour, according as the name doth import, and by the saying of Magitians, it is found in the gesier of the bird called Motacilla or Wagtaile, yea and is ingendred together with the said bird. They giue direction (forsooth as their manner is) to inclose or inclose it with a piece of yron, and then it will doe wonders. Choaſpites taketh that name of the riuer Choaſpes, green it is and resplendent like burnished gold. Chryſolampis is found in Æthyopia; all the day long of a pale colour, but by night it glows in manner of a cole of fire. Chryſopis is so like to gold, as a man would take it for no other. The stones called Cepionides, grow in Æolis about Atarne, a little village now, but sometimes a great town: they haue H many colours, and be transparent; sometimes in manner of glasse, otherwhiles like Cryſtall or the Iasper: such also as be not cleare through, but foule and thick within, are notwithstanding so pure and neat without, that they will represent a man or womans viage as well as a mirroir or looking glasse.

D Daphnias is a stone, whereof Zoroastres writeth, and namely that it is good against the falling sicknesse. Diadochus is like to Berill. Diphris is of two kinds, the white and the black, the male and the female, wherein may be perceived very distinctly, those members that distinguish the sex, by reason of a certain line or vein of the stone. Dionysias is a blacke stone and hard withall, hauing certain red spots intermingled: if it be stamped in water, it giueth the tast of wine, and is thought to withstand drunkennesse. Draconites or Dracontia, is a stone ingendred in the brains I of serpents, but vlesse it be cut out whiles they be aliue, namely after their heads be chopt off, it neuer grows to the nature of a precious stone, for of an inbred malice and enuie that this creature hath to man, if perceiuing it selfe to languish and draw on toward death, it killeth the vertue of the said stone: and therefore they take these serpents whiles they be asleepe, and off with their heads. Sotacus (who wrote that he saw one of these stones in a kings hand) reports, that they who go to seek these stones vse to ride in a coach drawn with two steeds, and when they haue espied a dragon or serpent, cast in their way certain medicinable drugs to bring them asleepe, and so haue means and leisure to cut off their heads: white they are naturally & transparent, for impossible it is by any art to polish them, neither doth the lapidary lay his hand to them.

E Encardia is a precious stone, named also Cardisca: one sort there is of them, wherein a man K may perceiue the shape of an heart to beare out: a second likewise there is so called, of a greene colour, and the same doth represent also the forme of an heart: the third sheweth the heart only black, for all the rest is white. Enorchis is a faire white stone; the same being diuided, the fragments thereof do resemble a mans genetours, whereof it took that name. As touching Exhebenus the stone, Zoroastres saith, that it is most beautiful and white, and therewith goldsmiths vse to burnish and polish their gold. As for Eristalis, being of it self a white stone, seemes as a man holdeth it to wax red. Erotalos, which some call Amphicome, others Hieromnemom, is commended much by Democritus, for sundry experiments in prophesying and foretelling fortunes. Eumeces groweth in the Baſtrians country, like to a flint; being laied vnder a mans head lying asleep vpon his bed, it representeth by visions and dreams in the night all that hee is desirous to L know, euen as well as an oracle. As for Eumetres, the Assyrians call it the stone or gem of Belus the most sacred god among them, & whom they honor with greatest deuotion: as green it is as a leeke, and serueth very much in their superstitious inuocations, sacrifices, and exorcisms. Eupetalos hath foure colors, to wit, of azur, fire, vermilion, and an apple. Euros is like the stone of an oliue, chamfered in manner of winkle shels, but very white it is not. Eurotias seemeth to haue a certain mouldines that couers the black vnderneath. Eusebes seemeth to be that kind of stone whereof (by report) was made the seat in Hercules temple at Tyros, where the gods were wont to appear and shew themselves. Moreover, any precious stone is called Epimelas, when being of it selfe white, it is ouercast with a blacke colour aloft.

G The gem Galaxias, some call Galactites, like vnto those last before-named, but that it hath M certain veins either white or of a bloud color running between. As for Galactites indeed, it is as white as milk, and therupon it took that name. Many there be who call the same stone Leucas, Leucographias, & Synnephites, which if it be bruised yeeldeth a liquor resembling milk, both in color and tast; & in truth, it is said, that it breeds store of milke in nources that giue suck: also that

A that if it be hung about the necks of infants, it causeth saluation; but being held in the mouth, it melteth presently. Moreover, they say, that it hurteth memory and causeth obliuion: this stone cometh from the riuer Achelous. Some there be, who call that Emeraud Galactites, which seemeth as it were to be bound about with white veins. Galacticos is much like to Argypodamus, but that it is somewhat fouler: commonly they are found by two or three together. As for Gasidanus, we haue it from the Medians, in colour it resembleth blades of corne, and seemes beset here and there with floures: it groweth also about Arbelæ: this gem is said likewise to be * Haply out Bezoar, conceived with young, and by shaking to bewray and confesse a child within the wombe, and it doth conceiue euery three moneths. Glossi-petra resembleth a mans tongue, and groweth not vpon the ground, but in the eclipse of the Moone falleth from heauen, and is thought by the B magitians to be very necessary for pandors and those that court faire women; but we haue no reason to beleue it, considering what vaine promises they haue made otherwaies of it: for they beare vs in hand, that it doth appease winds. Gorgonia is nothing els but Coral: the name Gorgonia groweth vpon this occasion. That it turneth to be as hard as a stone: it assuageth the trouble of the sea and maketh it calme: the magitians also affirme, that it preferueth from lightning and terrible whirle winds. As vaine they be also in warranting so much of the hearbe Guniane, namely, that it will worke reuenge and punishment vpon our enemies.

The pretious stone Heliotropium, is found in Æthyopia, Affricke, and Cyprus: the ground H thereof is a deepe green in maner of a leeke, but the same is garnished with veins of bloud: the reason of the name Heliotropium is this, For that if it be throwne into a pale of water, it changeth the raies of the Sun by way of reuerberation into a bloudie colour, especially that which cometh out of Æthyopia: the same being without the water, doth represent the body of the Sun, like vnto a mirroir: and if there be an eclipse of the Sun, a man may perceiue easily in this stone how the moone goeth vnder it, and obscureth the light: but most impudent and palpable is the vanity of magitians in their reports of this stone; for they let not to say, that if a man carrie it about him, together with the herbe Heliotropium, and besides mumble certaine charmes or prayers, he shall goe inuisible. Semblably, Hephæstites is of the nature of a looking-glasse, for although it be reddish or of an orange colour, yet it sheweth ones face in it: the meanes to know this stone whether it be right or no, is this: in case being but into scalding water, it presently coolereth it; or if in the Sun it wil set on fire any dry wood or such like fewel: this stone is D found growing vpon the hill Corycus. Horminodes is a stone so called, in regard of the greene colour that it hath resembling the herbe Clarie; for otherwhiles it is white, and sometime againe blacke, yea and pale now and then; howbeit hooped about it is with a circle of golden colour. Hexecontalithos, for bignesse is but small, and yet for the number of colours that it hath, it got this name: found it is in the region of the Troglodytes. Hieracites changeth colour all whole alternatiuely by turns; it seemeth to be blackish among kites feathers. Hamnites resembleth the spawne of fishes: and yet some of them be found as it were composed of nitre, and otherwise it is exceeding hard. The pretious stone called Hammons-horne, is reckoned among the most sacred gems of Æthyopia: of a gold colour it is, and sheweth the forme of a rams horne: the magicians promise, that by the vertue of this stone, there will appeare dreames E in the night which represent things to come. Hormesion is thought to be one of the loueliest gems that a man can see, for a certaine fiery colour it hath, and the same spreadeth forth beams of gold, and alwaies carrieth with it in the edges a white and pleasant light. Hyenia took the name of the Hyens eie: found they are in them when they be assailed and killed: and if we may giue credit to Magitians words, if these stones be put vnder a mans tongue, hee shall presently prophesie of things to come. The bloud-stone Hematites is found in Æthyopia principally, & those be simply the best of al others, howbeit there are of them likewise in Arabia and Affrick: in colour it is like vnto bloud, and so called: a stone that I must not ouerpasse in silence, in regard of my promise that I made to reprove the vanities and illusions of these impudent & barbarous magicians who deceiue the world with their impostures: for Zacharias the Babylonian, F in those books which he wrote to king Mithridates, attributeth vnto gems all the destinies and fortunes that be incident vnto man: and particularly touching these bloud-stones, not contented to haue graced them with medicinable vertues respectiue to the eies and the liuer, he ordained it to be giuen vnto those for to haue about them, who carry any Petition to a king or great prince, for it would speed and further the suit: also in case of law matters it giueth good issue

and sentence on their side, yea and in wars, victory ouer enemies. There is another of that kinde, called by the Indians Henui, but the Greekes name it Xanthos: of a whitish colour it is vpon a ground of a yellow tawnie.

L The stones called Idæi, Dactyli, be found in Candy: of an yron colour they be, and resemble in forme the thumb of a mans hand. As touching Icterias, there be foure kinds thereof, to wit one like to a pale coloured bird called the Lariot; and therefore is thought to be good against the jaundise: a second there is of the same name, but more enclining to a swert color: the third resembleth a green leafe, broader than the former, weighing little or nothing, and is besides full of pale and wan veins: the fourth is of the same colour, but it hath blacke veins running too and fro. The stone called *Impiters* gem, is white, light, and tender. The stone *Indico* taketh name of those nations from whence it commeth; the colour outwardly is somewhat reddish, and if it be rubbed, there commeth from it a certain purple humor in manner of a sweat. There is another of that name, but it is white, and sheweth like vnto dust or powder. The same Indians haue another gem called *Ion*, for that it resembleth the colour of the March violet; but feldome shall a man see it with a fresh and gay blew indeed.

L The stone *Lepidores* doth represent skales of fishes in sundry colours. *Lesbias* taketh name of the Isle *Lesbos* the natieue place thereof: howbeit they are found in India likewise. *Leucophthalmos*, is otherwise reddish or tawnie, howbeit in that colour it carrieth the forme of an eie, both for white and blacke. *Leucopetalos* sheweth white in manner of snow, and yet the same is garnished with a lustre of gold. *Libanocrus* in colour resembleth frankincense, but a liquor or moisture it yeeldeth answerable to hony. *Limoniates* seemeth to be all one with the *Emeraud*. As touching the vneuous stone *Liparis*, I find this only written of it, That a stinke or perfume thereof fetcheth forth any venomous vermine. The stone *Lysimachus* is like vnto the marble of *Rhodes*, and hath in it certaine veines or streakes of gold: This stone must be polished vpon marble: and when all the superfluities be fetched off, it is found to grow narrow pointwise. *Leucochrysos* seemeth to be made of a *Chrysolith*, hauing white veins or streakes betweene.

N A gem there is called *Memnonia*, but I haue not read the description thereof. As for *Media*, it is a blacke stone, and found it was first by that famous *Medea*, of whom the Poets write so many fables, yet certaine veins it hath of a golden colour: a kind of sweat issueth from it yellow as saffron, and in tast much resembling wine. *Meconites* doth represent expressly, poppy heads. The stone *Mitras* we had from the Persians, and the mountains along the red sea: many colours it hath, and against the Sun it glittereth diuersly. *Meroctes* is green like vnto a lecke, and yet if you rub it, you shall see a humour come from it like to milke. The Indian stone *Morion* (which is most blacke and yet transparent) they call *Pramnion*: if it be intermingled with the fiery red of the Carbuncle or Rubie, they call it *Alexandrinum*; like as the Cyprian, *Morion*, which hath a shew of the *Sarda* or *Cornalline*: found there be of them in *Tyrus* and *Galatia*. *Xenocrates* reporteth, that vnder the *Alpes* also they be gathered. These be the gems that be fitted for to engrau the forme of any thing from a pattern. As for *Myrrhites*, it hath the colour of *Myrrhe*, and the forme of a fine pretious stone: it yeeldeth the smell of a sweet perfume or ointment, and being rubbed giueth a fauour also of *Nard*. As touching *Myrmecias*, it is blacke, and hath certain risings in it like to werts. *Myrsinites* in colour resembleth hony, and in odour the myrtle. *Mesoleucos* is a gem diuided iust in the mids with a white line: contrariwise, *Mesomelas*, when there is a blacke line cutther through any other colour in the midst.

N *Nasamonites* is in colour like to bloud, howbeit certaine blacke veins it hath. *Nebrites* is a stone consecrate to god *Bacchus*: it tooke that name of the resemblance which it hath to those skins of deere that he was wont to weare: there be others of the same kind, but blacke they are. The gem *Nympharena* keepeth the name of a city and nation in Persia, and it resembleth the teeth of a water-horse.

O *Orca* is the barbarous name of a certaine pretious stone, which is very pleasant vnto the eie: wherein concurre together blacke, yellow, Greene, and white. *Ombria*, which some call *Notia*, is said to fall from heauen in stormes, showers of raine, and lightening, after the manner of other stones, called thereupon *Ceraunia* and *Brontia*: and the like effects are attributed to it, as be reported of *Brontia*: and thus much moreouer, That so long as it lieth vpon the hearth of an altar, the * libaments will not burne that be offered thereupon. *Orites* is in forme round as a globe: some call it *Siderites*, it will abide the fire and feele no harme thereby. *Ostracias* or *Ostracites* is made

* As the haire growing in the forehead, and such things, whereof assay was giuen him to the fire.

made in manner of a shell, and is exceeding hard. A second kind there is of it resembling an *Agath*, but that an *Agath* in the polishing seemeth to looke greasily, which the *Ostracias* doth not. And the harder kind of this stone is of that power, that the fragments thereof will serue to engrau other gems. As for *Ostracites*, it took the name of an *Oystre* shell, which it doth represent. The Barbarians haue a pretious stone, which they call *Ophicardelos*; blacke of colour, and the same enclosed with two white lines or circles. As touching the stone *Obfidianus*, I haue written sufficiently in the book going next before: and yet there be certain gems of that name, and carrying the same color, not only in *Aethyopia* and *India*, but also in *Samnium*, as some are of opinion, yea, and in the coasts of the Spanish Ocean.

Panchrus, according to the name, seemeth to consist (in manner) of all colours. *Pangonius* is no longer than a mans finger: it differeth from *Cryfall* in this onely, that it hath more angles in number, whereupon it got the name. As for *Paneros*, what manner of stone it is *Metrodorus* hath not set down, howbeit he reciteth an elegant verse of queen *Timaris*, which together with the stone she consecrated to *Venus*: whereby is giuen to vnderstand, That by the meanes thereof she became fruitful and bare children: Some there be who call this gem *Pansebaston*. Now concerning the gems of *Pontus*, knowne by the name of *Ponticæ*, there be many sorts of them. One is full of stars, garnished with bloudy or blacke specks in maner of drops, and this is counted among the sacred stones: another in stead of starres hath strakes and lines onely of the same colours: and there be of them again which represent the forme of mountaines and vallies. The gem *Phloginos*, which is called likewise *Chrysites*, is found in *Aegypt*, and is likened vnto the *Ostracias* of *Attica*. *Phenicites* tooke the name of the similitude that it hath to a *Date*. And *Phycites* was so named, because of the likenes it hath to the sea weed or lettuce, named *Phycos* in Greeke. *Perileucos* is a stone, focalled by occasion of a whitish lace that seemeth to go from the mouth of the gem downe to the very bottome. The gems *Pæantides*, which some name *Gemonides*, are said to conceiue and to bring forth other little stones: but a singular vertue they haue to help women that be in trauell of child-birth. Such be found in *Macedonie*, neere vnto the monument or sepulchre of *Tiresias*, and that which they bring forth, seemeth like vnto water growne to be congealed into yce.

The Sunnes gem is white, and after the manner of the Sunne, whose name it beareth, it casteth forth shining raies round about on euery side. *Sagda* is a stone, which the Chaldeans find sticking to ships, and they say it is Greene as *Porrets* or *Leekes*. *Samothracia* the Island yeelds vs a pretious stone of the owne name, blacke of colour, light in hand, and like to [rotten] wood. As for *Saurites*, it is found (by report) in the belly of a green Lizard, slit open with the edge of a cane or reed. *Selenites* is a pretious stone, white & transparent, yeelding from it a yellow lustre in manner of hony, and representing within it the proportion of the Moone, according as the growth toward to the full, or decreaseth in the wane against the change: This admirable stone is thought to be found in *Arabia*. *Siderites* is much like to yron: and supposed it is, That if it be brought among them that are at some variance or controuersie already in law, it will breed discord and maintain dissention still. Of this *Siderites* is made another stone, which is engendred in *Aethyopia*, called *Sideropceilos*, for the sundry spots therein. *Spongites* is like vnto a sponge, euen as it carrieth a name respectiue vnto it, *Synodontites* commeth from the braine of certain fishes called *Synodontes*. The stones *Syrtae* be found in the shore of the *Syrtes* in *Barbary*, yea, and in *Lucania*, shining with the colour mixt of saffron and hony, but within they containe certaine starres, which haue but a dim and dusky light. The stone *Syringites* is hollow throughout in manner of a pipe, and is like vnto a straw betweene two joints.

Trichrus that commeth out of *Affricke* is blacke, howbeit if it be rubbed it yeeldeth three kinds of humours from it; to wit, from the root or bottome blacke, out of the mids like bloud, and in the head white. *Telirrhizos* is of an ash colour or reddish, and yet the bottome thereof is a louely & slightly white. *Telicardios* is much esteemed in the realme of Persia, where it is engendred: in colour it resembleth the heart, and they call it there in their language, a *Spor*. The stone *Thracia* is of three kinds; the first green, the second more pale, and the third full of spots of bloud. *Tephritis*, although otherwise it be of the color of ashes, yet it represents a new Moon croissant and tipped with hornes. *Tecolythus* seemeth like to the stone or kernill of an Olive: It is not raunged in the number of pretious stones, but whoeuer licketh thereof, shall find, That it will breake the stone and expell it. The stone called *Venus* haire, is exceeding black and shining; how-

how it maketh a shew of red haire sprinkled among.

Veientana is a gem proper vnto Italie, found about Veij, a citie in Tuscane: this stone is blacke and crossed through the middest with a white path.

Zantheries (as *Democritus* writeth) is found ordinarily in Media: in colour it resembleth base gold Eleotrum: and if a man doe stampe it in Date wine and Saffron together, it will relent in manner of wax, and cast a most sweet and pleasant smell. Zmilaces is a stone which the riuer Euphrates yeeldeth, like to the marble of Proconnesus, but that in the middest it hath a greenish colour. Finally, Zoronifios is engendered in the riuer Indus: commonly it is called the Magicians gem: more of it I find not written.

CHAP. XI.

¶ Of certaine pretious stones, taking their names from the members of mans body, from beasts also and other things.

BESIDES those gems comprehended vnder the Alphabet, there be more pretious stones also comprised after other sorts of distinction, according to diuers significant varieties: for some there be which bear the names of certain members of the body; as for example, Hepatites, of the liuer; Steatites, of the sundry sorts of fat, grease or tallow of each beast. Adad * Nephros is a stone worshipped among the Egyptians, so is Theudactylos also. As for Adad, hee is the chiefe god among the Assyrians. The stone Triophthalmos groweth together with the Onyx stone, and representeth three eies of a man together.

It taketh the name of the kidneys.

Hyopthalmos

There be gems take their names likewise of beasts, to wit, Carcinias of the colour which the sea-crab hath; Echites, of a Viper; Scorpites, either of the color or form of a Scorpion; Scarites, of the fish Scaurus; a Gilthead; Triglites, of the Barble; Agopthalmos, of a Goats eye, like as another, for the resemblance that it hath to the * eie of a swine. Geranites tooke name of a cranes color; euen as Hieracites of the Hawkes of Faucons color. A tites resembls the color of that Agle which hath a white taile. Myrmerites sheweth the forme of a Pismire creeping within the stone; so doth Cantharias, of Beetles. Lycophthalmos hath the resemblance of a Wolves eie, and consists of 4 colours; the outward parts are tawnie, enclining to a blood red, in the middest there is a black, enclosed within a white circle, as like to the said eie as possibly can be. The stone Toas is like to a Peacock, euen as the gem Chelonia to the Tortoise. In Hammo-chryfos there is a resemblance of sand, as if sand & gold were entermingled. Cenechrites is made like to the graine or seeds of Miller scattered here and there. Dryites hath a great affinity with the stock of a tree: and the same will burn after the maner of wood. Ciffites is white, and in that white shining seemeth to be clasped euery where with leaues of yvie. Narcissites likewise is distinguished and parted with veines of yvie. Cyamea is black, but being broken, it yeelds out of it a resemblance of a Beane. Pyren is so called by reason of an olive stone or keruill which it resembls: within this stone there appeare otherwhiles as it were fish bones. Chalazias as it carrieth the name of haile, so it representeth as well the color as the shape thereof; but as hard it is as the Diamant: It is reported also, that if it be put into the fire, yet it wil continue cold & not alter a whit. The fire stone Pyrites is verily black: but rub it with your finger, you shall find it to burne. Polyzonos is a black stone of it selfe; but many white fillets it hath about it. Astrapias is white or blue like Azur, yet from the middest thereof iher seeme to shoot raies of lightening. In the stone Phlegontis there appeare a burning flame within, and neuer commeth forth. In the Granat named Authracitis, there is a shew otherwhiles of sparkles running to & fro. Enhydros is euermore absolutely smooth and white, containing within a certain liquor that moueth too and fro if a man shake it, as he may perceiue in egges. Polytrix is a greene stone, bedecked with fine veines in manner of the haire of ones head: but (by report) it will make the haire to shed off as many as carry it about them. Of a Lions skin, Leontios beareth the name: like as Pardalios of a Panther. The golden color in the Topaze gaue it the name Chrysolith: so the grasse green of a Lecke was occasion of the name Chrysoprasos: and of hony was deuised the colour and name Melichrus, although there be many kinds of it. As for Melichloros it is of two colours, partly yellow, and partly resembling hony. Crocias is yellow as Saffron: and Polia sheweth a certaine greynesse in manner of Spart. As for Spartopolios the blacke, it sheweth like gristly veines to the other, but much harder. Rhodites took name of the Rose: Melites of the apple, the colour wher-

of it shews: Chalcites of brasse; and Sycites of a fig. I see no proportion or reason at all between the stone Borsycites and that name: this stone is blacke and branching, and the leaues are white, or red like blood; no more than I do in Gemites, which representeth (as it were) engrauen in the stone, white hands clasped one within another. As for Ananchitis, it is said, That spirits may be raised by it in the skill of Hydromantie: like as by Synochitis, the ghosts which are raised, may be kept about still. What should I speake of the white Dendritis, which if it be buried in the ground vnder a tree that is to be fallen, the edge of the axe that beweth it, will not turne or wax blunt. There be a number of other, and those in nature more prodigious than the rest: for which the Barbarians haue deuised strange names, professing to vs, that they were stones indeed. for mine owne part it shall suffice that I haue disproued their lies in these abouenamed.

CHAP. XII.

¶ Of new stones, and those naturall. Of such as be counterfeited and artificiall. Of diuers formes and shapes of gems.

HERE grow still precious stones vnlooked for euery day, that bee new and haue no names; such as that in Lampfacus, where one was found in the gold mines so faire and beautifull, that it was thought a present worth sending to K. Alexander the Great, as *Theophrastus* writeth. As touching the stones Cochlides, which now are most common, they seeme rather artificial than naturall: and verily it is said, That in Arabia there be found of them huge masses which are sodden in hony 7 daies and nights together continually; by which means, after that all the earthy and grosse refuse of this stone is taken away, the stone it selfe remaineth pure and fine: and then coming vnder the lapidaries hand, they be diuided into sundry veines, and reduced into drawne or inlaid worke of Marquetage, as he will himselfe. And herein is seen the cunning of the cutter, for that it is so vendible, & euery mans mony. In old time they were made of that bignesse, that the KK. of the East had their horses set out therewith, not only in their frontals, but also in the pendants of their caparisons. And verily, al other precious stones being decocted in hony, look faire and neat with a pleasant lustre: but principally the Coricks, which abhor all things els that are more eager than hony. Moreouer, this is to be noted, that our lapidaries haue a tearme for those stones which are of diuers colors, and they call them Physes, as if they had not another vsuall name for them: & this they do in the subtilty of their wit, to make them seem more wonderful by these strange words of art, as if they would vendit them for their very wonders of Natures worke: whereas indeed there be an infinit number of names, deuised al by the vain Greeks, who knew not how to make an end, which I purpose not to rehearse, and verily, after I had discoursed of the noble and rich stones, I contented my selfe in some sort to specifie those of a baser degree, such I mean as were more rare than others, & to distinguish them that were most worthy to be treated of. But this eftsoons would be remembered, that one & the selfe same stone changeth the name, according to the sundry spots, marks & werts that arise in them: according also to the manifold lines drawn in them, the diuers veins running between, and the variety of colors therein obserued. It remains now to set downe some generall obseruations indifferent to all sorts of gems, and that after the opinion of the best approoued and experienced authors in this kind. Any stones that be either hollow & sunk in, or bearing out in bosse or belly be nothing so good as those which cary an euen and leuell table. The long fashioned gems are most esteemed: next to them such as be formed like to lintil seed: after them those that be round in manner of a targuet: and as for such as be made with many faces & angled, they be of al other least accounted of. To discern a fine & true stone from a false and counterfeited, is very difficult, forasmuch as there is an inuention to transform true gems into the counterfeited of another kind. And in truth men haue deuised to make Sardonyxes by setting and glewing together the gems named Ceraunia, & that so artificially, that it is vnpossible to see therein mans hand: so hand-somely are couched, the black taken from this, the white from that, & the vermilion red from another, according as the richnes of the stone doth require, & all those in their kind most approved. Moreouer, there be in my hands certain books of authors extant, whom I wil not nominate for all the good in the world, wherein is deciphered the manner and means how to giue the tincture of an Emeraude to a Crystall, & how to sophisticate other transparent gems; namely, how to make a Sardonyx of a Cornalline, & in one word, to transform one stone into another: & to say a truth, there is not any fraud or deceit in the world turneth to greater gain and profit than this.

CHAP. XIII.

¶ The way how to make proofe of fine precious stones.

LEt other writers teach how to deceiue the world by counterfeiting gems, for mine own part I will take a contrary courie, and shew the means how to find out false stones that be thus sophistical: for surely, wanton and prodigall though men and women bee in the excessive wearing of these jewels, yet meet it is they should be armed and instructed against such counsellers. And albeit I haue already touched somewhat respectfully as I treated of the chiefe & principall gems, yet I will adde somewhat more to the rest: first and foremost therefore this is obserued, That all stones which be transparent, ought to haue their triall in a morning betimes, or at the farthest (if need so require) within foure hours after morning light, but in no wise later. Now there be diuers experiments that serue for this purpose, to wit, the weight of a stone, for commonly the fine gem indeed is heavier than the other: secondly, the very body and substance is to be considered, for it is an ordinary matter to see in the ground and bottome of falsified stones certain little pushes as it were rising out, to feele them rough in hand outwardly; also to perceiue their filaments not to continue their lustre surely, and to beare it out to the very eye, but commonly in the way to vanish and be spent. But the most effectuell proofe of all, is to take a little fragments, to be ground afterward vpon a plate of yron: but lapidaries wil not indure this triall; they refuse also the experiment made by the file: furthermore, the fragment of the black Agath or Geat, wil not rase or skarifie true gems. Item, false stones if they be pierced or ingrauen, will shew no white. Such difference there is moreover in stones, that some scorne all ingrauing with an yron punfon: others likewise cannot be cut but with the instrument or grauer bent & turned back: but there is not one but may be ingrauen with the Diamant. And verily, the most material thing herein, is to hear the grauing Steele or punfon.

As touching riuers that afford precious stones, Acesines and Ganges are the chiefe: and of all lands, India is the principall.

And now hauing discoursed sufficiently of al the works of Nature, it were meet to conclude with a certain general difference between the things themselves, and especially between country and country. For a final conclusion therefore go through the whole earth and all the lands lying vnder the cope of heauen, Italy wil be found the most beautiful & goodliest region vnder the Sun, surpassing all other whatsoever, and worthily to be counted the chiefe and principall in euery respect: Italy (I say) the very lady and queen, yea, a second mother next to dame Nature of the world: chiefe for hardy men, chiefe for faire and beautiful women, enriched with captaines, souldiers, and slaues: flourishing in all arts and sciences, abounding with noble wits and men of singular spirit, scituate vnder a climat most wholesome and temperate, seated also commodiously (by reason of the coasts so full of conuenient hauens) for traffick with all nations, wherein the winds are most comfortable (for it extendeth it selfe and lieth to the best quarter of the heauen, euen in the midst just between East and West;) hauing waters at command, large forests & faire, and those yeelding most healthful air, bounded with mighty rampiers of high mountains, stored with wild beasts, and those harmlesse: finally, the ground so fertile for corn, the soile so battle for herbage, as none to it comparable. In summe, whatsoever is necessary and requisite for the maintenance of this life is there to be had, in no place better: all kind of corne and grain, wines, oile, wooll, linnen, woollen & excellent beuies, as for horse-flesh, I haue alwaies heard, euen from the mouth of those that be professed runners in the race with horse and charriot, That the breed of Italy passeth al others: for mines of gold, silver, brasse, & yron, it gaue place to no country whatsoever, so long as it pleased the state to employ it that way; and in lieu of those rich commodities which it hath still within her womb, she yeeldeth vs variety of good liquors, plenty of al sorts of corn, and abundance of pleasant fruits of all kinds. But if I should speake of a land after Italy (setting aside the monstrous and fabulous reports that go of India) in my conceit Spaine is next in all respects, I meane those coasts which are inuironed with the sea.

F I N I S.

An Index pointing to the principall matters contained in the second Tome of *Plinies* naturall Historie.

A B

A Baculi, what they be, 598.l.
 Abaculus, an Island, 606.l.
 Abiga, an hearbe, 181.e. why so called. *ibid.*
 Abort, what things decrease, 101.i. 200.i. l. 229.e. 286.k.
 309.b. 340.b. 396.i. 427.a. 449.a.
 women hauing suffered Abort, how to be cured, 104.b.
 Abort how to be prevented, 312.l. 319.f. 339.c. 396.l. m.
 398.m. 403.a. 427.a. 448.l. 590.m. 591.b.
 Abortiue fruit how to be fetched away when a woman
 travelleth therewith, 180.g. medicines causing
 Abort not to be put downe in writing, 213.d.
 Abroditus, a surname that Parasius the painter stiled
 himselfe with, 536.b.
 Abron a painter, 549.f.
 Absinthies. See Wormewood wine.
 Absteriue medicines, 144.g. 197.d.
 Abstinence from wine medicinable, 303.c. from all drinks,
ibid. from flesh meats, *ibid.*

A C

Acacia, what it is, 194.k. from whence it cometh, *ibid.*
 how drawne, *ibid.*
 Academia, a house of pleasure, 402.g. why so called, *ibid.*
 Academica questions, why so called, 402.g.
 Acinos, or Acanon, what hearbe, 119.f.
 Acanthion, what hearbe, 194.i. the medicinable vertues
 thereof, *ibid.* how employed in the East parts, 194.k.
 Acanthios. See Groundswell.
 Acetos, what it is, 237.a.
 Acisigneta, an hearbe Magicall, 204.g. why so called, *ibid.*
 named also Dionysomphas, and why, *ibid.*
 Acesse easie and fauourable to princes, how to be obtai-
 ned, 357.b.
 Acedaria, what they be, 12.i. why so called, *ibid.*
 Acentata, when they be, 603.b.
 Acerate, what stailes, 380.l.
 Acetabulum, what measure it is, 113.e.
 Achates, a pretious stone. See Agath.
 Achilles, what Images, 490.k.
 Achilles how he is painted, 516.b.
 Achilles, a singular wound-hearbe, 216.i. found by A-
 chilles, *ibid.* he cured prince Telephus with it, *ibid.*
 the sundry names in bath, *ibid.* the description, *ibid.* the
 vertues, *ibid.*
 Achaments, a magicall hearbe, 203.b. the description, *ibid.*
 the wonderfull operation, *ibid.* 244.b. why called
 Hippophobas, 203.b.
 Ach of the hill or mountaine Parsely, 24.g. the description,
ibid. See Oreoselinum.
 Acidula, a water medicinable, a fountaine medicinable,

A C

402.l. actually cold, *ibid.*
 Acidulum, a fountaine, 402.l.
 Acinos, what hearbe and the vertues, 111.b.
 Aconiti, what it signifieth, 549.d.
 Aconitum, a poisonous hearbe, 43.e. a most speedie poi-
 son, 269.f. the description of it, 271.a. why called
 Cammoron, *ibid.* how it first was engendred, accord-
 ing to the Poets fables, 270.g. why called Thely-
 phonon, 271.a. how employed for the killing of Panthers
 or Libards, 270.i. named by some Scorpion, and why.
 271.a. by others Myoitonon, *ibid.* why called Aconi-
 tum, *ibid.*
 what remedies against Aconitum, 43.e. 119.a.
 153.b. 262.b. 170.g. 237.f. 270.i. 323.d. 363.e.
 431.c.
 Aconitum how it may be used for the health of man, 270.g.
 Acopis, a pretious stone, 623.b. the description and ver-
 ties, *ibid.*
 Acopa, what medicines they be, 354.l. what go to them.
 417.d. 426.g. 450.i. 591.b.
 Acopos, an hearbe. See Anagyros.
 Acornes, and their medicinable vertues, and properties.
 177.c.
 Acoros. See Galengale.
 Acragas, a singular engrauer, 483.e. sundry peeces of
 his handy worke, *ibid.*
 Acro, who was the first Empericke Physician that cuer
 was, 344.b.
 Acrocorios, a kinde of Bulbe, 19.a.
 Act of generation how it is helped, 130.b. 131.a.
 132.g. See more in Venus. how it is hindered. 58.k.
 59.d. 187.a. 190.b. 221.d. 256.l. See more in
 Venus.
 L. Actius the Poet. 490.l.
 L. Actius being of low stature, caused his statue to be made
 tall. *ibid.*
 Actius Nanius the Angur, 491.b.
 Actius Nanius his statue erected vpon a Columne at
 Rome, *ibid.*

A D

Adad, the Assyrian god, 630.b.
 Adad-Nephtos, a pretious stone, *ibid.*
 Adamantis, a magicall hearbe, 203.c. why so cal-
 led, *ibid.* the strange vertues and properties there-
 of, *ibid.*
 Adarca. See Calamochmus.
 Adarce, what it is. 74.l. the vertues and properties that
 it hath, *ibid.*
 Adders tongue. See Lingulaca.
 Iii
 Aditi.

The Table to the second Tome

Adiutiles Epule, or Adjiciales, what feasts they be, 355.c
Admiranda, the title to a booke of M. Ciceroes, 403.b
Adonis garden, 91.c
Adonium a flower, 297.c
in Adoration of the gods what gesture observed, 434.k
Adulterie how a woman shall loath and detest, 434.k

A E

Egilops, a kinde of bulbe, 19.b
Egilops an hearbe, 235.a. the qualitie that the seed bath, 99.c
Egilops, what vicer, 488.b
Egina, an Island famous for brasse founders, 488.b
in great name for the branchwork of brasse candlesticks there made, 488.b
Egipti stored with good hearbes, 96.l. what they be, 97.b
Egipti famous for singular hearbes, and commended therefore by Homer, 210.l
Egiptian beane, 111.c. the vertnes, 488.b
Egiptia, a precious stone, 625.a. the description, 590.k
Egiles, why they haue but two at one airie, 590.k
Egle stone. See Actives. 630.i
Egophthalmus, a precious stone, 630.i
Egoethron, an hearbe, 94.b. why so called, 630.i
Egonichon. See Greimile. 365.d
Egipti, a kinde of Vulture or Geere, 486.i
Era Militum, what, 486.i
Erarium, the treasure of Rome, why so called, 486.i
Erarij Tribuni, what officers in Rome, 486.i
Eroides, a kinde of Brill, 613.d
Erosim, what gold, 472.g
Echinor, a Physician of Athens, 301.c
Eschyomena, a magicall hearbe, 203.a. why so called. ib. 486.i
the strange qualitie that it hath, 554.g
Esopo the philosopher, 578.g. a bondslave together with 486.i
Rhodope the harlot, 486.i
Actives, a precious stone, why so called, 396.l. 590.k. foure 486.i
kindes thereof, ibid. male and female, ibid. their description 486.i
ibid. the vertnes of them all, 630.i
Actives, a precious stone, 630.i
Atthiopia, a magicall hearbe, 244.g. the incredible 486.i
effects thereof, ibid. from whence we haue it, 269.d 486.i
the description of it. 271.c. the roots medicinal 486.i

A F

Africa, the word is a spell in Africke, 297.d

A G

Agariche, what it is, 227.d. male and female, ibid. d.c. 486.i
the ill qualitie that the male hath, 486.i
Agath, a precious stone, 623.d. why called Achives, ibid. 486.i
the sundry names that it hath, 486.i
Indian Agaths represent the forme of many things within 486.i
them, 623.f
the Agath serueth well to grind drongs into fine powder, 623.f
diuerse kindes of Agaths, 624.g
the chiefe grace of an Agath, 624.g
incredible wonders reported of the Agath by Magicians, 623.b
Agath of King Pyrrhus, with the nine Muses, and Apollo 601.g.b
therein naturally, 601.g.b
Agathoteles, a Physician and writer, 131.e

Agelides, a famous Imageur in brasse, 497.e. hee 486.i
taught Polycletus, ibid. his workes, ibid. he taught 486.i
Myro, 498.b
Ageration an hearbe, 271.d. the description, ibid. why 486.i
so called, and the vertnes. 486.i
Aglaophotis, a magicall hearbe, 203.a. why so called, ibid. 486.i
why named Marmaritis, ibid. used in coniuring and 486.i
raising spirits, 486.i
Agnetes, how to be cured, 38.j. See more in Cornes. 486.i
Agnetes Castus a tree, 257.c
Agnetes, what conduits they be, 468.m
Agnetes, an Imageur in Marble, 565.d. beloned ex- 486.i
ceedingly by his master Phidias. 486.i
Agrimonie, an hearbe, 220.k. why called Eupatorium, 486.i
ibid. the description, ibid. the vertnes, 486.i
Agrion a kinde of Nure, 420.b
Agrippa Menenius entered at the common charges of the 486.i
Romane Citizens, 486.i
M. Agrippa how he cured the gout with vinegre. 156.k
Agrippa, a famous workes during the yeare of his Edic- 486.i
ship. 585.e. how he conuerghed seven riuers vnder 486.i
Rome. 582.b
Agnes, what medicines they do require, 137.a. See 486.i
more in Eucurs. 486.i

A I

Aire of sea water wherefore good, 412.k
Aire, which is good to recouer strength after long sickness, 181.d
change of Aire, for what diseases good, 303.e

A L

Alabastrum, See Stimmi.
Alabastrites, what kinde of stone, 574.g. what uses it 486.i
serued for. ibid. the degrees thereof in goodnesse, ibid. 486.i
Alabastrites a precious stone, 624.i. the place where it is 486.i
found, ibid. the description and vertue, 613.a
Alabastrites, a kinde of Emerald, 613.a
Albicastris, a gold mine in France, yielding the best ore, 469.e
with a 36 part of silver, and no more, 408.k
Albi, its in Candie, 100.g
Albucum, what it is, 402.m
Albula, what waters about Rome. 402.m
Alcarnenes, a fine Imageur and engrauer in brasse and 486.i
marble, 501.a. his workes, ibid. 486.i
Alca, an hearbe, 272.k. the description, 486.i
Alca, a Poet and writer, 486.i
Alcibades honoured with a statue at Rome, 492.i. reputed 486.i
the hardest warriour, 486.i
Alcibiades, most beautiful in his youth & childhood, 568.g 486.i
Alcibion, an hearbe, 275.e. the vertnes, 486.i
Alcibion, a feat painter, 549.f. his workmanship, ibid. 486.i
Alcibion, a woman and a peacemaker, 551.e
Alcmena hardly deliuered of Hercules, 304.m. the cause 486.i
thereof, 486.i
Alcon the Imageur, 514.g. he made Hercules of iron 486.i
and Steele, 486.i
Alcones, a rich Chirurgeon, 348.g. well fleeced by Clau- 486.i
dus Caesar, 159.e
Alde wee what vertnes it hath in Physicke, 159.e
Alectorie, precious stones, 624.i. why so called, ibid. the ver- 486.i
ties, ib. why Milo the wrestler carried it about him, ibid. 486.i
Alc, an old drinke, 145.b. what nourishment it yieldeth, 152.g
Alc, 486.i

of Plinies Naturall History.

Alectorolophos, an hearbe, 275.c. the description and ver- 486.i
ties, ibid. 486.i
Alex, what kinde of sauce, 418.g. how made, ibid. the ver- 486.i
ties and use thereof in Physicke, 486.i
Aleos, a river of a strange nature, 403.d
Alexander otherwise called Paris, excellently wrought in 486.i
brasse by Expirator, resembling a iudge, a louer and a 486.i
murderer, 502.g
K. Alexander the great used to visit Apelles the painter his 486.i
shop, 538.m. he gaue away his concubine saure Campaspe 486.i
to Apelles, 539.a. a conqueror of his owne affections, ib. 486.i
Alexipharmace, what medicines they be, 106.b
Alia, a river, 403.d
Alica, what it is. 139.c. compared with Ptsane. 140.k
See Frumentice.
Alinon described, 128.l.m. two kindes thereof, and their 486.i
vertnes, 129.a
Alisanders, an hearbe, 22.g. how strangely it groweth, 30.g 486.i
the vertnes thereof, 51.v. See Hippocelinum. 486.i
Alisma, what hearbe, 221.a. the names that it hath, ibid. 486.i
the description, ibid. the two kindes and vertnes, ibid. 486.i
Alkakengi, an hearbe. See Halicacabus. 486.i
Alkanet. See Orbanet. 486.i
Almond, a disease of the throat. See Amygdalites. 486.i
Almond tree what medicinal vertnes it affordeth, 171.d 486.i
Almond milke, 486.i
Almonds butter, their vertnes, 486.i
Almonds sweet their medicines, 172.g
oyle of Almonds, 161.b. the effects thereof, 486.i
Alce, an hearbe, 251.b. the description, 271.d.e. an excel- 486.i
lent wound-heale. ibid. how the milke is drawne out of 486.i
it, ibid. a gum issuing from it without incision. 486.i
Aloe mineral about Ierusalem. 271.f
the concrete iuice of Aloe how to be chosen, ibid. how it is 486.i
sophisticated, 272.g. the manifold vertnes it hath, ibid. 486.i
the only purgative comfortable to the stomacke, 486.i
the use of Aloe, 486.i
Alopecia, a disease, when the hair falleth unkindly from the 486.i
head and beard, 232.b. 364.l. the remedies. See 486.i
Haire falling and baldnesse. 486.i
Alone, an hearbe, 272.m. the reason of the name. ibid. the 486.i
description, ibid. called by some Myosoton, ibid. and why 486.i
273.a. the vertnes, 486.i
Alpheus, a river running vnder the sea, 411.b
Alphion, a meere, flowing water medicinal. 403.a
why so called, 486.i
Althaea, what kinde of Mallow, 71.c
Alum, an hearbe, 275.d. the description, ibid. the vertnes, ib. 486.i
Alum, what it is, 558.g
Alum white or cleare, the uses thereof, 486.i
Alum blacke or dun, and the uses thereof, 486.i
Alum how engendred, how made, 486.i
Alum Mineral, where, 486.i
two principall kindes of Alum, 486.i
Alum cleare, the vertnes, 486.i
Alum Schistos, for what it is good in Physicke, ibid. k.l 486.i
Alum, which is simply the best, 559.a. it taketh the name 486.i
in Greeke of the astringencie it hath, 486.i
Alum used to true and fine gold, 466.a
Alutatio, what it is, 486.i
Aluon, an hearbe, 272.l. the description, ibid. the vertnes, ib. 486.i
Aluon, what hearbe, 192.k. why so called, ibid. how it dif- 486.i

fereth from Madder, ibid. the wonderfull operation of it, 486.i

A M

Amatorious medicines and means making thereto, 40.i 486.i
41.b. 119.c. 237.c. 278.k. 288.l. 299.e. 313.b. 314.b. 486.i
to withstand Amatorious drinke, a remedie, 315.g
Amazon, an image, why called Eucnemus, 503.a
Amazons, Images of warlike women, represented by diuers 486.i
artificers, 501.e
Amber in request next to Cristall, 605.c. Plinie seeth no 486.i
reason thereof, 486.i
Poets fables as touching the originall of Amber, ibid. c 486.i
Amber, why it is called Electrum in Greeke. ibid. sundrie 486.i
opinions as touching Amber, & the beginning thereof, 606.g 486.i
Amber called Succinum, Thyenm, and Sacrum, 607.a 486.i
the true originall of Amber according to Plinie, ibid. d 486.i
worne much in Lombardie and those parts in old time, 486.i
as an ornament, and medicinable besides, ibid. f. how to 486.i
be cleensed, 608.b
the sundry kindes of Amber, ibid. which is best, ibid. i. it is 486.i
apt to take a tincture or dye, 486.i
Plinie seeth no cause why Amber should be so much esteem- 486.i
ed, 608.l.m
what Amber is called Chryseletrum, 609.b. the properties 486.i
of this gold Amber, 486.i
Amber is proper to counterfeit the Amethyst, ibid. c 486.i
the vertnes of Amber, 608.k
Ambrosia, properly what hearbe, 222.b. called it is Arte- 486.i
mista, 273.d
Ambrosia, a common name to many hearbes, ibid. 486.i
Ambrosia the right described, ibid. why it is called Botris, ib. 486.i
Ambrosia, one of the names of Houslecke, 237.c
Ambrosia, or Ambrosia, what hearbe, 47.d
Ambrosia, and secret for laying how to be auoided, 111.b 486.i
Amerimnos, one of the names of Houslecke, 237.c
Amethyst, a precious stone, 620.m
Amethysts, which are best, ibid. where they be found, ibid. 486.i
the reason of the name Amethyst, 621.a
Amethysts Indian of a deepe purple colour, 486.i
Amethyst inclining to a facinell, the Indians call Sacodion, 486.i
and the colour Sacon, 486.i
what Amethyst the Indians call Sapiro, 621.b
the Amethyst Parianites, why so called, 486.i
the best Amethysts what properties they haue, 486.i
best Amethysts called Paderotes and Austerotes, ibid. why 486.i
they be called Venus gems, ibid. the reason of the name A- 486.i
methyst, according to the Magicians, 621.c. the vanities 486.i
of the Magicians as touching this stone, 486.i
Amiant stone, 589.a. the description and vertnes, ibid. 486.i
Ammi, what hearbe, and the uses thereof, 62.i
Gum Ammoniacke, 180.k. the vertnes that it hath, ibid. 486.i
Ammonitum, what it is, 598.g
Amomum, 247.b
Ampelites, a kinde of earth medicinal, 560.g. how to be 486.i
chosen, 486.i
Ampelotrace, what plant, 149.c. the description, ibid. d 486.i
Ampeloprasos, what hearbe, 199.b. the vertnes it hath, ibid. 486.i
Ampelos Chironia, what hearbe, and why so called, 215.a 486.i
Amphion a painter, excellēt for disposition of his work, 537.f 486.i
Amphisbana, a serpent or venomous worme, 70.k
the strange effects and nature thereof, 387.e. why so cal- 486.i
led, ibid. the remedie against the venom thereof, 70.k 486.i
Amphytrions, who they were, 553.f
Am, 486.i

The Table to the second Tome

<i>Amphitane</i> , a pretious stone, 624.m. called also <i>Chrysocolle</i>	much by <i>Snailles</i> ,	<i>ibid.</i>
<i>ibid.</i> the force of it, <i>ibid.</i> it draweth gold as the load-	<i>Anthologicum</i> , booke treating of <i>flowres</i> ,	82.l
stone yron, <i>ibid.</i>	<i>Anthracites</i> , a kinde of <i>Schistos</i> , 590.i. the description and	<i>ibid.</i>
<i>Amygdales</i> of the throat and their inflammation how to be	nature,	130.b
cured, 514.59.e. 64.k. 70.g. 71.c. 102.i. 120.k. 123.c	<i>Anthriscus</i> , an hearbe,	111.d
135.d. 138.g. 165.e. 169.d. 200.k. 245.b. 272.f. 301.e	<i>Antibyllon</i> or <i>Anticellis</i> , an hearbe,	254.m
328.i. 419.b. 559.a.c.	the description and vertues,	<i>ibid.</i>
<i>Anylum</i> . See <i>Starchflowre</i> .	<i>Antyllis</i> , an hearbe described,	630.l
<i>Anulus</i> a painter giveth granite and formalitie, 545.e	<i>Antimonium</i> , 366.k. See <i>Stibior</i> or <i>Stimmi</i> .	
his <i>Minerva</i> and other workes,	<i>Anthracites</i> ,	
	<i>Anthermus</i> . See <i>Bupalus</i> .	
A N	<i>Antidotes</i> , a cunning painter, 547.e. wherein he excelled,	<i>ibid.</i>
<i>Anabis</i> , what hearbe,	<i>ibid.</i> he taught <i>Nicias</i> ,	294.g
<i>Anacampteros</i> , a magicall hearbe, 204.k. the strange operation thereof,	<i>Anteus</i> reponed by <i>Pliny</i> for making medicines of a mans skull,	544.k
<i>Anadyomene Venus</i> , the famous picture wrought by <i>Apelles</i> , 539.b. how highly it was esteemed by <i>Augustus</i>	<i>Antropographus</i> , the surname of a painter,	289.f
<i>Cesar</i> , 540.g. the hunt it rooke was the credit of it, <i>ibid.</i>	<i>Antidotes</i> , what they are,	483.e
<i>Anadyomene</i> , another painted table begun by <i>Apelles</i> , but never finished by him or any other,	<i>Antipater</i> , a fine graver,	400.b
<i>ibid.</i>	K. <i>Antipater</i> practised with <i>Aristotle</i> to kill K. <i>Alexander</i>	515.c
<i>Anagras</i> , 273.e. the description,	the great,	430.b
<i>Anachitis</i> , a pretious stone, 631.a. the vertue it hath, <i>ibid.</i>	<i>Antipathia</i> , a kinde of vernish for yron workes,	321.d
<i>Anapanomenos</i> , a painted table of <i>Protopogenes</i> his making,	<i>Antipathie</i> betweene the <i>Puffin</i> or <i>Fork</i> -fish, and plants,	<i>ibid.</i>
543.b. the reason of the name,	430.b,	
<i>Anarrhion</i> , an hearbe. See <i>Calues snout</i> .	<i>Antipathie</i> betweene <i>Deere</i> and <i>Serpents</i> ,	544.k.l
<i>Anaxilaus</i> , a writer in <i>Physicke</i> ,	<i>Antipathes</i> a pretious stone, 624.k. the forme and triall of	549.a
<i>Anchusa</i> , what hearbe, 278.l. 124.k. 125.b. the description and use, <i>ibid.</i> See <i>Orchanet</i> .	it, <i>ibid.</i> good against eie-biting of <i>Witches</i> , <i>ibid.</i> other	512.i
<i>Andrachne Agria</i> , an hearbe, See <i>Illecebra</i> .	vertues thereof,	402.b
<i>Andreas</i> , a <i>Physician</i> and writer,	<i>Antiphilus</i> , a commendable Painter, 549.a. his workes, <i>ibid.</i>	512.i
<i>Androbin</i> , a fine painter,	544.k.l.	
<i>Androdamus</i> , a stone, 590.b. why so called, <i>ibid.</i> the nature and prooff,	<i>Antirrhion</i> , an hearbe. See <i>Calues snout</i> or <i>Snaptadragon</i> .	402.b
<i>Androdamus</i> , a pretious stone, 624.i. the forme and reason of the name,	<i>Antirrhodium</i> , what it is, and the vertues thereof in <i>Physicke</i>	512.i
<i>Androsaces</i> , an hearbe, 273.a. the description, <i>ibid.</i> the vertues,	159.f. 168.j.	
<i>Androsmon</i> , an hearbe, <i>ibid.</i> b. the description, <i>ibid.</i> why so called, <i>ibid.</i> the vertues,	<i>Antipodas</i> , what,	512.i
<i>Anemone</i> ,	<i>Antistius Venus</i> possessed of <i>Cicerones Academia</i> , maintained it,	402.b
<i>Anemone Coronaria</i> , an hearbe proper for guirlands, <i>ibid.</i>	<i>Antonius Musa</i> , a renowned <i>Physician</i> , 344.i. he changed the order of <i>Physick</i> before his time, k. his cure of <i>Augustus Cesar</i> , contrarie to the course of other <i>Physicians</i> , <i>ibid.</i>	402.b
<i>Anemone</i> used in <i>Physicke</i> , <i>ibid.</i> three kinde of <i>Anemone</i> , <i>ibid.</i>	M. <i>Antonius</i> his <i>Admirall</i> ship staid by the fish <i>Echeneis</i>	402.b
<i>Anguinum</i> , what kinde of egge, 353.f. the ensigne or badge of the <i>Druides</i> , <i>Magicians</i> of <i>France</i> , 354.b. the vertues,	before <i>Actium</i> , 426.g. he made counterfeit money, and sent it abroad, 479.g. See more in <i>Cleopatra</i> .	402.b
<i>Anio</i> a water serving <i>Rome</i> ,	S. <i>Antonius</i> fire, a disease, the remedies for it, 38.j. 41.d. 45.c	402.b
<i>Anonis</i> , an hearbe, 273.e. the description,	46.i. 47.b. 58.b. 68.b. 70.b. 71.b. 72.k. 103.l. 103.b	402.b
<i>Ankles</i> swelling how to be allayed,	104.b. 105.a. 111.f. 122.k. 123.c. 140.b. 142.g	402.b
<i>Anonymos</i> , an hearbe, 274.g. why so called, <i>ibid.</i> incredible things reported by this hearbe,	146.k. 158.g.l. 159.c. 161.a. 174.k. 184.g. 191.d	402.b
<i>ibid.</i> b.	193.d. 194.m. 197.a. 205.a. 278.l. 284.k. 307.c	402.b
<i>Anthalius</i> , an hearbe in <i>Egypt</i> , 97.a. the description and use thereof,	309.d. 339.m. 336.a. 351.f. 391.f. 392.g. 419.d	402.b
<i>Anthallum</i> ,	424.b. 433.b. 446.l. 450.k. 475.a.	402.b
<i>Anticetum</i> . See <i>Anisum</i> .	<i>Anabis</i> , the god of the <i>Egyptians</i> ,	478.l
<i>Anisum</i> , an hearbe, 30.l. 65.d. how necessary it is in the kitchen, and otherwise, <i>ibid.</i> the degrees of <i>Anise</i> in goodness, <i>ibid.</i> f. why it is called in greeke <i>Anicetum</i> , <i>ibid.</i>	<i>Anilare</i> , a kinde of white colour, 531.d. why so called, <i>ibid.</i>	478.l
how it is hurtfull to the stomacke,	A P	
<i>Aniachates</i> , a pretious stone,	<i>Apparell</i> how to be kept sweet, 162.i. 110.i. how to be preserved from vermine,	264.h
<i>Antheinus</i> , what hearbe,	<i>Aparine</i> what hearbe,	174.i
<i>Antheum</i> , an hearbe, 255.b. the description,	<i>Aphaca</i> , an hearbe,	99.d
<i>Anthere</i> , what composition,	<i>Aphace</i> , an hearbe, 275.b. the description,	<i>ibid.</i>
<i>Anthericon</i> , the main stem of the <i>Asphodel</i> , 128.g. annointed	<i>Apelles</i> , a writer in <i>Physicke</i> ,	316.i

of Plinies Naturall History.

<i>Antus</i> and <i>Protopogenes</i> at <i>Rhodes</i> , 538.g. h. i. his excellent hand in drawing a small line. <i>ibid.</i> his ordinarie and daily exercise, and his <i>Apothegme</i> thereupon, <i>ibid.</i> k. hee exposed his pictures to the censure of people passing by in the street.	<i>Apoxymenos</i> , a brasse image of <i>Isis</i> ppus his making, 499.b
<i>Apelles</i> thought not scorne to be reponed in his workmanship, <i>ibid.</i> l. his <i>apothegme</i> to a shoemaker, finding fault with somewhat above the shoos in his picture <i>ibid.</i> m. his courtse and faire language. <i>ibid.</i> beloued of King <i>Alexander</i> the great. <i>ib.</i> how mildly he reponed king <i>Alexander</i> being in his shop, 539.a. in lone with <i>Campanse</i> , whom he drew naked. <i>ibid.</i> by what patterne he made <i>Venus Anadyomene</i> . <i>ibid.</i> b. of a kinde nature to other painters of his time. <i>ibid.</i> how he brought <i>Protopogenes</i> into credit, <i>ibid.</i> c. his dexterity in resembling fauour and countenance most lively, <i>ibid.</i> d. what welcome he had in king <i>Ptolomees</i> court in <i>Egypt</i> , <i>ibid.</i> e. how he was censured there, and how he detected the censurer, <i>ibid.</i> f. how he painted king <i>Antiochus</i> , who had but one eie. <i>ibid.</i> f. his picture of king <i>Alexander</i> , holding lightning in his hand, 540.i. the price thereof, <i>ibid.</i> other workes of his, <i>ibid.</i> k. l. m. 541.a. b. c. the horse which he painted in contention with others, 540.m. his deuise to haue iudgement passe iustly on his owne side, 541.a. how he painted things that cannot be pourtraied, <i>ibid.</i> b. the secret of his blacke vernish.	<i>ibid.</i>
<i>Aphrodisiac</i> , 624.m	<i>Arcebius</i> , a picture wrought by <i>Parasius</i> , 536.g. how highly esteemed by <i>Tiberius</i> the Emperor.
<i>Aphrodisium</i> , a river.	<i>Archagathus</i> , the first professor of <i>Physicke</i> in <i>Rome</i> , 345.e
<i>Aphron</i> , a kinde of <i>Poppie</i> , why so called.	first called the <i>vulnerarie</i> <i>Physician</i> or <i>Chirurgion</i> , <i>ibid.</i>
<i>Aphyge</i> , what fish, and why so called.	afterwards named the blonde butcher,
<i>Aphylicores</i> , certaine trees, 606.m. what the word signifies.	<i>Archangel</i> , See <i>Dead Nettle</i> .
<i>ibid.</i>	<i>Archers</i> how they shall shoot and neuer misse.
<i>Apulstrum</i> , what hearbe according to <i>Plinie</i> , 54.i. the vertues and effects.	<i>Archezosis</i> , an hearbe.
<i>Apicinus</i> the glutton lonked the crops of <i>Coleworts</i> .	<i>Arcon</i> . See <i>Personata</i> and <i>Perfolata</i> .
<i>Apilactis</i> , what it is.	<i>Arcton</i> , an hearbe, 274.k. the description, <i>ibid.</i> the vertues, <i>ibid.</i>
<i>Apion</i> , surnamed <i>Pistonices</i> , 613.b. he raised up spirits to know what contriuan <i>Homer</i> was.	<i>Arcturus</i> , an hearbe. See <i>Arcton</i> .
<i>Apios</i> , <i>Ischus</i> , what hearbe, 253.b. the description.	<i>Archigallus</i> , a picture wrought by <i>Parasius</i> , 536.g. how highly esteemed by <i>Tiberius</i> the Emperor.
the root medicinable, and when to be digged, <i>ibid.</i> why it is called the wild <i>Radish</i> .	<i>Archelus</i> , a painter ginen to loosenesse of life, and to mending.
<i>Apocynon</i> , a bone in a <i>Toads</i> side of wonderful power.	<i>Arcthusa</i> the fountaine festereth sometime of dung.
435.a. why so called.	<i>ibid.</i>
<i>Apocynon</i> , a shrub described, 193.a. bane to dogs and other foure-footed beaists.	<i>Argemone</i> , an herbe, how it differs from <i>Anemone</i> , 109.d
<i>Apollodorus</i> , a most curious workeman in brasse, 502.l. hee neuer rested content with his owne workmanship, <i>ibid.</i> surnamed <i>Insanus</i> , i. <i>Mad</i> , and why.	<i>Argemonia</i> , an herbe, 227.c. the vertues that it hath, <i>ibid.</i>
<i>Apollodorus</i> , a writer in <i>Physicke</i> , 119.a. two of that name.	three kinde and their description.
39.d.	<i>Argentaria</i> , a kinde of chalte or white earth, 560.l. why so called.
<i>Apollodorus</i> an excellent Painter, 534.b. what were his inventions, <i>ibid.</i> his workes. <i>ibid.</i> he opened the dore for other artificers.	<i>Argrodamus</i> , a pretious stone.
<i>Apollonius Pytaneus</i> , a writer in <i>Physicke</i> .	<i>Arianis</i> , a magicall hearbe, 203.d. the strange operation thereof.
<i>Apollonius</i> reponed for using the members of mans body in <i>Physicke</i> .	<i>Aris</i> , what hearbe.
<i>Apollonides</i> , a cutter in pretious stones.	<i>Aristida</i> , what hearbe.
a great <i>Magician</i> .	<i>Aristides</i> , a famous painter 541.c. his gift in expressing the conceptions and dispositions of the mind, <i>ibid.</i> d. the perturbations also, <i>ibid.</i> his admirable picture of a sucking babe, and the mother dying upon a mortall wound. <i>ibid.</i> b. sundrie excellent peeces of his handworkes.
<i>Apolophanes</i> , an herbarist and writer in <i>Physicke</i> .	541.e. f. 542.g.
<i>Apostopos</i> , a picture.	for one picture he received 100 talents of siluer.
<i>Apothecaries</i> , their deceitfull dealings, 507.e. against them and their compositions.	<i>ibid.</i>

The Table to the second Tome

of Plinies Naturall History.

<i>Arifides, a Painter.</i>	544.b	refted.	ibid.
<i>Arifius, a fine grauer.</i>	483.e	<i>Asses yeeld many medicines, but the wild Ass is most</i>	323.b
<i>Arifoclides, a good Painter.</i>	549.a	effe wall.	333.e
<i>Arifogiton, a Phyfician and writer.</i>	274.g	the stone that a wild Ass voideth with his urine, being let	333.e
<i>Arifogiton honoured with an image of brasse for killing</i>	490.g	led in chafe is very medicinable.	333.e
<i>Pififtratus the Tyrant.</i>	548.l	<i>Asarotos acos, in Pergamus, the common kall, why so cal-</i>	596.b
<i>Arifolatus, an approued Painter.</i>	513.e	led.	606.k
<i>Arifontidas, a cunning imager.</i>	513.f	<i>Asarubus his opinion as touching Amber.</i>	104.i
<i>Arifophon, a cunning Painter.</i>	549.b	<i>Asarum, or Asarabacca, an hearbe, 104.i. the medicinable</i>	104.i
<i>Arifolochia, an hearbe, 226.g. the foure kindes, g.b.i. the</i>	226.k	vertues thereof.	104.i
<i>round, the male, Clematis or of Cardie, Pifolochia, ibid.</i>	226.k	<i>Asbestinum, a kinde of Line or Flax, 5.a. the admirable</i>	4.m.5.a
<i>their description. ibid. their medicinable vertues. ibid. k</i>	226.k	use thereof.	624.l
<i>Arifolochia, the round, why of some it is called the poyfon</i>	226.k	<i>Asbestos, a pretious stone.</i>	361.b
<i>of the earth. 226.k. See more in Birthwort.</i>	226.k	<i>Ascalabotes, what it is.</i>	420.m
<i>Aristotle a Philosopher. 303.e. noted for denifing a cup of</i>	400.b	<i>Afcanius, a lake of Nure.</i>	ibid.
<i>a Mules house to carrie poyson in it.</i>	400.b	<i>Afcantonia, what kinde of Onion. 20.g. why so called.</i>	ibid.
<i>Arithmetick neceffarie for painters.</i>	537.b	the properties.	ibid.
<i>Arme-boles, the ranke and strong smell how to be remedied.</i>	101.b	<i>Afclepias, an hearbe, 274.l. the description and vertues.</i>	ibid. l.m.
<i>101.b. 105.d. 128.k. 131.b. 207.f. 379.f. 422.l</i>	558.k	<i>Afclepiades, the author of a new profession in Physicke.</i>	344.i
<i>Armentus lapis. See Ford-de Azur.</i>	39.b	344.i. hee reuined and cured one fupposed to bee dead	344.i
<i>Armoracia, a kinde of Radifh medicinable.</i>	344.l	and carried forth to his funerals. 243.d. at first he was	243.d
<i>Armutus a Phyfician grovne to great wealth.</i>	ibid.	an Orator, and afterward became a Phyfician. 242.m	242.m
<i>Aromatics, a pretious stone. 624.k. much used by Queenes</i>	ibid.	he altered the practice of the former Physicke. 243.a. he	243.a
<i>and great ladies.</i>	257.d	denifed fure principall remedies for all diseases. ibid.	ibid.
<i>Arrenogonum, what hearbe.</i>	467.c	which they are. ibid. he was called the cold water Phyfi-	ibid.
<i>Arrugia, what they be in searching for gold.</i>	467.c	tan, because he allowed his patients to drinke cold water. c	ibid.
<i>Arfen. See Mandragoras.</i>	ibid.	<i>Afclepiades denifed bathing first, and pendant beds for</i>	ibid.
<i>Arfenicke of three kindes. 521.a. their description. b. their</i>	ibid.	the sick. 243.c. his diuifions whereby he grew in credit. ibid.	ibid.
<i>vertues.</i>	ibid.	<i>Afclepiodorus, a painter, excellent in meafures and proporiti-</i>	543.c
<i>Arfenogonon, an hearbe described. 268.b. the vertue that</i>	ibid. i	ons. 537.f. admiied therefore by Apelles. 543.c	543.c
<i>it hath.</i>	ibid. i	his picture of the twelve principall gods. ibid. d. what	ibid.
<i>Artemifia, an hearbe. 222.g. called sometime Parthenium,</i>	232.g	reward he had for it from King Mafon.	ibid.
<i>and why. ibid. wherefore it tooke the name Artemifia. ib.</i>	232.g	<i>Afcyroides, an hearbe. 275.a. the description. ibid. why it</i>	ibid.
<i>the description of it. ibid. b. the vertues.</i>	232.g	is called Androfamon.	ibid.
<i>Artemon, an effeminate person. 498.g. why furnamed Peri-</i>	ibid.	<i>Afcyron and Afcyroides, hearbes resembling one another.</i>	275.a
<i>phoretos.</i>	ibid.	275.a	275.a
<i>Artechox described. 78.l. their vertues. ibid. they caufe</i>	ibid.	<i>Alb tree, the medicinable vertues thereof. 184.l. the feed</i>	ibid.
<i>desire of drinke. ibid. m. they helpe in the act of genera-</i>	ibid.	and cuds which it beareth.	ibid.
<i>tion. 131.a. See more in Thifles.</i>	ibid.	<i>Albes of a man or womans bodie burnt, medicinable. 301.e</i>	366.i
<i>Artemon a Phyfician. 294.g. reproched for his magicall me-</i>	ibid.	<i>Alfo, a kinde of Owle.</i>	ibid.
<i>dicines made of the parts of mans bodie.</i>	ibid.	<i>Alplenum, an hearbe. 274.k. the description. ibid. the</i>	ibid. l
<i>Artemon, a singular painter. 549.c. his peeces of worke.</i>	ibid.	vertues.	ibid.
<i>ibid.</i>	ibid.	<i>Alplenus reproched for his poyfoned earthen platter. 554.b</i>	ibid.
<i>Arteriacum, a composition in Physicke. 69.b. how it is</i>	ibid.	<i>Alpreuates, a familie at Rome. 383.d. two brethren of that</i>	ibid.
<i>made.</i>	ibid.	name, how cured of the Collicke.	ibid.
A S	ibid.	<i>Alperngo, an hearbe. 258.b. why so called.</i>	ibid.
<i>As, in Rome what it fignified.</i>	462.k	<i>Alphodell an hearbe. 99.f. the description. ibid. the use of</i>	ibid.
<i>As, of twelve ounces, stamped with the image of a Sheepe.</i>	462.l	root and feed. ibid. a foueraigne hearbe. 127.e. the harme	ibid.
<i>As, of two ounces, stamped with a two-faced Ianus of one</i>	463.a	that commeth by Alphodell feed.	128.i
<i>side, and the breakhead of a fhip on the other.</i>	ibid. c	<i>Alphate a pretious stone. 624.l. two of that name, and their</i>	ibid.
<i>As, of one ounce. ibid. b. of halfe an ounce.</i>	ibid. c	description and vertue.	ibid.
<i>an Affe delighteth in the hearbe Ferula, or Fennell geant.</i>	176.b	<i>Aspis, a venomous serpent killeth by a fleepie poyfon, and is</i>	113.a.b
<i>176.b.</i>	324.l	killed likewise by a foporifrons hearbe.	356.k
<i>Asses boufe burnt to afhes, medicinable,</i>	325.e	<i>Aspis a most deadly ferpent with a sting. 356.k. it killeth</i>	ibid.
<i>Asses greene dung medicinable.</i>	325.e	by droufneffe. ibid. inwardly taken, it is no poyfon.	ibid.
<i>Asses confecrated to Bacchus, and phy.</i>	322.l	how the Aspis may be intoxicated. 201.b. the miraculous	ibid.
<i>Asses yeeld remedies againt ferpents and fcorpions. 322.l</i>	324.b	cure of a manfing with an Aspis. 156.b. what reme-	ibid.
<i>Asses urine what it is good for. 324.b. how to be cor-</i>	324.b	dies againt the venomous sting of the Aspis. 67.b. 106.i	ibid.

<i>avoided.</i>	359.b	<i>Turquois.</i>	624.m
<i>Assius, a stone medicinable. 587.e. the floure of this stone</i>	ibid. f	<i>Augustus Caesar signed at first with the image of Sphinx.</i>	601.e
<i>good in Physicke.</i>	148.k	<i>601.e. the mast that arofe thereupon. ibid. f. he gave it</i>	602.g
<i>Ataphis, what it is.</i>	ibid.	<i>ouer, and used afterward the image of king Alexander</i>	601.d
<i>After an hearbe. 274.m. the description. ibid. why called</i>	ibid.	<i>the great.</i>	117.e.f
<i>Bubonium.</i>	ibid.	<i>Augustus Caesar his owne image ferved as a fignet vnto his</i>	444.b
<i>After a kinde of Samian earib. 559.d. the use in Physicke.</i>	ibid.	<i>successors to feale withall.</i>	601.d
<i>ibid. c. how knowne.</i>	ibid.	<i>Augustus Caesar crowned with an obfidiouall or grasse co-</i>	117.e.f
<i>Aferie, a kinde of white gem called a Girafole. 622.i. the</i>	ibid. k	<i>rovet.</i>	117.e.f
<i>description and reason of the name.</i>	ibid.	<i>Auli, the male shell-fishes.</i>	165.e
<i>Aferium, an hearbe. 123.d. the description.</i>	360.i	<i>Auicents commended for their industrie. 165.e. 208.k. for</i>	209.e
<i>Aferion, a kinde of spider.</i>	ibid. c	<i>their lone to posteritie. ibid. l. 209.c. for their labour and</i>	607.d
<i>Atragalus, what hearbe. 249.b. the vertues.</i>	498.g	<i>travaille.</i>	502.i
<i>Atragalizontes. 497.f. an excellent peece of worke wrought</i>	541.b	<i>Anftania, an Island, the same that Glefaria.</i>	ibid.
<i>by Polycterus.</i>	630.l	<i>Antolcus a Loy, represented linely in brasse by Leocras the</i>	ibid.
<i>Atrape, a picture of Apelles his workmanship.</i>	630.l	<i>Imagur.</i>	ibid.
<i>Atrapias, a pretious stone.</i>	622.k	<i>Antepros, a kinde of bread. 141.a. how medicinable. ibid.</i>	ibid.
<i>Atrios, a pretious stone of a white colour. 622.k. the de-</i>	ibid. l	A X	589.d
<i>scription and reason of the name.</i>	ibid. i	<i>Aximomantia, what kinde of Magicke.</i>	320.i
<i>Astringent medicines. 48.g. 141.a. 147.a. 148.b. 158.i</i>	161.c	<i>Axingia, what greace it is. 320.i. why so called. ibid. the</i>	ibid.
<i>161.c. 162.g. 163.e. 172.l. 175.b. 182.m. 192.b</i>	194.g	A Z	372.i
<i>194.g. 195.d. 196.a. 223.c. 237.c. 249.c. ibid. 250.g</i>	255.a	<i>Azonaces taught Zoroastres art Magicke.</i>	484.b
<i>255.a. 263.d. 275.b. 277.a. 278.i. 281.c. 284.b</i>	286.k	<i>Azur mineral or naturall. 484.b. what it is. ibid. l. sun-</i>	ibid.
<i>286.k. 287.b.d. 319.b. 418.k. 421.c. 473.d. 474.b</i>	485.b	<i>dris sorts.</i>	ibid.
<i>485.b. 506.m. 511.c. 516.b. 519.c. 520.m. 529.d</i>	557.d	<i>Azur artificiall. ibid. how it is coloured.</i>	485.c
<i>557.d. 559.i. 559.o.</i>	249.c	<i>Azur the best how it is knowne.</i>	ibid. b
<i>Astringent medicines and binding the belly, bee diureti-</i>	622.l	<i>false Azur how it is made.</i>	ibid.
<i>call.</i>	ibid.	<i>the vertues medicinable of Azur.</i>	ibid.
<i>Aftroholos a pretious stone.</i>	24.k	B A	300.i
<i>Aftroites, a pretious stone.</i>	469.c	B	300.i
<i>A Tyllis, the hearbe Leitufe, why so called.</i>	625.a	<i>Abes how preferred from eye-biting of Witches. 300.i</i>	300.i
<i>Aituria the richest part of Spaine for gold mines.</i>	234.l	<i>See Infants.</i>	ibid.
<i>Alyctos, a pretious stone the forme and vertue of it. 625.a</i>	ibid.	<i>Bacchar, an hearbe. 85.e. the root onely is odoriferous. ibid.</i>	104.g
<i>Alyta, what hearbe.</i>	525.d	<i>what fauour it hath. ibid. where he loneth to grow. ibid.</i>	568.g
A T	ibid.	<i>Bacchus his image most cunningly wrought in marble by</i>	313.b
<i>Atalanta, her picture at Lannuium.</i>	ibid.	<i>Scopas.</i>	401.d
<i>Atamanicum, a kinde of Spikenard or Men. 77.a. why</i>	ibid.	<i>Backe paine how to be eased, and the weakenesse strengthene-</i>	411.b
<i>so called. ibid. the description.</i>	158.i	<i>ned. 49.e. 52.g. 53.a. 54.b. 125.a. 191.d. 199.b. 248.i</i>	412.b
<i>Athara, what it is.</i>	548.b	<i>313.b. 450.i.</i>	ibid.
<i>Athemon of Marona, an excellent Painter, wherein be ex-</i>	ibid.	<i>Baiaues, a vale full of medicinable Springs..</i>	412.b
<i>celled, and his worke.</i>	ibid.	<i>Baiaues naturally hot, became of a suddaine cold.</i>	ibid.
<i>Atizae, a pretious stone. 624.l. the forme and use thereof.</i>	312.m	<i>Baiaues hot nor rised for Physicke in Homers daies.</i>	ibid.
<i>ibid.</i>	317.d	<i>Baiaues of Brimstone, for what good.</i>	ibid.
<i>Atlantia, what it is.</i>	317.d	<i>Baiaues of Bitumen in what diseases medicinable.</i>	ibid.
<i>Atramentum, painters blacke, an artificiall colour. 530.b</i>	ibid.	<i>Baiaues of Sal-nitre for what infirmities wholefome.</i>	ibid.
<i>Atramentum Sutorium naturall. See Vitrioll.</i>	ibid.	<i>Baiaues of Alumine in what cases good.</i>	ibid.
<i>Atraphia, what infirmite and defect of the body.</i>	ibid.	<i>hot Baiaues, Stones, and Hot-houses how dangerous.</i>	ibid.
<i>the remedies thereof. ibid.</i>	ibid.	<i>349.a. how such are to be used.</i>	ibid.
<i>Atraphi, who they be.</i>	ibid.	<i>in Baiaues naturall, how long the patient is to fii.</i>	ibid.
<i>Atratylys, an hearbe. 97.c. why so called.</i>	ibid.	<i>Baiaues or bathing in cold water after hot.</i>	ibid.
<i>Attalus, a writer.</i>	ibid.	<i>who denifed it.</i>	ibid.
<i>Attalica vefitis, what kinde of cloath.</i>	ibid.	<i>Baiaues of cold water denifed by Charmis, and approued by</i>	ibid.
<i>Attelabi, a kinde of winged Locusts.</i>	ibid.	<i>Anneus Seneca.</i>	ibid.
<i>Attir in the breast & chift how to be discharged 58.g. 67.d</i>	ibid.	<i>forbearing Baiaues and Baiths, is medicinable.</i>	ibid.
<i>See more in Breaft.</i>	ibid.	<i>heat in a Baiaue or Stone how it may be better endured.</i>	ibid.
<i>Attractiue medicines to the outward parts. 139.b. See</i>	ibid.	<i>407.f. 419.c.</i>	ibid.
<i>more in drawing.</i>	ibid.	<i>Balance, all contracts and sales paffed by it in Rome.</i>	ibid.
A V	ibid.	<i>462.l.</i>	ibid.
<i>Auent, an hearbe. 247.d. the description and vertues. ibid.</i>	ibid.	<i>Balance, all contracts and sales paffed by it in Rome.</i>	ibid.
<i>Auent, a lake wherein nothing will ftoe.</i>	ibid.	<i>407.f. 419.c.</i>	ibid.
<i>Auent, what water.</i>	ibid.	<i>Balance, all contracts and sales paffed by it in Rome.</i>	ibid.
<i>Auent, a pretious stone, thought to be Callais, or the</i>	ibid.	<i>462.l.</i>	ibid.

The Table to the second Tome

Balanites, a pretious stone. 625. a. two kinds of it and their forme. *ibid.*
Balanstia, what they be. 165. e
Baldnesse or *Bald* places occasioned by *Alopecia*, how to be replenished with haire. 364. i. k. l. m. 365. a. b. 432. b.
 See more in *Haire* shadding.
Baleare Islands yeeld earth medicinal. 561. d
Balis a wonderfull hearbe. 211. b. a young dragon and a man were by it remued. *ibid.*
Ballote an hearbe. 278. g.
Baltia an Island. 606. i
Balsces, what they be. 469. b
Banchus, a fish medicinal. 439. e. the stones in the head likewise medicinal. 444. g
Baptes, a pretious stone. 625. a
Baraine women how to prone fruitful. 306. g. 312. k. 313. c. 397. a. b. 402. g. l. 403. m.
 See more in *Conception*.
Barraignes what things doe canse. 274. l. 403. a
Barble fish medicinal. 433. e. hurtfull to the eye sight. 438. i. 442. b.
Barble of the sea what harme he taketh by tasting of the sea-hare. 427. a. b
Barley what medicinal vertues it doth affoord. 138. i
 140. i. which barley is best. *ibid.*
Barley groats. See *Potentia*.
Barley meale, what effects it worketh in water and wine. 176. i.
Barme, what it is and the use thereof. 145. b
Baropentus, a pretious stone. 625. b. the description. *ibid.*
Baroptis. See *Baropentus*.
Barfantes, a kinde of marble resembling yron. 573. d. thereupon it took the name (out of the Hebrew.) *ibid.*
animage of *Barfantes* within the temple of *Serapis* in *Thebes* of *Egypt*. 573. e. the strange qualitie of it. *ibid.*
Basantes, a kinde of touch or whetstone of the best kinde. 590. b. 592. g.
Basill gentle, a sweet hearbe, how it flourisheth. 19. f. the seed how to be sowne. 23. b
Basill condemned by *Chryppius*, and why. 54. l. the commodities of *Basill*. 54. l. why goats refuse it. 54. m. it hurteth the braine, eyes, stomacke and liver. *ibid.*
 it bringeth falk out of their wits. *ibid.* it turneth into a serpent, magots, and worms. 55. a. how it gathereth scorpions onto it. *ibid.* it engendreth lice. *ibid.*
Basill commended and maint. ued by other writers. *ibid.*
Basill wild, the vertues that it hath. 55. e
Basillike, a serpent venomous and deadly with his eye. 356. m. the Magicians tell wonders of his blond. *ibid.*
 they call it the blond of *Saturne*. 357. a
Batniles represented in brasse by diuerse Imageurs. 503. b
Battaille in picture first shewed by *St. Valerius Max. Mef-sula*. 526. i
Batts, what vanities are reported of them by the Magicians. 359. f
Batts hurt by the Plane tree. 184. k
Batis an hearbe, and the vertues medicinal that it hath. 111. b.
Batis of the garden, is *Sampier*. 254. k
Batrachion, what hearbe. 286. m. 239. c. See *Cromfoot*.
Batrachius, a pretious stone. 625. a
 three kinds thereof. *ibid.*

Batrachus and *Saurus*, two most excellent masons and cutters in stone. 570. i. their denisse alluding unto their names. *ibid.*
Baulme or *Balsamo* oil. 162. g
 the singular vertues that it hath. *ibid.*
 to be used warily. 162. h
Baulme the hearbe. 106. k
 the names that it hath in Greeke respectiue to Bees and honey. *ibid.* the medicinal vertues that it is endued withall. *ibid.*

B E

Beanes, their medicinal vertues. 141. c
Bearefoot, what hearbe. 224. i for what it is soneraigne. *ibid.* 247. e.
Beares greife medicinal. 323. f
Beares gall. 324. k
Beasts how to be cured of many and sundry diseases. 58. l
 285. b. 342. k
Bebelo a silver mine in *Spaine*. 472. l. of long continuance and very rich. *ibid.*
Bechion, an hearbe. See *Folefoot* or *Coughwort*.
Bedus, a fine imagener, and his works. 501. c
Bedegnar or white *Thysile* used both in gairlands and also in meats. 92. l. 194. i
Bed-rid of long sicknesse, by what meanes to be recovered. 219. e.
Beech tree what medicines it doth affoord. 178. l
Beere, a drinke used in oldtime. 145. b
 what nourishment it yeeldeth. 152. g
Bees subiect to the Lusk how to be remedied. 93. d
 how they are to be fed. 93. e. 94. g. 95. c.
Bees what flowers they delight most in. 93. c
Bees straying abroad from the hinc how to be reduced and brought home. 400. g
Bees stone thirke worst. 23. e.
Bees killed, if a monstrous woman touch the hinc. 308. m
Bee-hines become well a garden of flowers. 93. c
Bee-hines how they are to be made. 95. c. how they should stand. *ibid.*
Bees sting, how to be remedied. 40. f. 56. m. 95. a. 106. k
 153. b. 173. a. 363. d. 399. f.
Bees how to be driuen away that they shall not come neare to sting. 53. b
Beestings, what it is. 317. b
Beestings crudling in the stomacke is poison. 323. b. how to be remedied. *ibid.*
 See *Colostrum*.
Beet of silver offered to *Apollo*. 17. d
Beet seed cometh not all up in the first yeare. 23. a
Beets of two sorts. 25. c. d
Beets how to be eaten. 25. c. d
Beets are of diuerse and contrary qualities. 25. d
 how garden Beets and other hearbes may be made to cabbage. 25. d. e
Beets spread much. 25. e
Beets restore the tast to wine. *ibid.*
Beets when to be sowne and transplanted. *ibid.* their medicinal vertues. 47. a
Beetles, certain flies, honoured by the *Egyptians* superstitiously. 390. k
Appian would seeme to gine a reason thereof to excuse his contritiens vanitie. 390. l
Belus,

of Plinies Naturall History.

Belus, a pretious stone. 625. b. consecrated to god *Belus*. *ib.*
Belching slower and strong, how to be repressed and eased. 66. b. 249. e.
Bellie ach how to be allaid, 383. e. f. 422. k
 See more in *Wings*.
Bellie ach in beasts, 342. l
Bellie subiect to many diseases, 248. k
Bellie and mouth together chiefly means to worke our death. *ibid.*
Bellie swolne and hard how to be molified, 40. i. 107. f
 186. i.
 See more in *Tumors*.
 for the *Bellie* appropriate medicines, 154. g. 158. g
Bellie costive how to be loosened, 40. b. 43. b. 47. c. e. 48. k
 51. c. 53. a. 160. l. 318. b. 331. a.
 See more in *Soluble*.
herbe *Benet*. See *Aureus*.
Beetners in much request among Physicians, 451. b
 they live on land and water, 430. i. whether they live off their owne stones or no, *ib. k.* the description of their stones, and how they be sophisticated, *ibid.* how *Beetners* stones be knowen the true for falsified, *ibid.* the degrees in goodness of their stones, *ibid.*
 See *Castoreum*.
Beetners wine a counterpoison, 431. c
 oil of *Ben* the vertues that it hath, 161. e
Benumbed parts for colder otherwise how to be chased and restored, 58. b. 108. k. 134. g. 168. g. 173. d. 178. k
 259. f. 359. c.
Beryll, a pretious stone much of the nature of the *Emeraud*. 613. b. *India* the naturall place thereof, *ibid.* how it is to be cut, 613. c. which is the best, *ibid.*
Beryls of diuerse kinds. 613. c. d
Chryso-beryllus, 613. c
Chryso-pirafos, *ibid.*
Hyacinthizon, 613. d
Aeroides, *ibid.*
Beryls, *Cerini*, *Oleagini*, *Chrystallini*, the blamings and faults of *Beryls*, 613. d
 the grace of *Beryls* lyeth in their length, 613. d. e
 how they be sophisticated, 613. f
Petonia the hearbe, called *Vestonica*, whereupon, 224. g
 named *Serratinia*, *Cestion*, and *Physicorophon*, *ibid.*
 the description and praise of this hearbe, *ibid.* the vertues 224. g. h.
Beautie and fauour procurel to the bodie by hearbes in old time, 114. k. 231. f
 how to be helped, 150. b. 314. k

B I

Bison, a kinde of wine, 155. c. wherefore it is good, *ibid.* d
Bialconya writer in Physicke, 342. g
Bigatti, what peeces of silver come at *Rome*, 463. c
Biles or fell pushes how to be dissolved or resolved, 56. b
 128. b. 140. b. 145. c. 158. g. 169. e. 587. f. how to be ripened, 141. e
 See more in *Impurities*.
Bindweed, *Smilax*, *Nicephorus*, an hearbe, 190. l. the description, *ibid.* the vertues that it hath in Physicke. *ibid.*
 two kinds, *ibid.*
Bindweed. See *Elatine*.
Birds, how they may be filled by a picture, 546. g
Birth of children, how it may be eased and secured. 36. i

41. d. 52. k. 66. k. l. 72. b. i. 110. g. 131. c. 173. d. 174. g. 180. b. 198. k. 202. g. 207. d. 268. b. 273. f. 283. b. 290. i. 299. e. 301. c. d. 313. c. d. 315. d. 399. c. d. 340. g. b. 340. k. 353. a. 396. g. k. l. m. 448. k. 449. a.
 how to be hastened, 205. c
 after-birth how to be sent or brought away, 43. f. 50. b
 54. b. 57. f. 60. k. 65. d. 74. b. 78. g. 106. g. 110. g. 127. c. 129. d. 150. g. 157. e. 174. g. 182. m. 197. b. 199. d. 201. a. 216. g. 266. l. 267. a. c. d. e. f. 273. f. 279. a. 288. b. 290. i. 339. d. 341. a. 395. f. 417. e. 430. m. 448. i. 448. m.
Bisontes. See *Bustles*.
Biting by man or woman how to be cured, 61. b. 143. b
 172. b. 301. a. 443. l.
Bitumen approcheth the nature neere to brimstone, 557. b
Bitumen *stemicus* in *Iurie*, *ibid.*
Bitumen *Minerall* in *Syria*, *ibid.*
Bitumen liquid where it is found, *ibid.*
 where it is white, *ibid.*
Bitumen vntuous in the territorie of *Agragantum*, 557. c
 how the pafants gather it, *ibid.*
 the use thereof, *ibid.*
 marks to know good *Bitumen*, 557. c. d
 the operation of *Bitumen*, 557. d
 the plaster of *Bitumen* for what it is good, 557. e
 how it serueth to enhuile vessel of brasse, 557. f. 558. g
 with cement of *Bitumen* the wals of *Babylon* were built. 558. g.
 how *Bitumen* serueth yron-smiths and nailers, *ibid.*

B L

Blacke and blew under the eyes how to be dissolved, 272. h
 277. c.
Blacke of painters called *Indicum*, 530. k
Blacke of *Djars* made of storey, *ibid.*
Blacke colour of painters called *Fryginon*, *ibid.*
 used much by *Polygnon* and *Mycon* painters, *ibid.*
 an artificiall colour, 530. h. which is best, *ibid.*
Blacke *Elephantinum*, deuised by *Apelles*, 530. k
Shoemakers *Blacke*, 510. k. m
Blacke and blew marks upon stripes and bruses how to be taken out, 30. c. 44. k. 50. g. 54. b. 62. b. 64. l. 109. b. 126. l. 134. g. 141. b. 143. f. 149. c. 161. c. 163. a. 172. i. 192. i. 200. k. 240. g. 272. b. 277. c. 289. c. 318. l. 337. d. 350. i. 352. i. 394. k. 413. b. 424. b.
Blacke stones, 588. h
Bladder pained how to be eased, 129. a. 130. g. 140. m
 207. a. 238. m. 254. g. b. i. k. 255. a. b. c. 263. d. 384. k. 430. g.
Bladder stopped how to be opened, 77. b
 See more in *Urine*.
Bladder itching how to be helped, 130. i
Bladder scabbed, excoriated, and exulcerate, or otherwise griened, how to be mundified and eased, 38. i. 46. i. 47. d. e. 61. a. 70. b. 72. l. 102. g. 107. f. 110. g. 120. b. 161. c. 171. d. 206. l. 255. c. 267. b. 290. i. 352. b
 437. c.
 for the *Bladder*, appropriate and comfortable medicines, 148. k. 150. l. 163. b. 167. c. 171. c. 174. i. 179. b. 180. k. 181. f. 116. b. 289. a. 359. c. 384. b. 444. g. 589. f.
Blains. See *Biles* and *Phyles*.
Blatta, a kinde of fire or Beetle medicinal, 370. i. k. l. m. diners

The Table to the second Tome

diuerſe kinds of them deſcribed. ibid. and their ſundry virtues.
Blattaria, what hearbe, and why ſo called. 228.k. the deſcription. ibid.
Bleach. See Itch and Scabs.
Blechnon. See Ferne.
Bleeding occaſioned by feeding much upon fiſh. 447.a. how the ſame is ſtaied. ibid.
Bleets, a ſoſiſh hearbe. 76.l. the danger thereof. ibid.
Blemishes in the uſage how to be taken away. 52.a. 55.c. 56.i. 58.k. 133.c. 144.g. 314.k. 422.m. See more in Viſage, Skin, Pimples, and Freckles.
Blenny, certaine fiſhes of the Mullets kind. 444.g. the aſhes thereof be medicinale. ibid.
Blindneſſe what remedies for it. 421.d. See more in Eye-ſight.
Blitters red, how to be cured and prevented. 43.f. 139.b. 158.k. 338.l.
red Blitters riſing like purples how to be reſpreſſed. 186.b
Blitters vpon burning or ſcalding, how to be healed. 303.c. 351.e.
Blitters, how to be raiſed. 166.m. See more in Cantharicks.
Blond, what, gender and encreaſe. 46.g. 152.g
Blond-ſtickers. 361.d. See Horſeſteeches.
Blond of a buckes goat is ſtrong. 321.c. the effect that it hath in edge roots. ibid.
Blond of goats maketh a pale look. ibid.
Draſtis a Tribune of Rome drank it for that purpoſe. ib.
Blond of red Deere. ibid.f
Blond of Saturne, what it is. 357.a
Blond of may or woman is medicinale. 301.d
Blond of horſes and mares is corouſe and dangerous. 321.b
Bulls blond venomous. ibid. unleſſe it be at Egira a citie in Achaia. ibid.
Blondſals how to be healed. 148.l. 173.c. 258.m. 324.k. 393.e. 589.b. See more in Chiriblancs.
flux of Blond in horſe how to be ſtaied. 342.k
Blond cluttered and congealed in the bodie, how to be diſſolued and expelled. 39.c. 103.a. 110.f. 141.c. 156.g. 157.a. 167.f. 182.g. 412.m. 557.e. how to be kept from cluttering. 162.b
Blond breaking out at times in ſundry places, how to be reſpreſſed. 263.f
Blond loſt how to be recovered. 156.m
Blond-ſtone. See Hamatites.
Bleeding how to be ſtaunched. 45.c. 52.b. 57.d. 59.d. 78.k. 119.f. 120.a. 127.c. 140.d. 142.k. 146.k. 158.k. 169.d. 170.a. 171.d. 174.l. 178.d. 184.k. 196.b. 197.a. 199.b. 223.f. 245.a. 263.a. 272.i. 273.d. 274.i. 284.b. 307.c. 337.f. 338.g. 350.b. 365.a. See more in Iſſue of blond.
Blond vomiting how to be reſpreſſed. 263.f. 424.i. 430.g. 529.a. 589.f. See more in blond voiding upward.
Blond ſpitting reaching and voiding upward, what remedies therefore. 39.c. 43.a. 44.i. 48.b. 49.d. 55.c. 58.g. 59.d. 73.c. 75.a. 102.g. 138.f. 140.m. 144.v. 147.l. 163.f. 149.g. 159.a. 160.g. 163.a. 163.b. 165.c. 171.c. 172.g. 174.b. 178.f. 179.a. 184.b. 186.l. 188.k. 190.g. 194.g. 195.c. 196.g. 197.d. 247.f. 248.g. 249.b. 263.c. 272.i. 274.g. 275.e. 283.d. 289.c. 291.d. 305.d. 329.b. 352.b. 353.a. 380.i. 381.b. 412.k. 424.j. 442.i. 559.d.

Blondie ſlix how to be cured. 37.b. 39.a. 40.k. 42.b. 46.i. 47.b. 48.g. 49.d. 52.k. 55.c. 66.i. 72.k. 73.c. 102.b. 106.l. 120.l. 126.g. 129.a. 130.l. 137.b. 139.f. 142.i. 146.i. 147.a. 148.b. 153.c. 161.c. 163.g. 165.f. 168.g. 172.i. 174.b. 177.b. 177.c. 190.b. 195.c. 196.f. 197.f. 220.l. 248.m. 249.a. 250.g. 263.d. 272.l. 281.a. 285.b. 287.c. 289.c. 291.d. 311.c. 314.g. 318.k. 331.b. 332.g. 352.b. 353.c. 382.k. 383.m. 418.k. 443.f. 516.g. 520.i. 557.g. 559.c.
the paines proceeding thereupon how to be aſſuaged. 148.l. See more in Dyſenterie.
a Blonding called in Latine Sanguiculus. 332.g

B O

Bodies of thoſe that haue been ſtung with ſerpents or bitten by mad dog, make eggs addle under a hen, and caſt em and ſuch to caſt their young untimely. 299.b. the remedie. ibid.
Boethius, an excellent imageur and engraver. 483.b
Minerua of his workmanſhip. 503.c. a child ſtriking a goſe wrought by him. ibid.
Better he was in ſilver than in braſſe. ibid.
Boy children, by what means they are thought to be gotten and bred. 215.f. 226.k. 257.b. 279.b. 288.m. 339.c. 340.m.
Boies, how Salpe cauſed to looke young and ſmooth, without haire on their faces. 449.c
Bole, certaine precious ſtones. 625.c
Bole-armen common, a painters colour. 528.i
Bolbiton, what it is. 336.l
Boleti, what Muſtroms. 132.m
Bolites, what it is. 110.l
Bombace. See Cotton.
Bone ach how to be eaſed. 262.k
Bones grieved how to be helped. 262.k
Bones broken how to be knit and ſundered. 40.b. See Fractures.
Bones growing within the ground. 588.b
ſtones of a Bone ſubſtance. ibid.
a Bone found in a horſe heart for what it is good. 326.m
Bonet vailing, whereupon and for what cauſe it aroſe. 305.a
Borage. See Bugloſſe.
wild Bores, what they doe yeeld aduerſe to ſerpents. 322.b
wild Bores greace medicinale. 324.k
their urine likewiſe and gall. 325.d
Bores greace medicinale. 230.b
Bores troubled and ſkalt with their owne urine. 332.l
Bostrychites, a precious ſtone. 625.b
Bots in beaſts how to be expelled. 326.l
Botches. See Impoſtumes.
Botches in the clementories, how to be diſcuſſed or elſe ripe- ned. 121.d. 122.g. 144.g. See Impoſtume called Pami.
Botryon, what medicine. 301.e
Botrys, what hearbe. 222.b. the deſcription. ibid.
Botrys, 278.b. what names the Cappadocians give it. ibid.
Botrytes, a precious ſtone. 625.b
Borax naturall. 454.g. a minerall and where found. 470.l. the degrees of Borax in goodneſſe, and where to be had. 470.m.
Borax artificiall. 470.m. called Lutea or yellow Bo- rax.

of Plinies Naturall Hiſtory

raz. 471.a. how it is made and prepared. ibid. b. how coloured. ib. of two ſorts. ibid.
Borax which is beſt, and how knowne. 471.c
the prices of the ſeueral kinds of Borax. ibid. d
Nero paſſed the great Cirque at Rome all our with greene Borax. 471.c
Borax of three kinds. ibid. d
Borax in powder, how to be laid in painting. ibid.
Borax that goldſmiths uſe, is called Chryſocola, or Gold-ſoder. 571.f. it is altogether artificiall. ibid. how it is made. ibid. the vertues medicinale. 471.c
Boryſthenes, a ſamourner. 410.k. ſloteth over the river Hypanis. 411.c. once in the Summer looketh of a violet colour. ib. the water of it very light. ibid.
Borſcites, a precious ſtone. 621.a
Bowels their obſtructions how cured. 259.a

B R

Brabyla. 278.i
Bracelets given to Roman citizens for their ſervice in wars. 461.c.
Bracelets of gold worne by men next to their arme bare. 461.f. ſwiftly they are called Dardania. 462.g
Brains and the pellicles thereof impoſtumat, how to be cured. 185.f
Braine pellicles how comforted. 189.d
Braines ſight how to be ſetled. 67.a
Braines intoxicat, by Haliacabius or Dwale, how to be helped. 113.a
Braine how it is purged of phlegmaticke humours. 47.c
323.l. 233.c. 234.k.
Brains of a wild Boe aduerſe to ſerpents. 322.b
Branksfe or Keſtraught of wits, how to be cured. 44.g. 46.i. 56.b. 219.d. 283.m. 591.a.
Brambles, what medicinale vertues they be endued with. 195.f. they are exceeding aſtringent. 196.k
Branded marks how to be taken. 240.g
Brankurſine, an hearbe to what eſes it ſerueth. 129.b. two kinds thereof. ibid. the medicinale vertues. ibid. c
Branches for light in temples made ordinarily of braſſe. 489.c.
Braſſe pots how they may be ſcoured, & rid of ſcurring. 516
Braſſe ore. See Cadmia.
Braſſe a metall greatly eſteemed. 486.i
of Braſſe founders a confraternitie at Rome. ibid. k
Braſſe weighed on for payment and money. 462.k
Braſſe firſt coined by Ser. Tullius K. of Rome. ibid. l
what was the ſtampe. ibid. the value enhanced and rai- ſed at Rome. 463.a
Braſſe mines where the beſt. 486.l
they are medicinale. 506.g
Braſſe tried out of the ore. 486.k
Braſſe made of Cadmia. 486.b
Braſſe Cyprinus or copper made of Chalchitis. ibid. m
Braſſe Salluſtianum. 487.a. why ſo called. ibid.
Braſſe Lituſianum. ib. why ſo called. ibid.
Braſſe Aluſianum. 487.a
Braſſe Cerubeneſe. ibid.
Braſſe At ſicilia, a compund temperature of the beſt. 487.c
Braſſe Cornubian, what mixture it was. ib. d. highly eſtee- med. ibid. Cornith braſſe metall of three kinds. 488.g
Braſſe of Aſina highly eſteemed. 448.b

Braſſe of Delos much accepted. ibid.
Braſſe of Corinth employed both in publique and priuate bu- ſineſſes. 489.a
Braſſe Coronarium, what it was, and why ſo called. 505.b
Braſſe Regulare. ib. called aſo Duſile and why. ibid. a
Braſſe Caldarium. 505.c
Braſſe Campanum. ibid.
Statuaria what temperature of Braſſe it was. 505.c
and why ſo called. ibid.
Tabularis, what temperature of Braſſe, and whereupon ſo named. ibid.
Braſſe Colledancum, what it is. ibid.
the temperature of Braſſe called Formalis. 505.f
the temperature called Ollaria. ibid.
colour of braſſe named Grecanick. 505.f
what verniſh ſaucth Braſſe from ruſt. 506.g
Braſſe ſerueth for perpetuities of registers. 506.g
Braſſe ſcales. 507.c
Braſſe ruſt or Verdegris. 508.b
diuerſe waies to gather it. 508.b
how it is ſophiſticated. 508.i. how diſcerned. ib. k
Braſſe green ruſt or Verdegris, how to be calined and pre- pared for uſe in Phyſicke. 508.k. l. uncalined, what medicinale vertues it hath. 509.a
Bread at Rome different according to ſlates & degrees. 116
Bread thinned. 141.a
Bread downe-right. ibid.
Bread buſket. ibid.
beſies nourishment, what vertues medicinale it yeel- deth. ibid.
ſea-Breams Melanuri, how they feed of crumbs. 429.a
how they beware of a bar within an hooke. ibid.
Breath ſtinking an unſeemely diſeaſe. 239.f
proceeding from corrupt lungs, how remedied. 329.b
what maketh a ſowre and ſtrong breath. 377.a. 441.a
Breath how it may be made ſweet. 64.g. 65.e. 79.a. 105.d. 131.c. 140.i. 156.m. 162.i. 164.i. 174.b. 239.f. 240.g. 304.g. 313.a. 326.k. 328.k. 350.g. 377.a. 441.a. 624.i.
for diſeaſes and paine in the Breaſt, what medicines be ap- propriat. 461. 53.a. 56.b. 66.g. 74.i. 76.l. 120.b. 154.g. 180.l. 182.l. 186.a. 192.l. 193.b. 246.g. 247.c. d. 250.l. 290.i. k. 275.c. 284.b. 289.f.
for Breaſts impoſtumat, remedies. 141.g. 246.g. Suppu- rations in the breaſt how clenſed. 144.b. 216.i
ulcers in the breaſt how healed. 208.g
Breaſts of women ſwell'd how to be helped. 51.b. 54.g. 58.f. 59.f.
for womens breaſts conuenient medicines. 587.f. 589.b
Breaſts or paps of women how they may be truſſed round decently and not hang downe ſlacking. 397.a. b
Breaſts of women newly laid, if they be ſwollen and hard, how to be molliſied and eaſed. 395.c. 437.d.
Breaſts of women ſore and Impoſtumat, remedies therefore. 395.f. 448.b. 589.a. how to be preſerued from ſwellling and the egges. 397.a. from prickling and ſcrouing paine. 397.a. if they be in paine, how to be eaſed. 397.b. 589.a. See more in Women.
Breaſt full of purulent matter, how to be diſcharged. 355.a
Briazus, the name of a god and temple. 464.k
Bricks good, of what clay. 555.c. the beſt ſeaſon for making bricks. ibid.

how

The Table to the second Tome

how old bricke ought to be before it be used in building.
555.d.

Bricke of three sizes, ibid. how according to every size they
be employed in Greece, ib. c. what buildings of perpetua-
lie were made of bricke, ibid. f.

Bridge Sublian or of wood over Tiberis at Rome, framed
and set together without either pin or nail, 581.d. the
reason why, ibid.

Brimstone of wonderfull power, 556.i. k. where the best is
found, ib. c. sure kinds of brimstone, ibid.
Brimstone natural, 556. i. the use in Physicke, ibid.
Brimstone artificial, 556. k. the use of it, ibid.

Broome Amalaxius was wont to make sport at a merry
setting of guests, with brimstone, 556. l.
Broom to hear & comfort the sinewes, how it is made, 413. d.
Broomia, what hearbe, 112. l. the description, ibid. the
vertues thereof, ib. why so called, ib. from whence it is
brought, 269. d.

Brixades, a famous Imageur, 566. l.
Broome, whereof they make thred and net cordage, 4. g.
the Broome Gentilis, for what uses it serveth, 188. g.
Bees delight therein, ibid. 93. d.
whether it be Sparrow of the Greeks, or no, ibid.

Bromes, what it is, 145. a. the description, ib. the medica-
ble properties, ibid.
Bronchecele, what disease it is, and how helped, 142. b.
Bronze, a pretious stone, 625. b.

Bronze, a picture of Apelles his devising & making, 541. b.
Brooklime, an hearbe, 235. a. the description, ibid.
for inward Bruises and clutered blood thereupon, fit medi-
cines, 50. k. 58. b. 64. b. 73. a. 103. b. d. 109. b. 22. k.
123. d. 141. a. 146. l. 157. a. 161. c. 167. f. 192. b. i.
201. f. 226. l. 262. i. 264. g. 277. c. 289. c. 337. d. 349. f.
350. i. 370. l. 412. k. 559. c.

Bryaxis, a famous founder of brasse images, statues, and
colosses, 495. e. his works, 501. c.
Bryon Thalasston, a sea monster, 278. i. the description, ibid.
& 445. b. good for the gout and royns, ibid.

Bryone the white, an hearbe, 149. f. the vertues, 150. g.
Bryonie the blacke, ibid. the vertues, ibid. b. i.

B V

Bubonium, an hearbe. See After. 625. b.
Bucardia, a pretious stone, 625. b.
Buceros, an hearbe. See Penigreeke.
Bunning Buckewheat. See Elatine. 323. c.

Buffles or wild bulls yeeld medicines, 323. c.
Bunflies, an hearbe, 223. d. why so called, ib. wherefore it
is named Euphrasion, ibid.
Bulls how they may be calgn and made to stand still, 169. b.
Bulls blood a poison, the remedies for it, 51. a. 131. c. 168. d.
323. e. 422. k. See more in Blood.

Bulls galls, medicinal, 325. d. for what, 322. b.
Bulls galls medicinal, 73. e.
Bulls galls medicinal, 733. a.
Bulls galls medicinal, 15. l.
Bulls galls medicinal, 19. b.
Bulls galls medicinal, 19. c.

Bulls galls medicinal, 19. c.
Bulls galls medicinal, 19. c.
Bulls galls medicinal, 19. c.
Bulls galls medicinal, 19. c.

Bulls galls medicinal, 19. c.
Bulls galls medicinal, 19. c.
Bulls galls medicinal, 19. c.
Bulls galls medicinal, 19. c.

Bulla, the brooch of gold or pendant tablet, how it first came
up, 455. c.
Bullocks, their vertues, 169. d.
Buildings at Rome in Plinies daies compared with those of
ancient time, 583. b. c.

the Romanes exceeding in sumptuous Buildings, 583. a. b. c.
Bulterion, a publike hall in Cysicum, why so called, 581. c.
the wonderfull frame thereof, 581. d.
Bumastos, a kind of grape, 268. i.
Bunch swelled of the throat, how to be cured, 142. b.

See Bronchecele.
Bunias, what kind of Nauew, 39. a. the vertues, ibid.
Bunio a kind of Nauew, 39. a. the vertues, ibid.

Buphtus and Anthemus, two brethren and imageurs in
marble, 564. l. how they abused the Poet Hippomach Ly
pourtraying him and proposing his image as a laughing
stocke, 564. l. their pride and vaine glory, 565. a.

Bupleuron, an hearbe, 129. c. the description and vertues, d.
Bupleuros, 278. k.
Buprestis, an hearbe, 129. d. whereupon it took that name.
ib. in this hearbe the Grekes are incessant. ibid.

Buprestis, a venomous worme or flie, hurtfull to kine and
oxen, 362. b. 377. d. why it is so called, ib. c. what reme-
dies against the poison thereof, if it be swallowed down,
150. m. 157. c. 160. k. 161. d. 307. f. 315. b. 322. k.
422. j. the use of this flie in Physicke, 362. j. how to
be prepared, ibid.

a Burre described, 99. d.
little Bur, called Lappa Canaria, 206. b. the description, ib.
cl. a Burre, 227. f. the names, d. description, and vertues, ibid.
butter Burre Persulad, 129. c. the names, d. description, and
vertues thereof, 229. c.

for Burns or scalds, proper remedies, 38. i. 42. l. 46. i. 47. e.
d. 70. f. 72. k. 78. a. 103. d. 110. f. 122. k. 123. e. 124. b.
128. f. 129. c. 130. g. 139. b. 140. g. 141. c. 142. b.
146. k. 155. c. 158. b. 160. m. 161. f. 167. e. 170. m.
174. k. m. 175. a. 178. g. 181. c. 184. k. 185. c. e.
190. b. 194. g. 201. a. c. 267. k. 273. c. 274. k.

275. b. 306. f. 352. k. 392. k. 446. b. 473. e.
fish and new made, what is to be applied, 418. l. 419. d.
how it may be kept from blistering, 159. b. 319. d. 327. e.
350. a. 419. d. 587. b. 590. b.

how to be skinned wth without a skore, 168. e. 262. k.
337. e. 392. k. 422. l.
to take out the fire of a burne or scalding, ibid.

if the place be raw how to be skinned, 437. d.
Burnt skins how to be remedied, 438. m.
Burnts shell medicinal, 438. m.

Buthyrus an excellent Imageur, 502. i. his works, ibid.
Bury held for a most damnie meat, 319. a. it distinguisheth
the rich from the poore, ib. whereupon Bury took that
name, 319. a. how it is made, ib. stale and ranke Bury
near marble, 319. b. of what qualitie it is, ibid.

Bury milke. See Chermilke and Oxygala.
Butterflies hurtfull to Bee-hives, 95. d. e. how to be chased
away, 95. d.

Byrthwoon called Aristotelschis, for what cause, 226. g.
it is named Alaym terra, 3. b. foure kinds thereof, 226. g.
their descriptions, 226. g.

Bythius of Dyrhachium, a writer in Physicke, 309. e.
Byturos, a strange beast mentioned by M. Cicero, 309. e.
Cacalia, an hearbe, 246. b. See Carawaies wild.

C A

Cachla, what hearbe, 223. e.
Cachrys, what it is, 193. b. 254. k. of diuerse kinds, 193. c.
Cacizotechnos. See Callimachus.

Cackerils falsed, are medicinal, 442. g.
Cactos, what hearbe, and how it is used, 98. k.
Cadmia, 486. l. of sundry sorts, 506. b. how to be prepa-
red, ibid. k. the medicinal vertues, ibid. l.

Cadmia Capnitis, what it is, 506. i.
Cadmia Botrytis, the best, and why so called, ibid.
Cadmia Placitis, 106. k. the reason of the name, ib. d.
Cadmia Onychitis, ibid.

Cadmia Ostracitis, ibid.
Cadmitis, a pretious stone, 625. c.
Caecilius Bion, a writer, 330. i.
Caeciliana, what kinde of Lettuce, 24. i.

M. Caecilius accused Calphurnius Bestia for murdering his
two wines, 207. g.
Cala a kinde of drinke, 145. b.
Celius, a Romane writer, 494. i.

Celcus, a painter, 549. d. his works, ibid.
Ceria, a kinde of drinke, 145. b.
Ceruleus, a fountain serving Rome, 586. g.
Cala, an hearbe, 278. l. of two sorts, their description and
vertues, ibid.

Calamis, a fine imageur and engraver, 483. c. his works,
501. a.
Calamita certine frogs medicinal, 438. k. their descrip-
tion, 439. b. why so called, 447. b.

Calamochinus, what it is, 450. i. the description and na-
ture, ibid.
Calcefragra, an hearbe, 281. a. See Empetron.

Calcing, how to be performed, 362. l.
C. Caligula the Emperours effeminate apparell, 603. b.
C. Caligula the Emperour his roiall ship flayed by the fish
Echeneis, 426. g. he was killed by his owne soldiers,
ibid. b. he extracted pure gold out of Orpiment, 469. d.

Calixenus, a writer, 575. e.
Callaine, pretious stones, 625. c.
Callais, a pretious stone, ibid.
Callius the Athenian devised first the use of Vermilion,
474. e.

Calliolephara, ointments to beautifie womens cies, 473. e.
Calliolephara, the best oilers, 436. m.
Callierates his passing fine workmanship in stone, 570. m.
Callieus, what hearbe, 202. k. the wonderfull operation
thereof, ibid.

Calligonon, what hearbe, 287. a.
Callimachus, a Poet, 131. b.
Callimachus, an imageur in brasse, famous for his surname
Cacizotechnos, 504. k. why he was so termed, ibid.

Callimachus wrote a treatise of gairlands & chaplets, 82. b.
Callion, what hearbe, 112. b.
Callionymus, a fish medicinal, 438. b. he is named Fra-
noscopus, 438. i. and why, ibid.

Callistita, a rich enfranchised slane, 479. e.
Callisticha, what hearbes, 332. i.
Callistriche, ibid. l.

of Plinies Naturall History.

Callosities, how to be softened and rid away, 108. g. 139. b.
191. e. 320. g. 423. f.
Calphurnius Bestia killed his two wines with the poisonous
hearbe Aconitum, 270. g.

M. Calphurnius Flamma honoured with a chaplet of grasse,
117. b.
Calt. ap. thistle Tribulus described, 98. k. the properties of
it, 98. l.

Calues-shout, an hearbe, 231. e. the description, names,
and vertues, ibid.
Calues yeeld remedies against scorpions, mad dogges, &c.
322. f. their sweet and marrow medicinal, 324. k. m.

their gall used in Physicke, 324. b.
Calous the Orator, why hee used to weare a thin plate of
lead to his backe, 418. l. he complained that kitchen-
veffell was made of silver, 480. l.

Calypto, a woman, a fine paintresse, 551. a.
Camels bodie, what medicines it aoth affourd, 311. b.
Camels brame, gall, taile, what use they yeeld in Physicke,
311. b. c. their dung reduced into asbes, and the haire of
their tailes, 311. c.

Cammaron. See Aconitum.
Campaspe a famous courtizan, entertained by K. Alexan-
der the Great, 539. a.
Canachus an excellent imageur, and his works, 501. d.

Canalium, or Canalisie, what gold ore, 466. m. the man-
ner of getting it and the reason of the name, 467. a.
how it is to be ordered after it is landed up to the pits
month, 467. a.

Canaria, what kinde of grasse, 225. b. why so called, ib.
a Candlesicke of brasse cost 50000 sesterces, 488. k.
K. Candaulus otherwise named Myrsilus, paied, the weight
in gold for a painted table, 533. a.

Canephorus, a virgin, wrought in marble by Scopas, 567. c.
Cantabrica, what hearbe, 224. b. the description, ibid.
Cantharides, a pretious stone, 630. i.

Cantharides taken inwardly, how their venome is to be re-
pressed, 49. m. 71. b. i. 50. l. 157. c. 160. k. 161. d. 318. b.
323. c. d. 364. g.

Cantharides hurtfull to the bladder, 361. e. how they are to
be taken and used in Physicke, ibid. their wings medica-
ble, 362. g. Physicians agree not where their venome li-
eth, 362. g. how they be engendered, ibid. diuerse kinds
of them, ibid. their description, ibid. b. how to be prepared,
ibid. their nature and operation, ibid.

Cantharides held at an high price by Cato Pricensis, 362. i.
Capers, how, where, and when, to be sowed and set, 30. b.
Capers of Italy harmlesse, 62. l.

Capnites, a pretious stone, 625. c.
Capnos, what hearbe, 236. l. the description, ibid.
Caprarieus, what it is, 518. b.

Carawaies, why so called, 30. b. how & where they grow, ib.
wild Carawaie Cacalia described, 232. l. the operation, ibid.
Carbuncle, a pretious stone, 616. b. it hath the name in
Greece of fire, and yet fire hath no power over it, ibid.

Carbuncle, a disease when it first came into Italy, 241. d.
the manner thereof, and the accidents accompanying and
following it, 241. d. e.
Carbuncles how they are brought to maturation, broken,
and cured, 56. k. 58. b. 69. a. 70. l. 134. i. 143. b. 144. g.
148. k. 158. k. 160. g. b. 163. e. 167. e. 172. i. 183. d. 193. d.
260. i. 392. b.

K k k

Carbun-

The Table to the second Tome

Carbuncles how to be cooled,	448.g. 599.e	Cassius Aelius a Consul of Rome served with earthen vessels	
Carcinias, a pretious stone,	630.i	at his owne board, 481.b. he refused siluer plate pre-	
Carcinetron, what heerbe,	287.b	sented unto him, ibid. had neuer in siluer more than two	
Cardiacke passion, what it is,	153.c. what medicines be	drinking cup,	481.b
good for it, ibid. 154.m. 196.b. 446.f.		Canavica, what snail,	380.k
	152.k	Caucalis, what heerbe,	130.i
Caries in wine, what it is,		Cancon, what heerbe,	247.e
Carnades the Philosopher purposing to answer Zeno, pur-	217.f	Casilus, a kinde of Luser,	9.a
ged his braine first with Ellebore,	13.e	Caulodes, a kinde of Colewort,	48.k
Carnosa, what they be,	172.d	Causticke medicines, or potentiall canteries, 50.i. 56.k. 61.a	
Carobs, their properties good and bad,		65.a. 74.i. 109.f. 134.b. 162.b. 168.i. 172.b. 191.e	
a Carob tree alwaies blossoming about a certaine soumeine,		207.b. 223.f. 239.d. 252.i. 267.c. 280.d. 281.c. 286.m	
405.c.	18.g	362.b. 377.d. 385.e. 418.f. 443.c. 450.i. 485.b. 521.b	
Carot or Dawke,	228.m	595.f.	
Carrots of foure kinde: or rather of twaine,	229.a	Canterie allwaile of yron, what operation it hath,	516.g
Corot of Candie described,	ibid.	Cauterizing of a bodie performed by the meanes of a chry-	
wild Carot where they grow,		stall glasse,	605.b
Carpassum, the iuce of it is poison, 436.b. the remedie	ibid.	Canteries potentiall. See Cansticke.	
against it,		C E	
Carpathum yeeldeth a venomous iuce, 323.a. the remedie	ibid.	Cedrelate, what kinde of Cedar,	179.c
for it,	415.a	Cedrat, what rosin, ibid. the strange properties that it hath,	
Carrybe, a citie built all of silt,		ib. the discommodities of it, ib. the danger in vsing it, ibid.	
the huge Carriack that transported an obelisk out of Egypt,		Cedrides, what, 179.e. the vertues,	149.c
funke of purpose in theauen of Ostia, for the sake of	575.e	Cedrotes, what plant,	ibid.
the harbour,		Celendine the great, an heerbe, 224.m. why called Chelido-	
Carnilius Pollio his wastfull excessse in garnishing and ma-		may, ibid. two kinde and their description,	225.a
king both tables and beds of siluer,	481.d	Celendine the great, soweraigne for the eyes,	234.g
Carnilius a famous brasse-founder in Italie,	495.e	Celendine the lesse, 325.a. the iuce of Celendine when to be	
Caryatides, what images,	569.f	drawn, ibid. the vertues thereof,	ibid.b
Cassidone, or Cassidone, a faire stone, whereof cups and o-		Celeres at Rome, who they were,	461.a
ther vessels were made, 454.i. See Onyx, or Onychitis,		Celeres, horse runners in Greece,	490.l
Cassidone stones how to be chosen,	604.b	Celsus, a writer in Physicke,	400
their sundry kinde,	ibid.g	Celiberice, what they were,	462.g
a Cassidone cup of great price,	603.c	Celice, what they were,	ibid.
Cassidone vessels from whence it cometh,	ibid.f	Cement made very strong of earthen postcards broken, 554	
the stone whereof they be made, described,	604.g	a Cement to solder broken glasses,	353.e
Cassius Hemira, an Historiographer,	345.e	Cemos, a magicall and amorous heerbe,	278.k
Sp. Cassius his statue pulled downe and melted by authori-		Cenebris, a venomous worme,	75.d
tie, and wherefore,	493.b	the remedie against it,	ibid.
Antonius Castor, a notable Herbarist and Physician, 210.i		Cenchrites, a pretious stone,	630.k
his garden, ibid. his age and health,	78.d	Cenchron, a kinde of diamond,	610.b
Castor, a writer in Physicke,		Cendia, a riner in Phoenice famous for the matter of	
Castor, a beast. See Boeuer.		glasse,	597.b.c
Castoreum, what it is, 430.k. how prepared against sundry		Centurie the greater, an heerbe, 220.d. why so called, ibid.	
poisons, 431.a. b. the ordinarie dose of Castoreum, 431.b		named also Chironium, and wherefore, ibid. a wonderfull	
Castoreum medicinable otherwise,	438.b. 442.g	incarnative and healer,	221.a
Catagusa, an image of Praxiteles his making,	500.k	Chiron the Centaure healed by it, 220.i. the description, ib.	
Catanance, 298.k. an amorous heerbe,	ibid.	where the best groweth, 220.m. Iuce drawne out of it in	
Cataract or suffusion of the eyes what remedies proper for it,		manner of Lycium,	221.a
105.b. 106.b. 198.m. 233.f. 237.b. 306.g. 312.g. 314.k. l		Centurie the lesse, an heerbe, ibid. a. the sundry names it	
316.g. 324.k. 366.i. k. l. 367.b. c. 419.a. 431.e. 432.k		hath, ib. why called Lepton, ibid. why Libadion, ibid. the	
433.f. 509.a. 557.d.	533.b	description, ibid. b. why called the gall of the carth, ibid. b	
Catagrapha, what pictures,		when to be gathered, ibid. why the Gauls call it Exacos,	
Catarrhis falling to the throat and chest, with what medi-		ibid. the vertue, ibid.	266.l
cines stined,	378.b. 352.g. 350.l	Centaurus, an heerbe of the kinde of Centaurie,	221.b
Catarrhis violent, by what meanes they are restrained, 154.g		why called Triorchis,	ibid.e
156.g. 173.e. 183.g. 194.f. 286.f. 287.d.	362.i	Centauris, another heerbe,	258.k
Caro Viscensis ended for selling Comharides,	48.k	Centipeda, what worme,	381.a
Caro a writer in Physicke and naturall Philosophie,		Centipello, what it is,	321.e
Cars-hare a fore. See Felons.	625.c	Centuncapite, the white Eryngium or Sea-huluer,	119.b
Carochites, a pretious stone,	625.d	wonders reported by it,	ibid.b.c
Caropyrites, a pretious stone,	193.f	Centunculus an herbe, 199.d. the description & vertues, ib.	
Centaurle, how to be secured from all harmes.		Cepaa,	

of Plinies Natural History.

Cepaa, an hearbe. See Brookelime.		Chalcitis, a kinde of alume, 558.k. why so called.	ibid.
Cephisti, a lake, 606.l. called otherwise Elestis,	ibid.	Chalco-smaragdos, what kinde of Emerald,	613.a
Cephissodorus, a cunning imageur, and his worker,	501.d	Chalcophonos, a pretious stone,	625.e
567.b. some of Praxiteles,	ibid.	Chalcoptenes, a famous potter or imageur in clej at Aibet	
Cepionides, pretious stones,	626.b	552.k.	
Cepites, a pretious stone,	625.d	Chalcus, what it is in weight,	113.c
Cepocapites, a pretious stone,	ibid.	Chalke of Rhodes causeth wine to be sooner refined,	176.i
Cerachates, a pretious stone,	623.e	Chalke of many kinde,	560.b
Ceramicum, a famous streete in Athens, 552.k. whereupon	ibid.	Chalke used for to marke the feet of bondslaves, to be bought	
it took that name,	625.d	and sold in markets,	560.l
Ceramites, a pretious stone,	625.d	Publius the rimer, Manilius Antiochus the Astrologer,	
Ceraistes, a venomous serpent, 62.k. the remedies against it.		and Taberius Erotas the Grammarian, slanes marked	
62.k. 158.g. 183.b. 418.l. 431.b. 434.g.	250.b	with chalke, and came ouer all three to Rome in one ship	
Ceratia, what heerbe,	ibid.m.	together,	ibid.m.
Ceratis, a kinde of wilde Poppie, 68.m. why so called,	69.a	Chamabatos, an herbe, 196.l. the description, ib. why called	
Ceraunia, a white pretious stone, 522.m. the description of		Neurospistes,	ibid.
it, ibid. the diuerse kinde, 623.a. their properties,	ibid.	Chamacissos, an herbe, 190.l. the description, ib. the medici-	
which of them be called Benuli,	ibid.	nable vertues thereof, ibid.	199.a
Ceraunia, another pretious stone which Magicians onely		Chamecissos, a kinde of Cyclamine,	229.f
can find,	623.b	Chamecyparissos, an heerbe, 199.b. the description,	ibid.
Cerannium, a kinde of Musbrome or Toadstole,	7.f	Chamadaphne, what heerbe, 110.m. the vertues,	ibid.
Cerannobolos, a picture of Apelles his making,	541.b	Chamelea, what hearb, 198.k. the description, ibid. the ver-	
Ceremonies and circumstances obserued in gathering and		tuies, 198.l. the iuce of Chamelea,	223.a
using sundry medicines,	106.b. 112.g. 122.k. 125.a	Chameleon, an hearb, 123.f. two kinde of it, ibid. why so	
126.l. 142.m. 164.b. 165.e. 168.b. 169.a. b. 170.i. k.		called,	124.g
173.f. 188.i. 198.l. 205.b. c. d. e. 206.m. 217.d. e. f.		Chameleon, a beast, 315.b. it affoordeth many medicines,	
228.b. i. 234.l. 238.k. 245.d. 252.g. 256.i. k. 260.i		ibid. Democritus wrote a booke of this beast and the ana-	
283.c. 286.g. 330.k. 368.m. 381.a. 390.k. l. m. 391.a		tomie thereof, ib. the description, ibid. Chameleon most	
392.f. 515.e. f.		fearfull and therefore so mutable, ibid. aduerse to hawks	
Cerithes, an heerbe and flower, 93.e. the description,	ibid.	and all birds of prey,	315.b.c
Cerites, a pretious stone,	625.d	Chamence, what herbe, 199.a. the vertues thereof,	ibid.
Ceron, a spring, 403.c. the water of it maketh sheepe		Chamamelon, See Chamamile.	
blacke,	ibid.	Chamapence, an heerbe, 199.b. the description,	ibid.
Cerrus, a kinde of great oke,	178.k	Chamapitys, what heerbe, 181.e. what other names it hath,	
Ceruffe, a very poison being taken inwardly,	526.l	ibid. the diuerse kinde and their description, ibid. the ver-	
the remedies against it,	136.i. 160.k. 168.j. 181.b	tuies,	ibid.
Ceruffe how it is made,	520.k	Chamapitis, the name also of the heerbe Hypericon, 255.a	
Ceruffe burnt, a painters colour,	528.k	Chamarops, what heerbe, 248.i. the description,	ibid.
the occasion how it was first burnt,	529.e	Chamacysse, an heerbe, 198.l. the description,	ibid.
Ceruffe-purple, what price it beareth, 529.e. how it is		Chamazelen, what heerbe,	228.f
made at Rome,	ibid.	Chamamile an heerbe, 91.d. the description, ib. how it flow-	
Ceruffe, how it is used for a blaunch or white complexion,	520.l.	eth, 99.c. the sundry names that it hath, 125.c. d. why	
Cestron. See Betonie.		it is called Chamamelon, ib. three kinde of it,	ibid.
Chareas an imageur, 502.e. his worker,	ibid.	Chaplets of gold and siluer foiles representing floures of the	
Chareas, a writer of simples,	79.a	garden,	81.a
Chains of gold bestowed by Romans vpo auxiliaries, 461.b		Chaps in the fundament, feet, and elsewhere. See Fissures.	
of siluer vpon naturall citizens,	ibid.c	Charcole once quenched, gine the greater heat afterwards,	
Calamine. See Cadmia.		472.i.	
Chalastrium, or Chalcitricum, the best kind of nitre, 420.i		Charcole and their nature,	599.b
the use thereof,	421.v	Chares, a famous imageur and founder in brasse,	495.e
Chalazius, a pretious stone,	630.k	Chargers of siluer weighing one hundred pound weight	
Chalcantium, what stone,	592.g	apeece,	481.f
Chalcanthum. See Vitrioll.		a Charger of fine hundred pound weight in siluer,	ibid.
Chalcetum, what heerbe,	248.g	Charis. See Apelles his grace or Venus.	
Chalcidice, venomous worms, 431.b. called also Sepe, ibid.		a Charriot of clej, growing bigger as it was baking in the	
the remedies against their venom,	431.b. 434.g	furnace, what it betokened,	296.g
Chalcites, a pretious stone,	631.a	Charriots with horses, what Imageurs delighted to cast in	
Chalcitis, what it is, 486.m. how it differeth from Cadmia,		brasse,	503.e. 504.g
509.d. where it is engendered, ibid. 509.e. the description,		Charms condemned by Plinie,	213.e
ibid. the medicinable properties,	509.e. f	Charms whether they be effectuall in witching serpents or	
		no, 296.k. why serpents seeme to auoid them and shrinke	
		away,	ibid.

The Table to the second Tome

Charmes for looe, 296. k. for skayfres, ibid. l. for staunching bloud, ib. m. for the sciatica or the gout, ibid. for dislocations or bones out of joint, ibid. for the spleene, 381. d.
 Charms for sundry diseases, 109. c. 206. b. 207. a. 256. i. 285. a. 289. c. 296. k. l. m. 301. d. 310. b. 316. g.
 Charmes of looe how to withstand, 316. g.
 against charmes & encharments, 52. b. See more in Words.
 Caesar Dictator, neuer set forward in any journey without pronouncing a certaine charme, 279. a.
 three Charms, images in marble at Athens of rare workmanship, 396. a.
 M. Charms a M. Arrian, professed Physick at Rome, 335. b.
 he condemned hot baines, and brought in bathing in cold water, 345. b. he was gained to haue 200000 sesterces for one cure, 348. g.
 Chast-tree, 257. c.
 Chaff, how selke may be made, that were loofe and wantonly given, 314. b. 316. m.
 Chaws sweeted how to be asswaged, 158. i. See Throat.
 Cheese is medicinable, 318. l.
 Cheese of mares milke used in Physicke, 318. k. l.
 Cheese greene, fish, and soft, ibid.
 Cheese old and hard for what it is good, 318. l. for what it is hurtfull, ibid.
 Cheese rotten, putrified, and mouldie, in what case wholesome, 318. m.
 Cheese sowre medicinable, ibid.
 Cheese how it may be kept safe from the mouse, and also worme, 339. b.
 Chelidonia, a pretious stone, 625. e. two sorts of it, ibid.
 Chelonia, the Tortoise eie, held for a pretious stone, 625. e.
 630. k. the ignorant tell strange things of it, 625. f.
 Chelonides, pretious stones resembling Tortoises, 625. f.
 Cherries, 171. a. their properties, ibid. how they doe bath faces, and bind the bellie, 171. a.
 Chermulke. See Oxygala.
 Chermites, a pretious stone preserving dead bodies, 587. c.
 in one of them Darius the K. was interred, ibid.
 Chersiphron, a famous architect, 580. k. he reared the frame of the temple of Diana in Ephesus, ibid.
 Chersidris, perillous snakes or adders, 119. a. remedies against their poison, ibid.
 Chersule an hearbe, named Pederos, 31. b.
 Chersule rootpicke named Graigidum, the properties that it hath, 41. a.
 Cheeslips, certaine wormes, 123. k. against their malice, medicines, 138. k.
 Chestnuts their medicinable vertues, 172. l.
 Chibbols, 20. g. k. l.
 Chickweed an hearbe. See Alfine.
 Chiblanes, what medicines be good for them, 37. d. 50. g.
 58. a. 64. m. 70. k. 76. g. 148. l. 158. l. 160. b. 163. l. 171. c.
 174. l. 183. l. 277. d. See Blandsfulls.
 against chibling cold, what remedies, 54. i. 148. g. 169. f.
 173. e. 186. i. 218. l. 260. k. 305. c. 354. l. 387. c. 422. i.
 625. a.
 Childen pissing bed, how to be helped, 398. b. See Urine.
 Chitodimant, an hearbe. See Polemonia.
 Chincough in children, what remedies for it, 56. g. 105. b.
 315. a. 398. g.
 Chios earth medicinable, 559. f.
 Chirocineta, what booke, 203. a.

Chironia, what plant, 150. i. what other names it hath, ibid.
 Choking in young birds how to be prevented, 206. g.
 Choking by bone how to be avoided, 302. d.
 Choking by bread going wrong, how prevented, 302. m.
 Choler rising up into the mouth and causing bitternesse, how to be repelled, 148. g.
 Choler what medicines purge downward, 39. a. 48. b. 75. c.
 110. l. 111. f. 121. a. 140. b. 162. i. 171. c. 182. b. 186. g.
 198. l. 216. i. 218. i. 247. c. 250. k. 251. a. b. c.
 252. b. 284. i. 288. g. 442. i. 443. a. 273. c. 275. b.
 277. a. 281. b. c. 291. b.
 Choler blacke and adust, what purgeth downward, 412. m.
 Choler, a disease, 463. i. what remedies for it, 46. k. 55. c.
 59. b. 70. m. 141. f. 147. b. 148. g. 163. c. 195. e. 196. i.
 287. c. 413. c.
 Chosaspes a ruler in Persia whereof the KK. drinke, 406. l.
 Chosaspes, a pretious stone, 626. g.
 Chondris is basilius Dictamine, 249. e.
 Chondrylle, or Condryllon, an hearbe, 131. e. the description, ibid.
 ibid. the vertues, ibid.
 Chloritis, a pretious stone of a grasse greene colour, 626. g.
 where it is found, ibid.
 Chlos, a kinde of Emerald, 612. m.
 Chrysanthemon, an hearbe, 110. b. the description, ibid.
 Chrysanthus, a writer in Physicke, 128. i.
 Chrysopra, what hearbe, 256. k.
 Chrysippus, an excellent Physician, 242. k. he dealt onely in he. a. 60. 242. k. he wrote a booke in praise onely of Colonnas,
 Chrysippus a Physician altered the whole course of Physicke, 344. g.
 Chrysis, a pretious stone. See Chalcasius.
 Chrysos, an hearbe and floure. See Chrysocome.
 Chrysus, the best in charge of gold, 474. i.
 Chrysoberyll, what pretious stones, 613. c.
 Chrysocarpa, a kinde of Lue, 190. g. what vertues it doth afford, ibid.
 Chrysocolla. See Borax.
 Chrysocome, an hearbe bearing a faire floure, 89. d. the vertues thereof, 106. i.
 Chrysocolochanon, what hearb, 279. e. two kinds thereof, ibid.
 the vertues, 626. g.
 Chrysolampis, a pretious stone, 630. l.
 Chrysolub, a pretious stone, 626. g.
 Chrysopsis, a pretious stone, 630. l.
 Chrysoprassus, a pretious stone, 619. d. the description, ibid.
 the use, and where it is found, 630. l.
 Chrysoprassos, a pretious stone, 613. c.
 Chrysoprassos, a kinde of Beryl, 237. c.
 Chrysosibales, what hearbe, ibid.

C I

Cicerulum, a kinde of Sinopre, 528. l.
 Cicronian baths or hot springs soveraign for the eyes, 401. f.
 Cich pease, and the properties that it hath, 142. k.
 Ciches Columbine, their vertues, 143. a.
 Cichling, and the properties that it hath in Physicke, 142. l.
 Cichorie the herb, the sundry kinds, 24. l. their vertues, 48. g.
 Cichorie wild, 47. d. the properties in Physicke, ib. it is called Chreston and Pancration, wherefore, 47. f.
 Cichorie wild of Egypt how employed, 97. a.
 Cichorie of the garden, 48. g. the vertues thereof, ibid.
 Cici. See Cicin.

Ciculin

of Plinies Natural History

Cinolia chalte of two sorts, 560. b. both medicinable.
 560. b. a kinde of it called Sarda, and why. ibid. i. for what it is good, ibid. See Fullers earth.
 Cimon, a cunning painter, 533. b. hee devised the pictures Catagrapha, and other curious points about them, ibid. c.
 Cinedi, the onely fishes all yellow, 451. d.
 Cinadia, what stones they be, 368. i.
 Cinadia, pretious stones, 625. d.
 the foreflew stormes and faire weather, ibid.
 Cinnabari or Cinnabaris of the Indians, what it is, 476. g.
 an excellent colour for painters, ibid. The same that Minium, ibid.
 Cinnabaris of another kind, good in Physicke, 476. g. b.
 Cinquefoile the hearbe, described, 228. l. the diuerse names that it hath, ibid. the assinitie betwene it and the vine, ibid. the use thereof, ibid.
 Circe, a famous witch, 210. k. canonized a goddesse therefore, ibid. her feat, 372. k.
 Circum an hearbe, 278. m.
 Circeion, an hearbe. See Mandragora.
 Ciroas, a pretious stone, 625. d.
 grand-Cirque at Rome made by Caesar Dictator, 581. e.
 the description of it, ibid.
 Cirson an hearbe, 279. a. the description and vertue, ibid.
 Cissanthemos, a kinde of Cyclamine, 229. e.
 Cissites, a pretious stone, 630. k.
 Cissos Eribranos, what plant, 190. k. the vertues, ibid.
 Cisterns, how to be made for to hold water, 594. b.
 Cistibos, a plant, 190. k. the medicinable vertues thereof, 190. k. the sundry kinds and their description, ibid.
 Ciron and their medicinable vertues, 154. i.

C L

Claudius Casar put a gentleman to death, for hauing the serpents egge about him when he pleaded in the bar. See Argimnum.
 Clean, a spring of water, 404. g. why so called, ib.
 Clarie the wild an hearbe, 256. l.
 the first Classis at Rome, how valued and taxed, 463. m.
 Clauer hearbe, 232. c.
 Cleantes, a painter, who drew first the lineaments of a Ladie in blacke, 525. c.
 Cleomporus, a Physician, 131. d. 202. m.
 Clema, what hearbe, 237. b.
 Cleonatis, an hearbe, 191. a. the description, ibid.
 the effects in Physicke, ibid.
 Clematis, called in Latine Centunculus, 199. e.
 Clematis, a common name to many hearbs, 199. e.
 Clematis of Egypt, 200. g. the sundry names that it hath, ibid. and 202. m.
 Cleon a painter, 549. d.
 Cleopatra the Quene, how shee made sport with Antonie by a coronet of floures, 82. i.
 Cleophrantes, a Physician and writer, 200. k. hee brought in first the use of wine in Physicke, 243. c.
 Cleophrantus a painter, who first portrayed a personage in colour, 525. c.
 Cleides a painter, famous for the picture that he made of quene Stratonice, 549. e.
 Clepsippus, a brass-founder, how he plaid his part with dame Gegania, 488. l.
 Cliduchus an image wrought by Phidias, 497. d. by Enphranor, 502. b.

Clinice, what kinde of Physicke, 344. g.
 Clinopodium, an hearbe, 199. c. the sundry names it hath, ib.
 Clitorius, a water which easeth longing of wine, 403. e.
 Clivers, what herbe, 206. g. why called Philanthropos, ib.
 the effects that it worketh in Physicke, ibid.
 Clodian plate, 480. k.
 P. Clodius what he paid for one house, 582. i.
 Clodia, a virgin, honoured with her statue on horsebacke in Rome, 492. i.
 Clupean earth medicinable, 501. d.
 Clymenos, an hearbe, 221. d. why so called, ibid. the description, ibid. c. both hurtfull and wholesome, 221. d. the iuce medicinable, ibid. e.

C N

Cneoron, an herbe, 90. b. two kinds thereof, ibid.
 Cnicus or Cici, an hearbe in Egypt, 97. c. the diuerse kinds and the oile that it yeeldeth, ibid. 113. c.

C O

Coaches all of silver, 480. l.
 Coccum Guidum the berrie described, 280. k. the nature and vertue of it, ibid.
 Cochlicas what they be, 421. b.
 Cochlides, what pretious stones, 631. b. how they be ordered in Arabia for inlaid workes, ib. c. their sundry uses, ibid.
 an old Cocke how medicinable, 359. c. how a cocke shall not crow, ib. d. cockes, capons, and such like pullen, what medicines they doe afford, 319. b.
 Cocke broth medicinable, how it was made, 359. d.
 Cocks-combe, an hearbe, 275. c.
 Cockles good to expell granell, 444. b.
 Cods if one hang downe lower than the other what remedie, 445. a. Cods swelling by what means helped, 52. l. 61. e.
 62. g. 76. k. 103. b. 106. m. 107. f. 128. g. 256. g. See more in Genetours.
 Codiaminon, when it floureth, 92. g.
 C. fins of cley for a dead corps, 523. d.
 Colan, what kinde of Asie, 485. a.
 Colchicon a poison, the remedie against it, 318. b.
 Cold poison, 180. m.
 Colds extreme, how to be assuied or endured, 160. k. 189. c.
 191. b. 260. k. 289. d. 449. a.
 Cold fits in agues how to be shortened or put by, 173. f. 189. e.
 289. d. 422. l. 424. g. 446. g.
 Colique how to be cured, 53. a. 55. e. 62. b. 129. f. 141. c.
 144. i. 383. c. d. e. 439. c. 511. e. 519. c. 521. a. 558. l. 590. g.
 104. l. 139. e. f. 163. c. 165. b. 167. d. 169. d. 171. f. 182. b.
 190. b. 253. d. 313. b. 318. g. 332. i.
 Colique, when it first began at Rome, 242. g.
 Colliquation. See Consumption.
 Collyria, a kinde of Burrets. 441. a. their description and medicinable vertues, ibid.
 Collyrie of saffron, 105. a. other collyries, 133. c. 147. b.
 for Collyries appropriat species, 160. g. 163. a. 197. c. 236. l.
 270. m. 272. k. 285. l. 350. i. 351. d. 356. b. 419. a. 430. g.
 471. c. 474. b. 575. a. 506. k. 508. l. 510. k.
 Colocasia of Egypt, 96. l. See more in Cyanos.
 Colostrati, what infants, 317. b.
 Colostrum, what it is, ibid.
 Coloto, what lizard it is, 361. b.
 Colotes a famous painter, 532. m.
 Colours in painting, which be gay and linety, 521. i. which be ad. l. d. and dink. b. ibid. the Colours foure which the

KKK 3

The Table to the second Tome

the best painters used, what they were. 352.f
Colossi, giantlike images. 495.a
Colosse of Iupiter in the Capitoll, by whom erected. 495.e
the Colossian images at Rome of Apollo and Iupiter Poni-
peianus. ibid.a
Colosse of Hercules at Tarentum wonderfully made. ib.b
Colosse of the Sunne at Rhodes senentie cubiti high all of
brasse. ibid.c
Colosses made by Italian workemen as well as by stran-
gers. ib.e
Colosse of Apollo at Rome, an excellent peece of workeman-
ship. ibid.
Coluber, a water snake, 435.b. the efficacie thereof in hun-
ting crocodiles, ib. he is called in Greeke Enhydris, 440.k
his teeth are good to skavie the gums for toothach, ib.
Comagenum a sweet composition, 354.k. why so called. ib.
how it is made, ib. l. m. the vertues. 354.l
Comagene an hearbe and a countrey. 354.l
Combretum the hearbe and floure, 853.f. the vertues, 104.i
Comfrey the hearbe, 249.b. See Cumfrey.
Comptatini festival holidays instituted by K. Serv. Tul-
lius upon what occasion. 599.d
a Complexion for a red. See Fuk.
against compositions and mixtures in Physicke, Plinie in-
veigheth, 137.c. 348. n. k
Conception of men children, how to be procured, 79.a. See
more in Boies.
Conception by what means it may be helped. 36.i. 40.l
43.c. 62.k. 130.k. 178.i. 279.b. 339.e. 340.l. 341.a
396.g. 399.a.
what hindreth Conception. 58.k. 179.d. 360.b
Conchylium, a shellfish, the blond whereof is medicinale.
439.e. 130.b
Concilium, what hearbe. 99.d
Condrylla, an hearbe. 411.d. the manner of carrying
water by them from the head of the spring. 411.d
the Conduits begun by Caligula the Emperour, and fini-
shed by Claudius his successor, were wonderfull. 585.f
the charges of making those conduits, with their mani-
fold uses. 586.g
Colewort. See Coules.
Come, an hearbe. See Tragopogon.
Condurdum, an herb. 245.e. the description and vertues. ib.
Conferua, what it is, 280.b. a wonderfull cure done by it. ib.
Coniurations, whether they be of power to raise thunder and
lightening. 295.c
Coniurations of sundry sorts, 313.e. how they may be preven-
ted and withstood. ib.
Consligo, i. Bearfoot an hearbe. 224.i
Consumption of the lungs, 422.m. See Phthisicke.
Consumption of the whole bodie by lungs, hellicke fever, or
otherwise, how to be recovered. 1343. 259.e. 310.m
Conyza an hearbe, 90.m. two Kindes male and female, and
their description. 91.a. 267.e
Coponius, a cutter in stone. 570.i. his workmanship. ib.
C. Coponius condemned for sending an earthen ampore to
one for his voice at the election of magistrates, 553.f
Copper how to be calcined and washed, 507.a. b
Coracini, fishes medicinale. 435.f. 438.i
Corallis a pretious stone, 625.d
Corall highly esteemed among the Indians, 429.d. where

the best is to be found, ib. how it is gotten forth of the
sea, ib. whereupon it is named Curallum, ib. in great ac-
count among the priests and wisards of India, 429.f
it resisteth the power of fire, 430.g. how the Frenchmen
use it, ibid. how it is become scarce, ibid. the medicinale
vertues of corall. 430.g
Corallo-Achates, 623.e. called the sacred agath in Candie.
ibid. the vertues. ibid.
Corallo-achates a pretious stone, 625.d
Corchoros. See Pimpernell.
Corchorum, an hearbe much used by the Egyptians. 113.b
Co: diall medicines, 41.b. 119.c. 130.i. 247.e. See Con-
terpoisons.
Cordyla the Tunie fish, when so called. 451.d
Coriacea, an hearbe, and the admirable nature of it, 102.k
Coriander an hearbe, 70.k. the vertues thereof, the best com-
meth out of Egypt, ibid.
Coriander rectified and corrected by wine, 153.b
the strange effects that Coriander worketh as touching
womens teames, 71.a
Corinthias. See Alentis.
Corinthian works, 496.k. so much esteemed that many ci-
rie them where soever they went, ibid.
Corinthian gallerie at Rome, 489.b. why so called, ibid.
Corion, what hearbe, 255.a
Coris, what hearbe, ibid. b
Coke tree, what vertues medicinale it hath, 178.l
Corns of the feet or elsewhere, how to be cured, 38.g. 65.d
76.m. 103.a. 105.d. 134.g. h. i. k. 139.b. 141.i. 143.a
180.k. 186.l. 235.m. 302.l. 320.g. 334.f. 356.l
Cornaline a pretious stone. See Sarda and Sardoin.
Corne, what vertues in Physicke it doth efford, 137.f
Corolla, and Corollaria, what they were, 80.m
Coronarium, what kind of brasse, 479.a
Corone and Coronets, 80.i. the originall of these teames, ib.
Coroners of gold bestowed upon Komae Citizens for good
service in the wars, 461.c. by whom given first. ibid.
Coronopus, what hearbe, 68.m. 124.i. k
Corpulence how it may be procured, 152.m
Corroborative medicines, 152.g. 178.k. See more in Cordials
and Counterpoisons.
Corrosive medicines, 159.f. 160.g. 168.i. 191.f. 286.f. 338.i
441.d. 447.e. 516.k. 521.a. See Cansticke.
Corynda, the wild Sperage, what other names it hath, 25.i
53.c. the vertues. ib. hurtfull to the bladder, 468.i
Corrugi, what they be, ibid.
Corser, pretious stones, 631.c. their properties. 625.d
Corseides, a pretious stone, 405.d
Corycia, certaine canes. 32.g
Corymbi in Fern'a, what they be, ibid.
Corymbus, what it is.
Corythia, three fishes. See Colycia.
Coffi, what woines, 261.f
Coffinus killed with a potion of Cantarides, 261.f
Coticula. See Tuncel stone.
Cotonea what hearb, 248.h. the description and vertues. ib.
Cotton and the shrub that beare it, 3.e. f
Cotton found in certaine fruits, as Apples and gowds. 42.g
Cotton-weed. See Cudword.
Cotyledon, an hearbe. See Umbilicus Veneris.
Coughwort, what hearbe, 246.i
Cough brisie in the nght, how to be stilled. 329.b
for

of Plinies Naturall History:

for the Cough, remedies appropriat, 37.b. e. 39.b.
41.d. 41.e. 42.f. 43.c. 44.i. l. 52.g. 56.b. 57.d. 60.l
61.a. 63.c. 64.i. 66.g. 67.d. 72.b. m. 75.a. b. 101.e. 104.b
105.a. c. 107.d. 108.k. 110.g. 122.g. 123.c. 128.i
134.k. l. 136.f. 138.m. 141.c. 144.b. 145.a. 148.k
151.d. 153.e. f. 154.g. 156.g. 158.b. 159.a. 167.d
171.f. 172.g. k. 173.b. 179.f. 180.g. l. 182.g. m
183.d. e. 184.b. 186.f. 191.c. f. 192.l. 193.c. 194.b
195.d. 197.d. 198.i. 199.b. 200.k. l. m. 208.g. 219.e
245.f. 246.g. b. i. k. 247.d. e. 249.e. 263.d. 275.c
284.b. 287.f. 290.i. 303.e. 304.g. 305.b. 315.a. 319.d
329.a. 333.k. 352.g. 353.a. 380.l. m. 381.c. 382.i
419.e. 422.k. 442.i. 521.a. 557.d.
Coules or Coleworts of three Kindes, 26.g. 49.e. when to be
sowne, set, and cut, ibid. how they will cabbage and grow
faire in the head, ibid. how they will prone sweet in tast,
ibid. how to be danged, ibid. k
Couleworths of sundrie countreys, ibid. k
the crops or Couleworths called their Cyma, how to be cut,
ibid. m.
the commendable of properties Couleworths, 48.j. k
Couleworths contrary to wine, 49.e. how they bind and loo-
sen the bellie, ibid. their discommidities, 50.k
Couleworths may not abide either Organ, or Cyclamine, ib.
Countercharmes or preservatives against swerres, witch-
craft, enchantment, and Magicke, 149.e. 195.e. 229.d
300.k. 306.m. 310.b. 313.b. f. 320.k. 322.m. 357.a
364.g. 387.a. b. 430.g. 431.e. 433.f. 370.j. 515.e. f
589.a. 609.a. 619.e.
Counterpoisons, 38.k. 39.a. c. 45.e. 56.l. 59.b. 71.e. 107.c
144.i. 160.k. 164.i. 169.e. 172.b. k. 174.m. 186.i
190.m. 192.g. 193.e. 200.l. 202.l. 215.c. 227.b
233.b. 246.g. 270.i. k. 288.i. 306.m. 314.g. 316.l. 321.e
323.a. b. c. d. 336.g. 364.g. 631.a. e. c. 433.e. 434.g. i. l
435.b. 437.d. 529.b. 610.m.
poisons how they become Counterpoisons, and the manner of
their working, 270.b

C R

Crabfishes, 435.d. their vertues medicinale, ibid. enemies
they be to serpents, 435.e. 436.i
Crambe the best kinde of Couleworths, 48.k
for Crampe in feet or legs a remedie, 305.b
for Cramps in generall, convenient medicines, 40.k. 41.d. e
44.k. 46.j. 48.g. 49.e. 50.b. k. 52.k. 50.e. 60.l. 61.a
63.a. 64.k. 67.d. 72.l. 74.i. 75.b. 77.c. 102.g. 104.b
108.k. 119.g. 123.a. 128.i. m. 129.b. e. f. 134.l. 150.g
154.g. 191.c. 162.b. 167.f. 168.g. 179.f. 180.g. 182.l
183.e. 186.k. 191.e. 193.c. 194.k. 198.i. 199.e. 219.d
226.l. 248.b. 259.c. 262.l. 264.g. 275.e. 283.a. e
289.e. e. 290.i. 312.f. 313.c. 320.g. 354.i. 422.m. 431.a
432.f. 442.g. 599.e.
Crappus, a mixture in headie wine. 153.f. why so
called, ibid.
C. Crassus the richest Romane that ever was, but only
Sylla Dictator, 479.d. his apothecme. ibid. his lands
what they were, ibid. surnamed Optimus for his wealth,
479.e. his comenousness, ibid.
Crataegon, an hearbe, 279.e
Crataegonium, what hearbe, 257.d
Crataegonos, an hearbe, 279.b. the description and vertues,
ibid. a second kinde called Thelygonos, ibid.

Craterites, a pretious stone, 625.d
Craterus a cunning painter and Comedian both, 549.e
Cratereus, a renowned Physician, 129.b. see wrot of
hearts and set them forth in colours, 210.g
Crathis, a river, 403.c. the water of strange operation.
ibid.
Creisilbes of the river how medicinale they be, 435.c
Creisilb head drieth vermine out of a garden, 32.d
Cresses an hearbe, 29.a. why called Nasturtium, ibid. it
help th the wit and understanding, ibid. 56.g. two Kindes
of it, and their properties, ibid. which be best, ibid. k
Crest-marine, an hearbe. See Sampier.
Crickets much esteemed by Magicians, 370.b. the reason
wherefore, ibid. the manner of hunting and catching
them, ibid.
Cricke in the nape or pole of the necke how to be eased, 70.g
See more in Crampe.
Crius publicke at Rome waverich coats embroidered and
studded with purple like as Senators, 459.d
Crimas of Marfiles, a famous Physician, 345.a. by what
meanes he won credit, 345.a. b. a great Mathe-
matician and Astrologer, ibid. a ceremonious observer
of daies and houres. 345.b. a man of exceeding
wealth, ibid.
C. ista Galli, what hearbe, 275.c
Crocallus, a pretious stone, 625.d
Crocas, a pretious stone, 630.m
Crocinum, a sweet ointment, 105.b
Croci, a magicall hearbe, 204.k. the strange qualities
thereof, ibid.
Crocodiles skared away by the voice onely of the Tentyri-
ans, 299.a
against the Crocodiles bitt what remedies, 158.b. 315.a
418.k. 419.e. 433.b.
Crocodiles afford medicines from sundry parts of their
bodie, ibid. two Kindes of them, ibid. one kinde lining
both in land and water, ibid. a second kinde onely upon
the land, ibid. i. his dung is sweet and medicinale, ibid.
there, yon why, ibid.
Crocod le good meat, all save head and feet, ibid. m
Crocodilica, what it is, ibid. k. how to be chosen, ibid. how it
is sopticated, ibid. l. the vertues thereof, ibid. k. l
Crocodilian an hearbe, 279.e. the description and ver-
tue, ibid.
Crocomagma, what it is, and the use thereof, 105.b
Crystall rich in gold, 464.b
Cromus, a cutter in pretious stones, 501.d
Crom-foot, what hearbe, 239.c. the sundry Kindes, ib. their
description, ibid. d. why it is called Strumeca, ibid. e
Crudina, what veine it is of silver, 472.m
Crudities in the stomack how to be digested, 64.b. 66.j. 67.e
See Indigestion and Digestion.
Crushes how to be cured, 350.i. See Bruses.
Chrystall, 454.i. how it is engendered, 604.i. why so called,
ibid. whereupon found, ibid. how to be used, ibid. l. it
groweth naturally six cornered, ibid.
one peece of Chrystall weighing fiftie pound, 604.l
Chrystall vessels of what capacite, ibid. m
the imperfections and blemishes in Chrystall, 605.a
a Chrystall glasse once broken cannot be reunited, ibid. c
Chrystalls without fault and blemish be called Acentetari, ib. b
Chrystallion. See Fleawort. Cte-

C T
Ctesias, a writer, 404. i. his opinion as touching *Ambrosia*, 906. l.
Ctesidamus, a painter, 549. d.
Ctesias, a fine Imageur, 501. c. his curious workmanship, *ibid.*
Cteslaus, a famous Imageur, 501. e. his works, *ibid.*
Ctesibolus, a painter, 549. d. his picture of *Iupiter* in travell with *Bacchus*, &c. *ibid.*

C V
Cuckowes meat, an hearbe. See *Oxys*.
Cucubalus, an hearbe, 280. g. sunary names that it hath, *ibid.*
Cucumbers of the garden a commendable meat, 13. d. much affected by *Tiberius* the Emperour, 14. g. how preferred growing upon the ground all Winter, *ibid.*
Cucumbers without seed, 14. l. how to be preferred, 15. f.
Cucumber seed how to be prepared and set in the ground, 14. b. when to be sown or set, 15. a.
Cucumbers how they grow, and in what forme, 14. b. they love water and hie oyle, *ibid.*
Cucumber plants may be kept fresh all the yeare long, 14. l.
Cucumbers, a delicate sallad, 37. d.
Cucumbers three kinds, 14. l. how they blawme or floure, 15. c.
Cucumbers wild, 35. e. f. the fruit, *ibid.* where they best do grow, 36. k.
Cucumber for what it is good, *ibid.*
Cucumber Serpentine or wandering *Cucumber*, 36. m. the decoction thereof, and the vertue, *ibid.*
Cudwort an hearbe, 258. l. 283. b.
Cut, what medicinable properties it hath, 148. k.
Cut called *Sapa*, the nature thereof, 157. c.
Cumfrie of the rocke, an hearbe, 275. d.
Cumin, an hearbe, 61. c. the description and vertues, *ibid.*
Cumin, where it longeth to grow, and when to be sown, 29. f. good reprocure appetite, *ibid.*
Cumin seed how to be sown, 23. d.
Cumin is best, 30. g.
Cumin carfish palest of colour, 61. d.
Cumin *Esnepeike*, *ibid.* the properties of it, *ibid.*
Cumin of *Asphrike*, 62. g. the vertues thereof, *ibid.*
Cumin wild, and the vertues, 248. b.
Cumin, what hearbe, 30. i.
Cumula *Babula*, 63. b. why called *Panax*, *ibid.*
Cumula by *Tortises* as a defence against serpents, *ibid.*
Cumula *Babula*, wild *Origan*, 226. m. the vertues that it hath, *ibid.*
Cumula *Gallinacea*: the same that *Origanum* *Heractotium*, 63. c. the vertues that it hath, *ibid.*
Cumula *Libanotis*, why so called, *ibid.*
Cumula the soft, 63. d. the description and vertues, *ibid.*
*Cumula*go, what hearbe, 30. i. the vertues, 63. d. mothes gather to it, *ibid.*
Cupid, an Image at *Theffia*, wrought by *Praxiteles*, 566. m.
Cupid at *Parium*, wrought by *Praxiteles*, 567. a. comparable every way to *Venus* of *Gnidos*, *ibid.* abused by a wretched wanton, *ibid.*
Cupid wrought to the pattern of young *Alcibiades*, 568. g.

Cupids fountaine and the effects thereof, 404. b.
Curalium. See *Corall*.
Curalum, a stone. See *Pyrites*.
C. Curio his denise for two wooden Theatres at his fathers funerals, 584. i. k. l.
Curtius, a fountaine serving Rome, 586. g.
Curtia, waters medicinable, 402. m. their nature and souveraine vertues, 404. a. they stand upon salutarie, 412. g.
Cuttle fishes, their nature, 428. k. their medicinable vertues, 438. k. l.

C Y
Cyanea, a pretious stone, 630. k.
Cyamos of *Aegypt* described, 96. l. the use of this hearbe, 97. a.
Cyanos, a floure and a painters colour, 89. b.
Cyanos, a pretious stone, 620. k. which is the best, l. who denised first to give it a tincture, 620. l. male and female, *ibid.*
Cyathus what measure or weight, 113. c.
Cybia, the square peeces of the *Tunie* fish, 451. c.
Cylinus, an hearbe, 359. c.
Cyclamus, 229. f. what hearbe, *ibid.* called *Tuber* *Terraz*, *ibid.* the description, *ibid.* the vertues, *ibid.* the root how to be ordered, *ibid.* the venomous qualitie that it hath, *ibid.* three kinds thereof, *ibid.*
Cydus, a famous painter, 547. d. his Argonauts, a costly picture, *ibid.*
Cyanus, a river, 403. b.
Cyme the tender crops of *Coleworts*, 26. g. how fruitfull of them *Coleworts* are, *ibid.*
Cyncephalus, a magicall hearbe, 375. b. much commended by *Apian* the Great Grammarian, *ibid.*
Cynoglossus, what hearbe, 223. d.
Cynoides. See *Fleawort*.
Cynomorian, what weed it is, 145. a. why so called, *ibid.*
Cynomyia, an hearbe, 233. d. why so called, *ibid.*
Cynobastus. See *Dogbrier*.
Cynoschialis, an hearbe, 279. d. See *Orchis*.
Cynozolon, one of the names of the herbe *Chameleon*, 124. i. the reason of the name, *ibid.*
Cyperis what bean it is and the properties thereof, 101. c.
Cyperus, an hearbe, 99. c. the kinds and properties, 101. c.
Cyperus, a distinct rush from *Cyperus*, 100. m.
Cyperus what it is, 100. r. the description, 101. a. the distinct kinds and properties, *ibid.* the discommodities of it, 101. a. b.
Cypresse tree Apples, their use in Physicke, 179. b.
Cypris *Cypris*, rich in gold, 464. a.
Cypris, a pretious stone, 625. c.
Cyrtus in *Pomegranat*, what they be, 165. c. their properties, *ibid.*
Cyzicum earth hardeneth to a stone in the water, 554. l.
Cyzicus, a prince that built the stately temple at *Cyzicum*, 581. a.

D A

D
Dactylus, what it is, 455. a.
Dactylis *thebea*, what it was, 607. g. who first had

had any such, *ibid.*
Dactylus, what grasse, 207. b. why so called, *ibid.*
Dadalus, an excellent Imageur in brasse, 501. f. his workmanship, *ibid.*
Daffodils described, 85. a. how they differ from *Lillies*, *ibid.*
Daffodils their operations in Physicke, 103. c.
Daffie, a floure and hearbe, 89. c. the description, *ibid.*
Daffie the medicinable vertues, 245. e.
Dalion, a Physitian, 66. k.
Dumafonium, what hearbe, 231. b. 256. i.
Damon, a writer in Physicke, 52. i.
Damophilus, an excellent Imageur and workman in clay, *ibid.*
Damp in sinking up its it may be foreseen, and the danger prevented, 409. d. e.
Dandriffe in head and beard how it may be scorred and rid away, 44. b. 47. a. 52. g. h. 56. i. 59. c. 72. g. 103. b. 127. c. 138. m. 155. f. 157. e. 168. m. 161. b. d. 168. l. 171. e. 173. c. 174. k. 179. d. 182. b. 191. c. 207. c. f. 232. k. 249. c. 207. f. 300. a. 324. g. 365. c. 432. b. 559. b.
Dancort, an hearbe. See *Wallow*.
Danubius the river, 405. a.
Daphnia, a pretious stone, 626. b.
Dardanium what ornament of the bodie, 462. g.
Dardanus a magician, master to *Demetrius*, 373. c.
Dardell what medicinable vertues it hath, 139. a.
Dares *Myrobolane*, 163. b.
Dactreus, Spain, what vertues it hath, *ibid.*
Dates, what they are, and their use, 162. l.
Dates the liquor of *Dates*, what use it hath, 162. k. *ibid.*
Dates *Caryote*, what properties they have medicinable, 163. a.
Dates flowers their vertues, *ibid.*
Dates trees resembling naturally within stones, 588. b.

D E

the Dead, with what reverence and protestation they were named, 297. b.
Deafnesse or hardnesse of hearing, what medicines doe helpe, 40. g. 413. c. See more in *Eures*.
Deafnesse what cansteth deafnesse, 450. k.
Debate what things are thought to breed, 435. a.
Debris, why called in Latine *Es Alienum*, 479. d.
P. Decius *Mus* honoured with two grasse coronets, 116. k.
his praise worthy deeds, *ibid.*
Decuries of *Indiges* at Rome ordained by *Augustus* Caesar, 459. d. of what persons they did consist, *ibid.* four in all at first, 459. e. a list erected by *C. Calpurnia* the Emperour, 460. i. with what regard they were elected, 347. b.
a *Defensative* against inflammation, 206. k.
Deformities in the skin of the face how to be done away, 268. k. See *Vitage*.
Delphicke basons of brasse, 489. c.
Demetrius a Physitian wrote a treatise of the number four, 305. c.
K. Demetrius, in what regard he had *Protagenes* the painter, 543. a.
Demetrius, an excellent Imageur and engraver, 501. e. his curious work, *ibid.*
Democritus, a professor and writer in Physicke, 203. a. reprobred for his vanities and lies as touching the *Chameleon*, 315. b. c. addicted overmuch to the vanities of

Magicians, *ibid.* condemned for sitting downe reciters in Physicke made of mans bodie, 293. f. a maintainer of Magicke, 373. c. in some sort excused for his loud lies, 316. g.
Demos *Atheniensium*, what picture it was of. *Parasius* his doing, 535. e.
Demophilus the great Oratour carried poison ordinarily in his ring, 453. l.
Demosthenes, a writer in Philosophie, 606. b.
Denarius or *Denier*, a silver peece at Rome, for what it was current, 463. a. going for ten *Asses*; it was stamped with the Decussis X. 463. b. going for sixtine *Asses*, with this number XVI. *ibid.*
a *Denier* in soldiers pay was never aboleten *Asses*, *ibid.*
Denarius, a peece of gold come, 462. i.
Dendrachates, a pretious stone, 623. c. the reason of the name, *ibid.*
Dendritis, a pretious stone, 631. a.
Dentifices for to make the teeth white, 326. i. 327. b. 352. l. 376. b. 422. g. 437. d. 440. l. 591. b.
Dendrite, what use it hath, 462. g.
Depilatories, 505. f. 110. d. 110. k. 122. g. 146. k. 166. l. 171. a. 187. a. 190. b. 268. k. l. 280. l. 302. g. 312. i. k. 315. a. 316. g. 340. b. 341. a.
against the abuse of *rosins* *Depilatorie*, and pitch plaisters to take away haire, 349. a.
Desiccative medicines, 138. m. See more in *Esiccative*.
D I
Diadodium, what composition it is, 68. b.
Diadochus, a pretious stone, 626. b.
Diadumenus, an excellent Image of *Polydorus* his making, 497. a.
Diaglaucium, a singular collyrie or eyesalve, 282. k.
Diagoras, a Physitian, 67. e.
Diagraphice, what kinde of painting or pourtraying, 553. b.
learned by gentlemen children, *ibid.*
Dialcon, a kinde of *Asphron*, 86. i.
Diamant, the most pretious thing in the world, 609. f.
Diamant, the onely pretious stone found in metall mines, 609. f.
six kinds of *Diamants*, 610. g.
the Indian *Diamant* described, *ibid.*
description of the Arabian *Diamant*, *ibid.*
how the true and perfect *Diamant* is tried, *ibid.* why it is called in Greeke *Adamas*, *ibid.*
Cyprian *Diamant*, *ibid.* the description, *ibid.*
the *Diamant* *Siderites*, why so called, *ibid.* the secret antipathie betwene *Goats* blood and the *Diamant*, 610. k.
Diamant how it may be broken & reduced into powder, *ibid.*
concrete betwene the *Diamant* and *Leadstone*, *ibid.*
the use of a *Diamant* in cutting other stones, *ibid.*
the medicinable vertues of the *Diamant*, *ibid.*
why the *Diamant* is called *Anachnes*, 611. a.
Diamoron, a composition of *Alulberries*, 192. b.
Diamuron made of common blacke bramble berries, comparable to the other of *Alulberries*, 196. i.
Dianees Image at *Chios* cut in marble, 565. a.
the strange cast of the eye, *ibid.*
Diana *Anaitis*, an Image of beaten gold, 470. g.
carried away out of the temple by *Anonic*, *ibid.*
the pleasant answer of a *Bonomian* to *Augustus* Caesar, *ibid.*

The Table to the second Tome

far as touching this act of Antonie, 470.b
 Diarie or day feaster how it is dispatched, 155.c
 Dibutades (as some thinke) denised first to forme an Image
 or likeness in clay, 551.e. f. by what occasion, ibid.
 his inventions besides in building, 552.g. he denised
 ibid.
 Protypa and Ectypa,
 Diceus, an image of Leontem making, why so called, 498.l
 Dictamnus, an hearbe growing onely in Candie, 225.c
 three Kindes thereof with their description, ibid. d. e.
 the vertues of Dictamnus, knowne to vs by meanes of
 the Hind, ibid. of great power to prouoke womens
 tearmis, 266.m. women with child must be warie of it. ib.
 Dictyotheton, a kinde of worke in Masorie, 594.g
 Didoron, what size of Bricke, 558.d
 Diet of great power to correct the humors of the bodie, and
 to reforme the affections of the mind, 136.b
 Diet exquisite, ibid. g
 Diet nothing exquisite and precise, best for health, 304.b
 Dieuchet, a writer in Physicke, 40.k. he wrot a booke in
 praise of Coleworts, 48.i
 Digestion by what meanes it is helped, 40.l. 41.e. 52.g
 63.e. 70.g. 132.g. 134.b. 151.e. f. 154.g. 156.l. 162.k
 182.m. 247.d. 259.e. 272.k. 277.a. 290.k. 303.e.
 Digestiue medicines and concocting cruditie of humours,
 182.m. 249.d. 359.e.
 Digitellus, what hearbe, 237.c
 Dill, an hearbe, 30.l. the medicinable properties, 67.c. the
 discommodities thereof, ibid.
 Dinocrates, a cunning Architect, 515.a. his deuise to
 couer the temple of Arjmo, with a roffe of Load-
 stone, ibid.
 Diocles, a writer in Physicke, 416.112.l. 242.k
 Diodorus, a Physician and writer, 55.a
 Diodontus, a writer in Physicke, 200.l
 Dionysius, a pretious stone, 626.b
 Dionysius, an Herbarist and writer, 71.a. he departed
 hearbes in their colours, 210.g
 Dionysius, a painter, 551.b. he was good at nothing but in
 poutraying the personages of men and women, 544.i
 hereupon he was surnamed Anthropographos, ibid.
 Dionysodorus, a vaine Musician, 601.c. he loned to be at
 his change of rings and pretious stones, ibid.
 Diopetes small frog, medicinable, 438.k
 Dior. Author, what manner of sloure, 91.a. b
 Dioscorides, a cunning engrauer and cutter in pretious
 stones, 601.d
 Diospyron, 284.l
 Diotimus, a Physician and writer, 309.e
 Dioxippus, a famous challenger at the games Olympica,
 549.c. pictured by Alcimachus, ibid.
 Diphrys, a pretious stone, 626.b. male and female, ibid.
 Diphryges, what it is, and why so called, 512.l. three Kindes
 thereof, ibid. l. m. the vertues medicinable, 513.a. how
 the good is tried, ibid.
 Dipannus, a renowned cutter & engrauer in marble, 564.b
 his worker, where they were rife, 565.b
 Dipfacos, an hearbe, 280.k. See more in Tazill.
 Dipfus, a venomous worme, 434.g
 Dira, unluckie bird, 295.a
 Dissolutive medicines, 141.a. 180. i. 233.d. 273.d. 303.a
 319.c. 418.k. 421.e. 423.d. 556.l. 557.d. 560.g.
 588.m. 595.d.
 Diseases deadly of man or beast, what cureth, 313.a. di-
 uerse diseases of a strange nature, 241.c
 Dislocations of joints, how to be helped, 46.i. 49.a. 52.k
 63.f. 64.b. 73.a. 103.d. 108.g. 109.b. 121.d. 124.l
 129.c. 136.k. 141.a. 146.k. 154.f. 159.d. 161.d. 162.g
 172.b. 187.e. 191.d. 195.e. 201.a. 205.d. 208.g. 261.d
 275.e. 303.a. 320.g. 337.b. 349.f. 386.i. 414.g. 419.f
 450.i. 595.d.
 swelling occasioned thereby how to be assuaged, 261.e
 Distans undizened and so carried by women, held omi-
 nous, 298.i
 Distander, an hearbe, 30.k. the description, ibid. where it
 groweth, ibid. the properties, 65.a
 Dinites, i. rich, who were properly called, 479.d
 Crassus, surnamed Dines, proued a bankrupt, ibid.
 Diueticall medicines, 149.d. 186.g. 190.k. 191.b
 254.k. 281.b. 287.b. 442.b. 443.a. 444.g. b.
 See more in Vrine.
 Dixziness of the head how it is remedied, 47.b. 60.b. 62.g
 67.a. d. 111.f. 149.e. 155.d. 157.a. 177.b. 219.d. 233.f
 283.f. 289.e. 381.b. 437.a. 591.a.
 D O
 Docke, an hearbe, the roots medicinable, 19.d
 Dodecatheos, an hearbe, 214.b. why so called, ibid. the de-
 scription and vertue, ibid.
 Dogbrier or bramble, 196.k. called Cynosbatos and Cyno-
 spastos, ibid. the description, ibid.
 Dogs grasse Canaria, 225.b
 Dog how envious to man, may be seene in that and another
 hearbe, ib. c
 Dogges are killed with the iuice of the hearbe Chamaleon,
 124.g.
 what else is deadly to Dogs, 53.d
 Dogs crucified and hanged yearly aline at Rome, 355.b
 the reason wherefore, ib.
 Dogs how to be kept from barking and doing harme, 362.m
 399.e. 450.b.
 curst Dogs how to be appeased, 435.a
 Dog burnt to ashes, in what case medicinable, 324.i
 Dogs head medicinable, 362.l.m
 wormes engendred in a Dogs carkeffe, medicinable, ibid.
 the haire of a dogs taile, for what it is good, ibid.
 Dogs blood sermeth in Physicke, 355.c
 Dogs head reduced into ashes medicinable, 362.k. l
 Dogs biting that is not mad, how cured, 373.d. 42.g. 78.g
 121.d. 133.c. 134.i. 146.l. 155.f. 158.b. 172.b. 185.f
 314.g. 322.m. 443.b. 473.f.
 mad Dogs how their tooth doth poison, 231.c
 mad Dogs biting how remedied, 43.e. 51.a. 52.b. 54.i. 57.a
 75.d. 105.c. 106.l. 166.m. 167.a. 168.k. 171.e. 172.k
 192.k. 199.c. 212.g. 231.c. 278.b. 301.b. 306.k. 309.d. f
 313.e. 322.l. 350.b. 362.l. 363.a. b. c. 418.i. 422.b
 434.b. 443.c. 516.g.
 a man bitten by a mad Dogge, cured by reuelation from the
 gods, 212.g
 the biting of a mad Dogge incurable, if Hydrophobic enise
 thereupon, 211.f
 how Dogges may be preferred from running mad, 308.b
 363.a.
 a brasen Dog in Iunoes chappell, 494.m. with what charge
 it was kept, ibid.
 Dog-fish medicinable, 440.g
 Dog,

of Plinies Naturall History.

Dig-berrie tree, how it preferueth hearbes from any ver-
 mine, 32.m
 Dolphin fish yeeldeth ashes medicinable, 440.g. the liner
 ibid.
 Dolphins, peeces of siluer plate, which C. Gracchus had,
 482.b.
 Donaces be the male of shell-fishes, 444.b
 Donax, a cane in Cyprus medicinable, 191.c. 450.i
 Dora, why gifts are so called in Greeke, 555.d
 Doris, what hearbe, 124.m
 Doron, what measure it is in Greeke, 555.d
 Dorotheus, a Poet, and writer in Physicke, 131.f
 Dorycnium, the poisonous Dwale, 112.k. why so called, ib.
 the counterpoison thereof, 150.m. 308.g. what reme-
 dies more be appropriat for that poison, 308.g. 318.b
 436.b. i. 443.b.
 Dorypetron, an hearbe. See Leontopodium.
 Doryphori, an image of Polycletus his making, 497.e
 Doryphori, Images in brasse, resembling the guard of King
 Darius, 501.e
 Doves foot, an hearbe. See Geranium.
 D R
 Draconites or Dracontia, a pretious stone, 626.i
 Dracontium, an hearbe, 200.b. whether it be the same that
 Dracunculus, ibid. the medicinable vertues of the herbe
 Dragon, whether it be Dracontium or Dracunculus,
 201.b. c. three Kindes of Dracontium, ibid. i. differs from
 Aron, ibid. how it tocke the name, ib.
 Draconculus the herbe, of two sorts. different one from the
 other, 212.b. one kinde sheweth aboue ground, and reti-
 reth backe againe, according as se-pents appeare aboue
 the earth, or be hidden, ibid.
 Dragons, an hearbe. See Dracontium and Dracunculus.
 Sea-Dragon, a venomous fish, 246.k. the remedies
 against the pricke and poison thereof, 246.k. 277.c
 418.i. 433.f. 434.b. i.
 Sea-Dragon medicinable for the hurt that himselfe hath
 done, 434.i
 Dragons haue no venom within them, 357.a. their greace
 diueth away all venomous beasts, 357.d
 Dragons. See Serpens.
 Dram Atticke, what it doth peise, 113.e
 for to Draw forth of the flesh, spils, shiners, bones, thornes,
 arrow heads, and such like, proper remedies, 44.k. 56.g. b
 71.f. 76.k. 103.d. 105.d. 108.l. 119.d. 122.l. 135.d
 144.k. l. 149.f. 150.i. 167.a. 168.l. 191.d. 195.f
 206.g. 262.i. 264.m. 365.a. d. 266.g. 283.d. 291.c
 306.a. 338.m. 371.a. 394.l. 395.a. b. 447.d. e. 450.k
 511.b.
 Draw skalie bones out of the skull, 233.b. d
 Dreames fearefull and troublesome, what do cause, 251.a
 315.e. meanes to auoid them, 65.e. 315.e. when and
 how we dreame most, 303.e
 Drinking of cold water, more wholesome than of hot drinke
 304.g.
 Drinking of waters naturally hot ouer liberally, hurtfull,
 412.b. where droughe maketh dirt, and raine dust,
 410.i.
 for the Dropse diuers remedies, 36.l. 39.d. 40.k. 42.k. 43.b
 44.g. 45.b. f. 51.f. 55.c. 57.d. 64.k. 66.k. 69.f. 74.b
 77.e. 101.l. 104.f. l. 106.g. k. 109.b. 110.m. 119.d
 124.g. 127.e. 128.k. 134.k. 142.l. 148.g. 149.b
 164.g. 166.b. 167.g. 174.l. 181.c. 182.g. 184.f. m
 186.g. 187.e. 190.g. 191.c. 192.b. 198.i. 203.c. 218.f. k
 219.d. 252.g. 253.c. 260.l. 261.a. 273.b. 276.b. 283.f
 284.i. 287.e. 290.k. 336.l. m. 362.b. 391.e. 414.b. 419.e
 422.i. 443.a. 446.i. 508.g.
 Dropse of brasse, 507.c
 against Drownsesse remedies, 74.b. 206.g. 218.l. 260.l
 336.b. 446.i. k.
 Drownsesse what doth engender, 101.e
 Drownsesse occasioned by the venome of the Aspis, how
 cured, 356.i
 the drunke, together with Physicians, Prophets, and Wisards,
 put downe by Tiberius Cesar, 374.g
 the Druida of France tell wonders of the serpents egge An-
 guinum, 354.g
 Drunkenesse, what meanes to withstand, 43.b. 49.c. 57.d
 103.e. 105.a. d. 119.d. 153.b. 171.f. 190.g. 201.b.
 259.e. 342.g.
 what things cause loathing of drunkenesse and wine,
 399.c. 626.b. 450.g.
 Drunkards, why they drinke pumish stone, before they sit
 downe to quaffe wine, 591.d
 Drusillanus Rotundus his vanitie and wast in a siluer
 charger, 481.e
 Drusus cured of the falling sicknesse, by purging with El-
 leboro in the Isle Anticyra, 218.g
 Dryites a pretious stone, 630.k
 Dryophonon, 280.m. the description, ibid.
 Dryopteris, 280.l
 D V
 Duckes meat, an hearbe, 142.b. the medicinable ver-
 tues thereof, ibid.
 Duckes and Mallards bloud bred in Pontus, medicinable,
 364.g.
 C. Duilius his statue erected vpon a Columne at Rome,
 491.a.
 Dumbenesse comming suddenly, how cured, 42.b
 Durs, a writer, 498.m
 Duo, the bare word, a charme for Scorpions, 297.e
 D W
 Dwale, a poisonous hearbe. See Dorycnium.
 D Y
 Dyed colours, which be the richest, 88.l
 Dying cloth and wooll with the iuice of hearbes, 114.m
 123.c.
 Dyars craft, 115.c
 Dysenterie or vlcir of the guts, how cured, 66.i. 73.a. 126.g
 129.a. 137.b. 140.i. 141.f. 153.f. 318.g. 382.k. 418.k
 474.b. 520.i. 557.e. See Blondie flux.
 E A
 Eares pained within, conuenient remedies, 38.g. 42.g
 44.g. 54.d. 57.e. 60.g. 62.m. 66.g. 68.b. 70.l. 102.i
 103.d. 106.m. 131.d. 135.e. 140.g. 157.b. 161.e
 162.b. k. 169.c. f. 172.b. i. 173.c. f. 183.f. 185.a. 188.l
 189.f. 196.b. 200.l. 237.f. 238.g. 277.c. 307.c. 325.d
 326.c. 369.b. c. e. 418.k. 439.e. 439.f.
 Eares exulcerat, sore within, and running with attur, how
 to be clenised and healed, 120.l. 160.b. 165.b. 174.m
 180.g. 181.a. 183.a. c. 189.f. 197.d. 216.b. 228.g
 277.e

The Table to the second Tome

277.c.287.b.306.b. 325.d. 326.g. 350.i. 369.b.d.
370.g. 418.k. 431.c. 432.b. 422.g. 432.k
for Eares deafe or hard of hearing, good medicines, 36.b
42.g.m. 44.g. 49.b. 54.b. 56.i. 57.e. 63.e. 75.c. 111.a
128.i. 149.a. 156.m. 157.b. 159.c. 161.b.d. 162.b
165.a. 173.c. 325.e. 326.g. 369.b. 507.f. 511.c.
comfortable things for the Eares in all infirmities, 131.d
160.m. 161.b. 178.g. 186.m. 249.c. 259.c. 273.a. 274.i
303.e. 307.c. 350.b. 369.d. 370.k. 371.a. 439.d. 558.l
559.b. 609.b.
for Eares ringing and ringing, or hauiing in them any vn-
natural sound and le, 43.a. 47.b. 57.c. 62.b. 135.c
161.b. 162.b. 180.a. 188.b. 510.i.
Eares smelling strong and stinking, how to be cured, 307.e.f
325.e. 370.g.
agaunst Earwigs or such like vermine crept into the eares,
300.k. 369.e.
water gotten into the Eare, what medicins it doth require,
305.b. 369.c.
Eares hauiing wormes or vermine engendred within them,
how to be cleansed, 59.b. 62.m. 77.c. 78.b. 142.k. 161.b
306.b.
Eares wounded or cracked how to be healed, 52.i. 326.g
369.f. 439.f.
Eares tingling, and glowing what they betoken, 297.c
Eare-wax medicinable, 301.a
Earth in or about the skull of a man or woman entered,
how to be medicinable, 302.g
Earth Ebfuitare is medicinable, 561.d. See more in
Earth-wormes.

E B
Eben, the vertues thereof, 191.e

E C
Echeneis or the flayfish, of a wonderfull nature, 425.e.f
how it fasteth a ship, 426.i. the forme and bignesse there-
of, ibid. the medicinable vertues of this fish the Greeke
write contrarieties, 246.k
Echion, what medicine or collyrie it is, 366.l
Echion, an hearbe, 327.e. two kinds, ibid. the description
and vertue, ibid.
Echion, a cunning painter, 557.c. his pictures, ibid.
Echites, a precious stone, 630.i
Echites, an hearbe described, 199.e
Echo, what it is, 558.i. how it is caused naturally, ibid.
at Cizicum there is an Echo by fortune, ibid. at Olym-
pia, caused by art, ibid.
Eclipses of Sunne and Moone thought to be wrought by en-
chantment and witchcraft, 210.k
Eclipsa, what they be, and who deuised them, 552.g
Eculus, a writer, 536.g

E G
Egs of Hens, and their medicinable properties, 351.c
yolke of Hens egs, in what cases it is medicinable, 352.g
Egs all yolke, and without white, be called Schifsa, ibid.k
the yolk of an Hen Egge-shell good in Physicke, ibid.l
Hens Egge-shell reduced into ashes for what it serueth, ibid.
the wonderfull nature of Hens Egge-shells, ibid.m
Hens Egges, all whole as they be, what they are good for,
353.a. the commendations of Hens Egges, as a meat
most medicinable, ibid.b
Hens Egge, a proper nourishment for sicke folke, and may go
for meat and drinke both, ibid.

Egge-shells, how they may be made tender and pliable, ibid.
white of an Egge resisteth fire, 353.e
of Geese Egges a discourse, 354.k
the serpents Egge, which the Latines call Anguinum, what
it is, and how engendred, 353.f
Eglantine brier, Cynorrhodon, 196.k
the root foueraine for the biting of a mad dog, 112.a
Egula, what kinde of brimstone, and for what it serueth,
556.k

E I
dimnesse of Eies, what causeth, 438.i
for dimnesse of Eiesight threatening blindness, appropriate
medicins, 40.g. 41.f. 46.k. 50.g. 51.d. 56.g. 57.b. 65.d
73.d. 74.k. 75.c. 76.b. 77.b. 78.l. 107.d. 146.m
157.a. 158.m. 160.i. 161.b. 162.g. 165.a. 168.g. 179.b
180.k. 183.f. 186.l. 193.m. 198.m. 200.m. 218.i
222.m. 224.b. 233.e. 234.g. 236.l. 277.c. 286.k
301.f. 306.b. 311.b. 312.g. 314.m. 324.k. 325.c.d
366.k. 367.a. 368.g. 369.a. 422.g. 431.e. 432.i
433.f. 438.b. 439.c. 443.b. 443.c.
for Eies enflamed, swelled, and pained, 37.c. 69.d. 104.g.m
108.l. 140.g. 141.b. 155.c. 156.f. 164.g. 165.l
173.a. 184.b. 234.m. 235.b. 236.b. 287.b. 307.d
308.b. 325.c.d. 351.a. 352.g. 368.g. 423.d. 439.e
511.b. 529.i.
for Eies bleared, 52.j. 66.g. 120.k. 157.f. 165.c.d. 178.g
179.c. 184.i. 193.c. 194.b. 195.a. 196.g. 272.b. 301.f
302.c. 367.c. 368.k. 325.d. 174.i. 234.g. 234.m
286.g. 301.c. 304.g. 305.f. 311.f. 312.g. 313.f
318.i. 325.a. 368.b. 423.b. 439.f.
for Eies bloudy, hotton upon a stripe, or otherwise fierie red,
58.k. 120.i. 177.c. 234.k. 307.d. 308.b. 367.c. 419.m
431.f. 438.k. 589.f.
ulcers in the eies how to be cured, 143.b. 168.b. 287.f
351.a. 367.c. 473.c. 507.a. 591.a.d.
corners of the Eies exulcerat how to be healed, 197.d
asperitie of the Eies how to be helped, 307.b. 312.g. 324.k
510.i. 511.b. 528.m. 559.i.
cicatrices, scars, clouds, and filmes of the Eies, how to be
rid away, 125.c. 146.m. 180.k. 198.m. 225.b. 233.l
275.c. 286.k. 306.g. 312.g. 314.k. 324.f. 367.b. 368.k
421.f. 507.a. 432.i. 433.b. 441.i. 471.c. 511.b. 557.f
609.b. 48.b.f.
Pin and web in the Eies, what medicines doe scoure and
scatter, 106.l. 144.k. 179.b. 191.c.f. 198.f. 233.f
306.g. 315.c. 316.g. 367.c. 368.b. 438.l. 506.m
509.a.
pearles, mailes, and shots in the Eies how to be dispatched,
144.k. 179.e. 180.k. 191.f. 306.g. 312.g. 315.c
316.g. 324.l. 325.c. 366.b. 367.c. 422.g. 458.f
443.c. 507.a. 509.a. 557.d. 366.i. 367.b. 368.g
369.a.
for Eies troubled with a violent flux or rheume falling into
them, 307.d. 308.b. 423.d. 473.c. 506.m. 511.b
561.c. 559.c. 366.k. 368.k. 369.a.
Eies gogled and readie to start out of the head, how to be
repressed, 69.f. 158.k. 166.b. 306.b. 519.c. 590.g
Eie-balls sunke and hollow, how to be raised, 519.e
Eies full of filthie gnm and viscus matter, how to be clean-
sed, 236.k. 237.c. 506.m.
Eies of little children, if they be red and bloudy, hotton, how
to be cured, 351.d
enri-

of Plinies Naturall History

unicles of the Eiss broken, what things do heale, 325.e
367.b. d. rough how to be smoothed, 509.a
motes in the Eie how to be rid away, 395.b
Eies how to be clenfed from the laundise, 307.e
excrecence of flesh in the angles of the Eies, how to be
repressed, 418.m. 438.b
Eies wearied with watching how to be comforted, 512.b
Eies blacke and blew upon a stripe, how to be helped, 419.a
439.b.
dents and excavations in the Eies how to be helped, 312.g
for Eies continually weeping and watering, 37.c. 38.b
42.g. 45.c. 47.b. 47.d. 52.f. 53.e. 57.c. 60.g. 61.e. 65.c
66.g. 67.c. 69.d. 70.f. 73.d. 76.b. 102.k. 103.c
104.g. 106.b. 108.b. 109.a. 122.k. 128.g. 138.g
140.f. 141.c. 147.b. 153.c. 155.e. 158.k. 162.i
169.c. 177.e. 186.f. 197.a. 199.c. 200.k. 206.l
234.g. 235.a. 236.b. 237.c. 239.a. 273.a. 277.c
281.a. 282.k. 289.c. 301.c. 305.f. 307.c. 324.k
325.a. 351.a. 366.k. 368.l. 473.c. 508.i. 511.b. 516.i
529.a. 587.b. 590.g. 591.a.
for al infirmities and accidents of the Eies in generally, com-
fortable medicins, 36.g. 42.g. 45.d. 46.l. 48.l. 49.d
403.b. 416.b. 419.a. 424.f. 432.k. 511.c. 559.a. 599.b
590.i. 623.f.
Eie-browes how to be embelished and beautified, 163.a
560.g.
Eie-lids, roughnesse, itch, and scurfie, how to be amended,
146.m. 147.b. 166.l. 272.b. 350.k. 368.k
their asperitie and excrecence of flesh, how to be cured,
421.f. 424.k. 438.k. 443.c. 516.b. their hardness how
to be mollified, 140.l. 351.a
Eie-lids exccoriat, how to be skinned, 158.k. 272.b
the untoward haire of the Eie-lids growing into the eyes,
how to be redified, 131.f. 183.a. 184.b. 324.l. 325.c
351.c. 366.g.
from the Eie-lids what canse the haire to fall, 417.d
See more in Haires, how it is made to grow, 366.g
for all the imperfections generally of the Eie-lids, ap-
propriat remedies, 36.g. 63.c. 74.k. 106.l. 306.g. 324.m
438.l. 509.a.
situlaces about the angles of the Eies, how to be cured, 529.a
in Eies of Horse or Beast, how the Haw is to be healed,
69.a. 198.l. 233.f. 234.k. 366.l. 420.g.
Eie-salues, 286.k. 324.l. See more in Collyries.
Eidyls & Eclogues of poets, why stored with charms, 296.k

E L
Elaphoboscon, 225.c
Elaphoboscon, an hearbe, 119.e. the description, ibid. prefer-
red for meat, ibid. the medicinable vertues it haib, ib.f
Elute, what Date tree, 163.b
Eluterium, what it is, 35.f. how it is gathered, ibid. how
reduced into troches, 36.g. how long it will last, ibid. the
prooffe of it, ibid. the effects thereof, ibid. how to be cho-
sen, ibid.
the full dose of Eluterium one Obolus, ibid. l. it is a pur-
gative, ibid. k. it cleanseth the matrice, 37.a. it hasteneth
an abortiue fruit, ibid.
Elatine, an hearbe, 281.a. the description, ibid.
Elatites, a kinde of bloud-stone crude, 590.b. being calci-
ned, it becometh Miltites, ibid.
Elatus, a river in Arcadia medicinable, 403.a
Elder tree, 185.f. the vertues in Physicke, ibid.

ground-Elder. Sea Walwort.
Electrides, Islands, why so called, 605.e
trees, according to some, 366.b
Electro, the name of the Sunne in Greeke, 605.c
Electrum, base, whitish gold, naturall, 469.e. the temper
thereof with silver, ibid. of credit in old time, ibid.
Electrum artificiall, 469.e
a cup of Electrum dedicated by ladie Helena to Minerva
at Lindos, 469.f
the singular properties of Electrum, ibid. it discovereth
poison, 470.g
Electrum the same that Amber. See Amber.
Elecampane, an hearbe, 41.e. the medicinable vertues that
it hath, ibid. why called Helenium, 91.b. See more in
Helenium.
Electiphacos, what hearbe, 142.b.k
Elephants bodie affoordeth good medicines, 310.l. their
bloud medicinable, ibid.
Elephants tooth medicinable, ibid.
the trunk of an Elephant used in Physicke, ibid.
Elephantiasis, a foule disease. See Leprie.
Elephantiasis, a woman Physician & writer in Physick, 309.e
Elichryas, a slowre and colour artificiall, 89.b
Ellebores the hearbe, 217.b. two principall kindes, ibid. their
description, ibid. c. d
blacke Ellebores, a very poyson to cattails, 217.c. the best
groweth upon mount Helicon, ibid.
blacke Ellebores, why called Melampodion, 217.d. whereto it
is used, ibid. with what ceremonious deuotion it is to be
gathered, ibid. d. e. it is called likewise Entomon and Po-
lyrhizon, ibid. it purgeth downward, ibid. other ver-
tues thereof, 218.i. the dose, ibid.
white Ellebores, 217.d. where the best groweth, ibid. with
what regard and circumstances it is gathered, 217.e. it
purgeth upward, ibid. how to be chosen, 218.l. the
dose, 219.a
circumstances to be obserued in the taking of Ellebores, ibid. c
Ellebores at first were dangerous purgatives, ibid.
taken by students to purifie their eies, 217.f. corrected
by the mixture of Selamoides, 218.g
Ellebores the white, what properly doth correct, 431.c
Ellebores called in Latine Peratrum, and why, 218.g. for
use in Physicke how it is to be chosen, ibid. g. h
the medicinable vertues of the Ellebores, ibid. how they are
prepared, ibid.
unto whom the giuing of Ellebores is prohibited, 219.e
the strange operation of the white Ellebores root, 230.l
great care to be had in taking white Ellebores, 218.l. m
the time of ministring it, 219.b. c
the manner of the working of Ellebores, ibid. d
Elleborine, an hearbe. See Epipactis.
Elme, what vertues it yeeldeth in Physicke, 185.c
Elops, a venomous serpent, and the remedy, 434.g
Elutia. See Lead ore.

E M
Embassadours, why they carried a rod or mace with serpents
poutraired about it, 354.i. k
Emeraud, the most pretious things in the world after the
diamond and pearles, 611.b
the green colour of the Emer and most pleasing to the eye, ib.
why Emerauds are not cut and engrauen, ibid. c
of Emer aud twelve kindes, ibid. d
Scy-

The Table to the second Tome

of Plinies Natural History

Seythian Emeralds, *ibid.*
Babrian Emeralds, where they be found, and how, 611.e
Egyptian Emeralds, *ibid.* where they be found, *ibid.* the
 reason gotten out of brassen mines, *ibid.* the best there-
 fore in Cyprus, *ibid.*
 fishes how they were fowled with Emeralds, standing as
 eyes in the head of a marble Lion, 612.g
 the defects and blemishes in Emeralds, *ibid.* g.h. in their
 colour, *ibid.* in their bodie and substance, *ibid.* i
Ethiopian Emeralds, *ibid.* i
Persian Emeralds, *ibid.*
Hermionian Emeralds, *ibid.*
the Atticke Emerald, *ibid.* k
the Median Emerald, *ibid.*
Carchedonian Emeralds, *ibid.* l
Laconicke Emeralds, 613.g
Emeralds of great figure, *ibid.* a.b
Empetron, otherwise called Calcifraga, what bea-
 re, 281.a
 the description and vertues, *ibid.* b
Emplecton, what worke in Musorie, 593.f
Emydes what Tortoises they be, 431.d
E N
Enamelling, See Encaustice.
Encardia, a pretious stone named also Cardifce, 626.k
Encaustice, the feat of painting with fire, or enamelling,
 546.b. who devised it, *ibid.* who excelled therein, *ibid.*
Enchantments, See Charms and Words.
 altogether by Plinie, 213.c
Encheira, what bea-
 re, 124.m
Endee, the diuers kinds and their medicinable properties,
 47.d
Enervans in silver who were famous, 503.d
Enhyas what serpent, 376.g. the properties of it, *ibid.*
Enhydros, a pretious stone, 630.l
Enneacrurus, a famous fontaine at Athens, 410.g
Enneaphyllon, an hearbe, with nine leaves on it, 281.c. the
 nature and vertues, *ibid.*
Enochia, a pretious stone, 626.k. why so called, *ibid.*
Enurates diseased, what medicines are proper therefore,
 158.g. influenced how to be cured, 165.d
E P
Ephemerides, an ancient intution, 210.i
Ephemerou, what bea-
 re, 261.e
Ephemeron Calcitaneum, a poysonous herbe, with the remedy
 thereof, 323.c.d
Epichernus, a Greeke writer in Physicke, 50.b
Epictetus his picture much esteemed, 522.l. his mouth-
 mints, *ibid.*
Epigenes, a writer, 406.k
Epigonus, an excellent Imageur, 504.g. renowned for repre-
 senting an infant by the mother lying slaine, *ibid.*
Epimachus in pretious stones, what it signifieth, 626.l
Epimenides, an hearbe described, 281.c. hurtfull to wo-
 men, *ibid.*
Epimedium, a kinde of squilla or sea Onion, 18.m
Epiphides, accends to the eyes, how to be helped, 438.l.m
Epiphysides, how Plinie taketh it, 421.d. what it meant
 thereby in other writers, *ibid.*
Epithymus, what bea-
 re, 250.l. the true description,
ibid. m
E Q
Equisetum, an hearbe, 263.b

E R
Eranthemom, what bea-
 re, 125.d. why so called, *ibid.*
Erasistratus, a Physician, 68.g. he condemned Opium, *ibid.*
 he altered the course of the former Physicke, 344.b. how
 much money he received for one cure, *ibid.*
Eretia a white earth serving for painters colour, 518.k
 why so called, 329.f. the use in Physicke, *ibid.* two kinde
 thereof, 559.e. how the good is knowne, *ibid.*
Erigonius, a painter, 550.k. how he came by knowledge, *ibid.*
Erimeos the name of the wild figtree in Greeke, 169.b. the
 name also of an hearbe, *ibid.* the description of the hearbe,
ibid. c. the vertues, *ibid.*
Eriphis a strange hearbe, 204.l. the description, *ibid.* how
 it tooketh that name, *ibid.* the use thereof in Physicke, *ibid.*
Eristalis, a pretious stone, 626.k
Eritus, an hearbe, 274.n. the sundry names it hath, *ibid.* why
 called Eritus, *ibid.* the vertues medicinable, *ibid.*
Eritubales, one of the names of the Asse Hauke, 237.c
Erotylus, a pretious stone, 626.k. caused likewise Amphico-
 me and Heremion, *ibid.*
 what Earth is like by the leere to haue water within, 409.d
 what not, *ibid.* c.d
 in what place Earth turneth in time to be a stone, 554.l.m
 the bountie of the Earth upon a rabbit, 553.b
Eriten worke and vessels both in diuine and ciuile uses
 also, 553.b. c. of great price, *ibid.* d.e
Eritus pure, will not flame, 472.b
Eritus medicine, how to wash and prepared, 559.e
Eritubas as they discover springs, so they swallow them
 up, 411.a
Eritus wormes medicinable, and therefore preferred, 361.d
Eritus the Pulse what vertues in Physicke it hath, 147.b
 the commodities thereof, *ibid.*
Erynges, a vrayne hearbe against all poysons and ser-
 pents, 118.m. the description, 119.a.b
Erythraea, what plant, 105.b. the sundry names of it, *ibid.*
 the medicinable vertues where with it is endued, *ibid.* c
Erythrus fishes, hauing a p-opertie to stay the Luke, 443.c
E S
Efopus, what bea-
 re, 45.b
Efubops, a kinde of the Colchians, rich and sumptuous both
 in silver and gold, 464.v
E T
Ethe, what they be, 541.d
E V
Euxas, a K. of Arabia, who wrote of hearbes, 210.g
Eucha what bea-
 re, 231.f. the effects thereof, according to
 the Aegyptians, *ibid.*
Eucnemus Amazon, an image, 503.a. why so called, *ibid.* why
 esteemed so much by Nero the Emperour, *ibid.*
Eudemus a Physician, 347.e. neuer familiar with Livia the
 princeesse, wife to Drusus Caesar, *ibid.*
Eudoxus, a painter and Imageur in brasse, 549.e
Euenor, a writer in Physicke, 112.l
Euenor a Painter, 534.g. father and master to noble Para-
 sus the Painter, *ibid.*
Eugallaton, an hearbe. See Glauco.
Eulauus, a river, out of which the kings of Persia use to
 drinke, 406.l
Eumarus, a famous Painter, 533.a. he first distinguished
 male from female, 626.k
Eumeces, a pretious stone, 626.k
 Famt-

Enmetres, a pretious stone, 626.k. called also Belus gem.
ibid.
Ennius, an excellent grauer, 483.e
Eunuchion, a kinde of Lectice, 24.k. why so called, *ibid.*
Eupatoria, the hearbe, otherwise called Agrimonie, 220.k
 the reason of the name, *ibid.* the description and ver-
 tues, *ibid.* k.l
Eupetolos, a pretious stone, 626.l
Euphorbia, an hearbe, 222.k. why so called, *ibid.* commen-
 ded by King Iuba in one entire booke, *ibid.* l. the descrip-
 tion, *ibid.* where it groweth naturally, 269.d
Euphorbium, the iuce of the hearbe Euphorbia, 222.l. the
 manner of gathering it, *ibid.* how it is sophisticated,
 223.a
Euphorbus, a Physician, brother to Antonius Musa the
 Physician, 222.k
Euphranor, an excellent Imageur, 502.g. his worke, *ibid.*
 he was besides a cunning Painter, 547.c. he excelled in
 Symetries, whereof he wrote booke, *ibid.* his imperfecti-
 on, *ibid.* his worke, *ibid.*
Euphrosynon, an hearbe. See Englossos.
Eupompus, a cunning Painter, 537.a. his worke, *ibid.* of
 great authoritie, *ibid.*
Eureos, a pretious stone, 626.l
Eurypice, a kinde of rish, 101.c. the properties which it
 hath, *ibid.*
Euros the river represented in brasse, 502.b. the praise of
 the workman thereof, *ibid.*
Eurostas, a pretious stone, 626.l
Eusebes, a pretious stone, *ibid.*
Euthyrates, sonne to Lysippus, a singular Imageur, 499.f
 wherein he excelled, *ibid.* his worke, *ibid.*
Eutomon, what bea-
 re, 217.e
Eutychides, an imageur famous for the river Eurotus of
 his portraying, 502.b
Eutichides, a painter, 549.f
E X
Exacos, an hearbe. See Centaure the less.
Exagon, one of the Ophiagene, 199.a. not hurt by serpents,
 but licked by them, *ibid.*
Exchange and bartering ware for ware, the old manner of
 merchandise, 454.l
Excrements of man: bodie medicinable, 302.m
Excrements of mens bellie, a com. terposson, 270.k
Excrements of a sheepe baltered about their tailles, 351.b
 the medicinable properties thereof, *ibid.*
Excrecence of proud and ranke flesh, how to be taken away
 and repressed, 146.l. 158.k. 165.a.d. 167.a. 177.f. 264.k
 265.a. 273.e. 338.l. 447.e. 474.i
Excerations, bannings and cursings in a forme of words,
 thought to be of force, 296.i
Exedum, what bea-
 re, 206.g. the effects that it hath,
ibid.
Exercise of the bodie maketh much for health, 303.d
Extremus a pretious stone, 626.k
Exorcismes beleued to be auailable, 294.l
Exorcismes and prayers interrupted by vnluckie birds Di-
 ce, 295.a
Exorcisme of the Decy, *ibid.*
Expensa, what the word signifieth, 462.g
Experience, the first ground and foundation of Physicke,
 242.m.

Exsticative medicines, 178.b.k. 249.d.f. 264.m. 286.k
 320.m. 418.k.l. 421.e. 423.c. 471.e. 475.a. 506.m
 511.f. 516.b. 529.b.d.f. 558.l. 559.d. 588.m. 591.c
 See more in Desiccative.
Extracitive medicines, 595.c. See more in Drawing.
Exulceration by extreme cold or burning, how cured,
 432.g.
Exulceration of the bellie, how to be helped, 168.b. 318.g
 See Dysenterie.
Exulcerative medicines and raising blisters, 149.d. See
 Causticke.

F A

F
Fabianus a writer in Physicke, 303.e
Fabius (Cunctator) honoured with a graffe Coronet,
 and why, 116.m. saluted by the name of Father, by the
 regiment of Minutius, 117.a
Fabricius, a patron of frugalitie, 483.c
Facorous and blistered with Sunne-burning, how to be
 cured, 366.k
Face broken out, by what meanes healed, 422.k. how to be
 cleansed from freckles and pimples, 440.m. how to looke
 full, faire, and plumbe, 440.m. 441.a.b. how to be rid
 from spots and Lentils, *ibid.* b
Faint cold sweats, how to be remedied, 48.b. 49.f. 52.k
 58.g. 113.d. See more in sweats Diaphoreticall.
Faintings about the heart how to be helped, 134.l. 155.d
 See Swooning.
Falernum, a kinde of Amber, 608.i. why so called, *ibid.*
Falling sicknesse deteiled by the fume of Brimstone, 556.k
 by a perfume of Bitumen, 557.e. by the fume of leat,
 589.c. by what meanes else it may be disconered,
 335.d
For to prevent and cure the falling sicknesse, appropriat
 remedies, 40.l. 44.l. 49.f. 57.e. 60.k. 66.l. 69.b
 70.b. 72.k. 74.g. 78.k. 103.e. 107.e. 111.e. 119.d
 126.i. 134.m. 140.b. 142.l. 149.e. 157.a. 167.c
 171.e. 177.b. 178.i. 180.g. 181.a. 185.b. 218.g
 219.d. 239.a. 260.g. 273.e. 283.e. 299.f. 300.g
 301.d. 305.c. 309.e. 310.m. 311.b.c. 312.m. 314.k
 318.g. 335.a.b.c. 341.c.d. 378.f. 388.g. h. i. l. m
 389.a.b.c. 431.a. 431.c. 432.b. 445.c. 591.a
 626.b
for the verie fit of the Falling sicknesse, what remedies be
 comenient, 432.i. k. 445.c.d. a singular chyster for this
 purpose, 445.d
Falling sicknesse thought to be cured by drinking of mans
 blood, 293.c
False from an high place how to be cured, 350.i. See
 more in Bruises.
Families driving serpents away with their very presence,
 298.m
a Familie how to be kept in concord and agreement, 312.m
 how it shall be fortunat, 357.a
Fantasticall imaginations how to be prevented, 65.e. 133.c
Fantasticall but-vobins called Fatus, how to be driven a-
 way, 286.b. See Illusions.
Fat, a kinde of whear, for what to be used, 138.b
Fatuginum, an hearbe. See Fole-foot.
Favins in Horset, and scabs in bea-
 sts, how to be healed,
 111.2 128.l

The Table to the second Tome

of Plinies Naturall History.

128.f. 130.l. 161.e. 183.g. 184.g. 196.h. 218.k. 310.g
 338.l. See Scab and Mange.
 Farcins in horse-neckes how to be cured, 150.i. 281.f
 Fascinus, what it is, and of what force, 300.l
 Fastig precipit from all meat is medicinable, 303.c
 Fat of beasts, much esteemed, 319.b
 Fatnesse and corpulencie, what things doe procure, 134.k
 172.k. 303.d. 318.l. 445.c. what doth diminish,
 443.c. 294.m
 Fauces Linguis, what it meaneth, F E
 Feet benumbed with cold how to be recovered, 38.k. 334.k
 Feet pained and swelled about the ankles, how to be eased,
 185.d. 414.b. 560.b.
 Feet fretted, gaed, and excoriat, how to be remedied,
 334.k. 338.k.
 Feet scorched with heat of Sunne, how to be reduced into
 temper, 334.k
 Feet chapped, how to be helped, 431.f. See Fissures.
 Feet surbatted how to be eased, 334.k
 Feet galled by stubborne hooves, how to be cured, 334.l
 Feet of Kine & Oxen, how to be kept from surbating, 342.l
 Fel terra, an hearbe. See Centaure the lesse.
 Feilous how to be healed and prevented, 56.i. 64.m. 71.b
 140.i. 141.c. 144.k. 161.b.c. 167.a.d. 180.g. 188.m
 262.g. 300.b. 309.d. 320.g. 337.b. 370.l. 392.i.k
 419.b. 588.m.
 Fenwell, an hearbe wherein serpents delight much, 31.e. 77.b
 Fenwell cleareth the sight, 77.b
 Fenwell iuce how to be drawne, ibid. c. which is best, ibid.
 Fenwell of diners Kindes. ibid. d
 Fenwell much used in the kitchen, pastrie, and bake-house,
 ibid.
 Fennell-geant an hearbe. See Ferula.
 Fenigrecke, 87.a. 207.c. the sundry names that it hath, ib.
 why it is called Buceras and Egoceras, ib. the vertues
 thereof, ibid.
 Ferne of two Kindes male and female, 281.d. why it is cal-
 led in Greeke Pteris, ibid. the roots when and how to be
 used, ibid. e
 women must beware of Ferne, for feare of abort and bar-
 rennesse, ibid. f
 Oke Ferne, 280.l. the description, 78.i
 Ferula, what plant, 32.g. the description, ibid.
 the stalkes good to be eaten, ibid. how to be served up to
 the table, ibid. k
 Ferula an enemy to Lampries, 176.b
 posson to Horses, 13.d
 Ferulacea, what they be, 13.d
 Ferus Oculi, what hearbe, 234.l. the vertues thereof, ibid.
 Fevers periodical, what they be, 38.g. 314.b. how to be
 cured, ibid. i. 335.c. 445.e
 Fevers intermitted how to be cured, 38.g. 260.i. 310.b
 See more in Tertian, Quartan, and Quotidian.
 Feaver. See Diarie.
 Feavers called Stegna, what they be, 167.b
 Feavers advent, what remedies they require, 50.h. 70.b
 148.g. 160.l.
 Feavers cold, comming with cold fits, how cured, 260.b
 445.c. See intermitted.
 for Feavers in general, proper remedies, 187.b. 260.i. 310.i
 335.c. 446.l. 435.b. 609.b.

Feuerfew, an hearbe, 111.e. the description, ibid. the sundry
 names it hath, ibid.

F I

Figwort, an hearbe. See Celendine the lesse.
 Figtree yeldeth a milkie iuce, medicinable, 166.k
 Figtree albes medicinable, 167.f
 Figtree barke reduced into powder, what remedies it affour-
 deth, 168.b
 Figs, their properties good and bad, 167.a.b
 Filberds and Hazellnuts, 172.g. their medicinable vertues
 ibid.
 their dyscommodities, ibid. k
 Filicula, what hearbe, 251.a
 Fingers which were honoured with rings first, 458.i
 middle finger adorned with a ring in Brittain and France,
 ibid.
 Finials in house-tops who denised, 552.g
 Finkle. See Fenell.
 Fire what doth soonest quench, 472.h
 Fire anced by powerfull words, 296.l. See Eyre.
 Fishes reduced into 176 kinds, 450.m. their names accor-
 ding to the A B C.
 Fish glew, what vertues it hath in Physicke, 439.a. 441.a
 53.e
 Fishes cured by Persely, 442.l
 Fish broth is laxative, 429.c
 ordinance of king Numa as touching Fish,
 Fishes (small denoured by great, for what they are medi-
 cinable, 445.a
 sea-Fish in request at Rome from the beginning, 429.c
 Fishes, where they bee in steed of an Oracle, 404.k
 Fishes in some water all blacke, ibid. m. in what water they
 be all dead, 404.m. 405.a
 Fishes in the Arabian seas of extraordinary bignesse, 427.c
 the wit of some fishes wonderfull, ibid. b
 Fishes tame, and comming to hand, ibid. l
 Fishes lured with a whistle, ibid. i
 they giue preface of summe euent, ibid.
 Fishes tame, playfull, and wanton, within the poole of Ve-
 nus, 428.m
 Fishes about Pele tast all bitter, 429.a. where they be all
 of a sweet tast, ibid.
 where Fishes of the sea be naturally salt, ibid.
 salted Fish which be medicinable, 434.g. b. 440.g. b
 444.m.
 salt Fish in Italy may be made very fresh at Beneuen-
 tum, 429.b
 Fissures, chaps, and clefts in the fundament, how to be cu-
 red, 104.g. 105.e. 120.i. 146.k. 169.c. 187.e. See
 Fundament.
 Fissures or chaps in the feet how to be healed, 52.g. 128.b
 169.a. 183.d. 258.l. 306.i. 334.k. 351.c. See more in
 Feet.
 Fissures or chaps in any place of the bodie, what things
 doe cure, 128.g. 141.c. 159.d. 161.d. 169.a. 197.d
 320.g.
 Fistulae or hollow sores, what remedies are appropriat for
 them, 44.k. 49.a. 50.m. 61.c. 104.h. 130.g. 144.i
 146.l. 159.g. 181.a. 185.d. 201.c. 218.k. 264.j
 265.b. 279.c. 280.f. 285.c. 290.g. 307.c. 350.f
 430.h. 448.g. 470.k. 509.b. 510.k. See more in
 Vicers. 191.f
 Fistulae how to be kept open, 191.f
 Fistulous

Fistulous sores in the secret parts, how healed, 136.k. See
 Priuities.
 Fistula betweene the angle of the eye and the nose, how it is
 to be cured, 125.e. 146.m. 286.g. it is called Aegi-
 lop, 235.a
 Fistulae how they are bred in any part of the bodie, 262.b
 61.b. 143.a. 162.b. 260.i. 313.a. 314.i. 316.l.
 Fits cold and shaking in an ague, how to be put by, 57.d
 Fits otherwise of chill cold how to be eased, 57.f. 61.a. 67.d
 See more in cold.
 Five-finger or five-leaved grasse. See Cinquefoile.

F L

Flage what hearbe. See Xiphion.
 Flagecke diseased how to be cured, 37.e. 40.k. 54.i. 275.o
 Flatulencie. See Venositie.
 Cn. Flautius for what demerit he was created Edile curule
 and Tribune of the Commons, 457.a.b
 Flax the wonderfull power thereof, 1.d. e.f
 the plant thinneth apace, 2.b. the seed how it is sowne,
 how it commeth up and groweth, 2.i
 Flax of Spaine, 3.a.b
 Flax of Zoela, 3.c
 Flax of Cumes, ibid.
 Flax of Italy, 3.d
 spinning of Flax what manner of worke, 4.k
 Flax how to be dressed, hatched, spinn, beaten, woven,
 &c. 4.k. l
 Fleawort, the hearbe described, 233.c. the diuerse names it
 hath, ibid. the nature and vertues, ibid.
 Fleas how to be killed, 60.l. 63.c. 120.l. 124.m. 186.b
 against the breeding of Fleas, 387.f
 Fleagme viscos, sticking in the chest and throat, how to be
 cut and dissolved, 46.g. h. 64.l. 73.c. 74.g. 107.d. 121.e
 122.b. 130.i. 167.d. 173.c. 183.c. 198.i. 200.i. 206.i
 246.g. i. 257.a. 277.b. 329.b.
 Fleagme and fleagmaticke humors how to be purged down-
 ward, 72.b. 75.c. 140.b. 150.b. 170.g. 172.b. 182.b
 185.c. 186.g. 198.l. 218.i. 250.l.m. 251.a.b. 252.b. l
 281.b. 288.g. 291.b.
 Flemmings used Flax, and made linnen in old time, 2.l
 Flestranke and prand in vicers how to be repressed, 50.m
 61.b. See more in Vicers and Excrecence.
 Flest meat how it may be kept fresh and sweet all Summer
 long, 71.4
 how it is preserved from maggot and corruption, 342.i
 Flexumines at Rome, who they were, 461.a
 Flint stone, where it is cut with the saw, 588.i
 Flory of Painters, what it is, 531.b
 Flus-Salis, i. Sperma Ceti, 416.k
 Flus or floure of Antimonic, what it is, 474.g
 Flours that bring tidings of the spring, 92.g
 Floure-de-Lis root medicinable, 87.d
 Floure-de-Lis where the best groweth, ibid. d. e
 Floure-de-Lis of Myricens of two sorts, ibid. e
 Floure-de-Lis called Rhabdantis, and why so, ibid.
 why it is named Rhabdantis, ibid. the ceremonious
 manner of taking up the root, 87.e. f
 Floure gentle, surpasseth all flours for pleasant colour,
 89.a. the description and nature thereof, ibid. why it is
 called Amaranthus, ibid. b
 Spring Flowers, 92.g
 Summer Flowers, ibid. k

Autumne Flowers, 92.2
 Flowers of hearbes, different, 19.f
 Flowers and their varietie, 79.e. f
 Flowers differ in smell, colour, and in ice (i. a. s. t.) 86.l
 Flowers in Egypt, why they sent not well, 87.b
 what Flowers be employed in guirlands, 89.e
 Flux of the stomacke or Liske called Celiaca passio, how to
 be staid, 39.c. 43.d. 49.d. 55.c. 59.d. 66.b. k. 68.b. 73.d
 76.g. i. 106.l. 108.g. 111.a. 122.g. 124.k. 128.l. 139.f
 144.i. 147.b. 148.b. i. 163.c. 164.g. l. 151.f. 153.c. f
 156.g. 158.g. i. 165.b. e. 167.f. 168.g. 172.l. 174.k
 177.c. f. 178.k. 188.l. 192.b. 195.c. 196.g. m. 197.e
 216.b. 249.a. 250.g. 285.d. 289.c. 291.d. 307.c
 318.l. 332.g. 331.b. c. d. e. f. 352.b. i. 353.b. c. 382.l. m
 422.l. if it be inneterat, and of long continuance,
 418.k.
 Flux called Licenterie how staid, 165.e. See Laske.
 Flies where they are not at all, 95.b. how to be killed,
 220.g.
 Flies willese creatures, 364.k. they flie like clouds out of
 the territorie of Olympia at a certaine time, ibid. upon
 what occasion, ibid. their heads, blond, albes, &c. yeld
 medicines, ibid.

F O

Famur Bubulum, what hearbe, 282.g
 Fole-foot the hearbe, why called in Greeke Asarum, 86.g
 Fole-foot, another herbe, called in Greeke Chamaleuce, and
 in Latine Farfugium, 199.a. the description, ibid.
 the vertues that it hath, ibid. b
 why called Dechion and Tussilago, 246.i. two Kindes of
 it, ibid.
 wild Fole-foot, a direction to find water, 246.i. the descrip-
 tion thereof, ibid.
 the second Fole-foot called Salvia, described, ibid. k
 Fome of a Dog and Horses mouth, how they were lively
 painted by chance and fortune, 542.i
 Fome of water medicinable, 414.b
 Food of light digestion, 141.b
 Forke fish. See Sea-Puffin.
 Formacei, what walls they be, 555.b
 Fortune or Chance accounted a goddesse, 270.l
 Fortuna huiusce diei, 497.d. a temple for her at Rome, ibid.
 Forum of Rome spread with caltraps, 5.e. and why, ibid.
 pased with fine workes in colours, ibid.
 Forum of Augustus Caesar at Rome, a sumptuous building,
 581.f. what Caesar paid for the plot of ground where
 this Forum stood, 582.g
 Foundrie, i. the feat of casting images and workes of met-
 tall so excellent, that it was ascribed to some of the gods,
 487.c. an ancient art in Italy, 493.c
 a Fontaine purging and cleansing of it selfe euerie ninth
 yeare, 411.b
 Fontaines which be naturally hot, doe engender salt,
 414.m.
 Fontaines yelding diuerse sorts of water, some hot, some
 cold, others both, 401.c
 Fontaines yelding water not potable for beasts, but me-
 dicinable onely for men, ibid. d
 Fontaines giuing names to gods, goddeses, and cities, ibid.
 Fontaines standing upon diuerse minerals, ibid.
 Fontaines of hot waters able to seeth meats, ibid. e.
 Licinian Fontaines hot rising out of the sea, ibid.
 Lll 3 red

The Table to the second Tome

red fontaines in Ethiopia, 402.m. the vertues of
them, *ibid.*
a Fontaine yielding water resembling wine, 403.c
a Fontaine casting up an vntuous water, serving instead
of oyle to maintaine lampes, *ibid.*
a Fontaine feeding up with water of a sweet smell, 407.b
the reason thereof, *ibid.*
number of (Foure) forbidden in some cases, 305.f
Fox greace, gall, and dung effectfull in Physicke, 324.b
Fox pizzale medicinal, *ibid.*
Fox tongue medicinal, 325.d
Fox tails described, 99.b
Foxes, how they may be kept from Geefe, Hens, and Pul-
laine, 342.k

F R

Fractures or bones broken how to be knit and souldered,
58.k.119.d.183.a.200.l.233.b.275.f.335.e.394.k
412.k
Freckles how to be scourd out of the face, 140.m.161.b.e
168.k.173.c.174.l.175.b.303.g.314.k
See more in Face and Visage.
Fresh water at sea how Saylers may haue at all times,
413.f.414.g.
against suddaine fighes and feares, what remedie,
315.d
sea-Frogs, fishes medicinal, 434.i.440.b.i.k
ibid.
river-Frogs medicinal, *ibid.*
a Frogs tongue will cause a woman to answere directly to
questions in her sleepe, and to tell all, 434.i
of Frogs, Magicians report wonders, *ibid.*
Frogs, a good bait for Purple fishes, *ibid.*
Liver of a Frog, 434.l. medicinal, 439.a.b.c
Frugallie exiled out of Rome, 483.c
Fruits, which be hurtfull, 163.d
in Fruit gathering what ceremonious words used, 297.b
Fruentis made of Spelt, what medicinal vertues it
hath, 139.c
Fruentis made of the common wheate Triticum, 140.l
the use thereof in Physicke. *ibid.*

F V

Fucus Marinus. See Sea-weed.
a Fuke for a red, 327.c
Fugitive flames arrested by charmes, and staid from run-
ning away, 295.c
Fugitive stone in Cizycum, why so called, 581.b
Fullers thorne, what operation it hath, 195.b
Fullers hearbe. See Radicula.
Fullers, why neuer goutie in their feet, 306.b
how they may walsh and scoure their cloth, 311.c.560.k
Fullers earth Cimolia, what use it hath in Physicke, *ibid.*
used to scoure clothes, *ibid.* See Cimolia.
the ait Metella providing for Fullers, 560.k
Fullo, a kinde of Beetle sie, 390.l
L.Fulvius Argentarius committed for wearing a chaplet
of Roses, 81.d
Fumterrie, the second kinde of Capnos, an hearbe, 236.l
the vertues thereof, 247.c
a Funerall cloth will neuer after be moth-eaten, 299.c
for the Fundament, seat, or tuill, and the infirmities thereof
in generall, appropriat remedies, 60.g.72.k.102.k.106.l
107.a.121.d.144.i.146.k.155.f.165.b.167.d.174.k
333.c.d.352.k.384.l.

accidents of the Fundament, proceeding of cold and mei-
sture, how to be cured, 184.b.196.g
chaps and Efflures in the Fundament how to be closed and
healed up, 183.d.195.c.196.b.280.l.333.d.351.a.e
384.l.444.i.k.519.d.
Excreescences and werts there growing, 126.l.133.c
134.g.384.l.507.f.519.d.
Fundament or seat called, 255.f.384.l.444.i
Fundament or seat, hanging forth or perverted, how to be re-
duced and setled, 103.c.106.m.156.g.164.g.193.b
195.a.256.g.384.l.398.g.444.k
blind hemorrhoids in the Fundament or bigs incident ther-
to, how to be cured, 384.m.444.i.516.i.519.d.521.b
See more in Piles.
hemorrhoids running extremely, how to be staid, 385.a
See more in Hemorrhoids.
Fundament enflamed and apostumat how to be cured,
131.d.141.e.146.k.161.a.333.c
exciserat, how to be healed, 159.d.175.a.192.b.196.k
197.a.320.i
Fu. g. what kinde of M. shewmes, 132.m. their generation
and sundry kindes, *ibid.*
Furrier Place, 480.k
Fusses and Fusse hats. See Musbremes.

F Y

Fyleb scraped from wrestlers bodies, consisting of sweat
and oyle together, on what causes medicinal, 303.a
Fy. shewmes from the walls of wrestlers places, thought to
be medicinal, *ibid.*
Fyre medicinal, 596.b
the wonderfull power of Fyre, 598.m. the operations
thereof, 599.a
how to fy, whether Fyre consume or engender more,
599.b.

G A

G Ads of Steele quenched, what effects they doe worke,
250.i.
Gaades, a stone, why so called, 589.b. the nature thereof, *ibid.*
Gagates, the heat stone, 589.b. why so called, *ibid.*
the description and generation thereof, 589.c. the na-
ture, *ibid.*
Gall of a Banse good for the cares, 325.d
Gall of greater beasts, what operation it hath in Physicke,
321.a.
Gall of smaller beasts what vertue it hath, *ibid.*
Gall of Bulls, for what good, 321.a
Gall of beasts, how to be ordered, prepared, put up, and
kept, 321.b
Gall of an horse recoiled at a poison, 321.b
Galls betwene the legs how to be skinned, 146.k.181.c
185.b.187.f.189.c.334.g.474.i. how to be anoided,
256.g. if they be exulcerat, 474.i
Galled skin or fisted off in any place, how to be healed, 43.f
60.g.101.b.161.d.178.g.184.i.185.b.192.i.197.d
265.f.287.d.303.c.319.d.350.i.
Gall-nuts of diuerse kindes, 177.e. their vertues in Phy-
sicke, *ibid.*
Galbanum, how to be chosen, 179.f. the vertues it hath, *ibid.*
not good in the strangurie, 180.i
Galactitis, *ibid.*

of Plinies Naturall History.

Galactitis, a pretious stone, 626.m. why so called, *ibid.*
some name it: Lencographos, Leucas, and Synnephites.
ibid. it causeth obliuion, 627.a. it breedeth store of milke
in nources, 626.m
Galactites, a kinde of Emeraud, 627.a
Galana, Lead-ore, 472.k.517.c
it serueth to trie siluer, 472.k
Galacos, a pretious stone, 627.a
Galangall, what hearbe, 236.m. the description, *ibid.*
root, what vertues it hath in Physicke, 237.b
Galatian earth, medicinal, 561.d
Galaxius, a pretious stone, 626.m
Galedragon, an hearbe, 283.c. the description, *ibid.*
vertues, *ibid.*
Galeobdolon, 282.g. the description, *ibid.*
Galeon, an hearbe, *ibid.* the description, *ibid.*
Galeopius, an hearbe, *ibid.* the description, *ibid.*
Galeos the Lamprey, enemy to the Puffen, 430.b
Galeotis, what it is, 361.b
Galerita, a bird, good for the cholique, 383.c.d. how to be
prepared and used, *ibid.*
Gargulus, a bird. See Elernus.
Galleries open. See Terraces.
Galls, the priests of the order of Cybele, with what sword of
earth they queld themselves, 554.i
Gallus, a river in Phrygia of a strange operation. 402.m
Gandor goose, an hearbe. See Orchis.
Gangrens, what cureth, 75.c.76.k.139.a.141.f.142.m
144.g.148.l.149.d.167.a.172.i.173.d.188.l.282.b
512.b.
Ganymedes, the faire boy, most artificially represented in
brasse by Leocras, how he was ranshed and carried a-
way by an Eagle, 502.i
Gardens of great estimation in old time, 10.b
Gardens of Alcinus and Adonis, *ibid.*
Gardens in a citie who first deuised, 10.k
Garden pen lane in the aire, 580.b. who first deuised, 10.b
Garden comprised Heredium, 10.i
custodie of Gardens to whom ascribed, 10.i.k
Gardens commended, 10.k.11.a.12.k
Gardens, where to be seated, or how ordered, 13.a.b
Gardens, a sure commoditie, 12.g. the profit that a gar-
den yeeldeth, 12.h
a Garden sheweth a good or bad housewife, 12.b
Gardens gaue synnames to noble houses in Rome, 12.l
Gardens to be provided of water, 13.a
Garden-hearbes distinguished by their sundry parts and
uses, 13.c
Syrians great Gardiners, 41.a
Gargarismes, 102.k
Gargle in swine how to be helped, 216.l
Gardlands. See Garlands.
Garlicke the properties medicinal that it hath, 43.d
the discommodities thereof, 44.m
Garlicke how to be set and ordered afterwards, 21.f.22.g
Garlicke heads described, 21.d
Garlicke the conuirsants treacle, *ibid.*
Garlicke the Egyptians do sweare by, 20.g
Garlicke differeth one sort from another by circumstance of
time, 21.e
Garlicke causeth a strong breath, 22.g.h. how that is to be
preuented, *ibid.*

Garlicke vnset and comming up of seed. 22.b
how Garlicke and Onions are to be preferred for use, with-
out spurring, 22.d
Garlicke wild, or Crow-garlicke, called Alum, 22.k. the
use thereof, *ibid.*
Garlicke wilde called Vrsinum, 22.k
Garlick helpeth beasts that be ground in the bellie, and can-
not stalle, 45.a
Garon or Garum, a kinde of sauce or pickle, 12.i. why so
called, 417.e. of sundry sorts, 418.b
Garum serued to many uses, *ibid.*
Garum medicinal, 418.i
Garum Socorum, 417.f. of what request in old time, 418.g
Garon a fish, and the effects of it in a perfume, 417.e
whereof the sauce or pickle Garum was made in old time,
417.f. of what it was made in later daies, *ibid.* the
price, 418.g
Gisfidanes, a pretious stone, 627.a

G E

Gegania, a sumptuous dame at Rome, 488.l. exaoured
upon a foule ill-fauoured brasier, *ibid.*
Geli a bird. See Vulture.
Gelon a spring of water, why so called, 404.g
Gelotophilus, a magicall hearbe, working a fit of laughter
in them that tast of it, 204.g
Gemites, a pretious stone, 631.a
Gemma, a disease in old time, now cleane gone, 242.g
Genealogie of Pandora portrayed most artificially by Phy-
dias, 566.b
Genetoirs or Cods, swolne hard, pained, and exulcerat, how
to be remedied, 141.c.142.l.144.i.148.k.157.d.f
159.d.163.c.174.a.173.l.179.a.b.187.c.254.i.255.d
333.b.344.i.424.b.432.k
swelled with wind or waterish humors, how to be assuaged,
413.b.424.b.560.i.
exulcerat, how to be healed, 141.e.254.i.385.b
Genetoirs galled how to be skinned, 184.i
If one be relaxed, and hang downe untowardly, how to
be reduced, 385.b. how to be preferred from inflammati-
on, 422.b
for the Genetoirs in generall, appropriat medicines, 385.b
589.b. See Cods.
Gentian the hearbe, 221.c. how it tooke that name, *ibid.* the
description, *ibid.* the temperate thereof, and nature me-
dicinal, 221.f
Geometric necessarie for painters, 537.g
Geranites, a pretious stone, 630.i
Geranium an hearbe, 259.b. the sundry names and de-
scription, *ibid.*
Germaner, what hearbe, 198.b. the sundry names that it
hath, *ibid.* the description, *ibid.* why it is called Serrata, *ibid.*
the medicinal vertues that it hath, *ibid.*
Gernisa, the Senat-house at Sardis, 556.g
Gesser of a stork medicinal, 364.g
Gestation, an exercise for bodily health, 303.d. of diuerse
sorts, *ibid.*
Gethum, what hearbe it is, 20.k

G I

Giddinesse of head and braine. See Dizziness.
Gidd in sheepe, how to be helped, 218.k
Gillefloure of the wall, 104.g. the medicinal vertues that
it hath, *ibid.*
Girles, *ibid.*

The Table to the second Tome

Girls, how they may be gotten and conceived, 215.f. 257.b.
279.d. 288.m.
Gith, an hearbe. See Nigella.
G L
Glader-grasse. See Xiphion and Gladiolus.
Gladiolus what hearbe, 99.e. the use of the root, ibid.
Glasfe stone. See Specularis, and Talc.
Glasfe seling over head in arched roufs, 597.a
Glasfe the denife of making it, of sand, ibid.
the occasion thereof, ibid.
other waies to make Glasfe, 597.e
Glasfe of India the best, 597.f
Sidonians excellent Glasfe-makers, 597.f
Glasfe how it is made in Italy, 598.g. how in France and Spaine, ibid.
Glasfe made pliable and flexible, not apt to breake, 598.h
Glasfe-makers put downe, and wherefore, ibid.
Glasfe, which is best, ibid.
Glasfe will not abide the fire, ibid.
burning or fire glasfe, 605.c
Glasfe cometh nere to Christall, 598.f
broken Glasfes how to be soldered, 598.f
looking Glasfes or mirrors denifed by the Sidonians, 597.f
Glaucius a writer of Simples, 79.a
Glaucion, an hearbe, 282.i. the description, ibid.
Glaucion, a iuice, ib. from whence drawne, ibid.
Glaucium, a kinde of Poppie, 69.a
Glaucumata, what imperfections in the eies, 366.h. how cured, ibid.
Glaux, an hearbe, 282.h. why called Eugaleston, ibid.
description, ibid.
Glanders in horses, how to be cured, 218.k. 254.m.
Gleba, a kinde of artificall brimstone, 556.k. for what it is good, ibid.
Gleffaria, an Island, 1607.d
Gleffum the same that Amber, ibid.
Glew the best and strongest, whereof it is made, 337.c.d
Glesfe in painting, 528.h. See Tonos.
Glossopetra, 627.a
against gluttonie and belly-cheere, an inueterd speech, 10.l
Glycer, a famous maker of floure chaplets and guirlands, 80.k.
Glycon, a writer of hearbes, 129.a
G N
Gnapthion, an hearbe. See Cudwort.
Gnats how they may be driven out of a garden, or killed, 32.m. 65.d. 154.b. 166.b. 277.e.
Gnawing and griping in the stomacke, how to be eased, 52.g
60.i. 64.b. 76.a. 110.k. 131.d. 136.g. 171.c. 307.c.
G O
Goats affoord many things contrary to serpents, 322.h
Goats neuer without a fever, and yet they yeeld a thousand good medicines, 322.i
Goats and Roe-bucks see as well by night as day, 325.a
the reason thereof, ibid. their blood medicinable, ibid.
their liver and the graine thereof medicinable, ibid.
Goats treddles how they be employed to make garden seeds grow, 33.e
Goats dung good for eies, 325.c
a Goat enraged how he may be ordered and tamed, 330.g
Goats milke cheese, wholesome, 325.a
Goats gall medicinable, 324.g. 325.b. how it is to be pre-

pared, ibid.
Goats milke medicinable, 324.i.
Confidia cured by Democritus the Physician, with drinking milke of Goats feeding upon the leaues of the Lentiske tree, 184.i
Goats dung how it serueth in Physicke, 324.i
Goats house burnt to ashes, medicinable, 322.i
Goats horne good in Physicke, 324.i
Goats how they may be kept from straying, 330.g
Gold a cursed metall, wherefore, 454.l
crowns of beaten Gold skewes by Claudius Caesar, 464.l
Gold laid up for treasure, 456.b. how much treasured up by Camillus, ibid.
Gold serued to set out souldiers gallantly to the field, 456.i
not worne at all in the house of the Quinty at Rome. 457.f.
Gold how employed at sacrifices, 461.c. excessively worne by souldiers in the campe, ibid. superfluous of gold used by the dames of Rome, ibid. f. abse of wearing gold both in men and women, 462.g. h. stamped for coine, ibid. i
at what time, 463.c. a scruple of gold in coine at what value taxed, ibid. d
Golden vessell abused by M. Antonius and Quene Cleopatra, 464.g
excesse of gold employed in buildings at Rome, 465.a. b
Gold why it is preferred before other mettals, 465.b. c
Gold wasteth not in the fire, ibid.
what miners yeeld gold, 466.k
Gold gotten in rivers is perfect, ibid.
the painefull toiler in getting gold-ore by cleaning mount- taines, 467.c
Gold gotten by Arrugia or cleaning mountaines, needeth no fire, 469.b
Gold artificially extracted out of orpiment, 469.d. it would not quit the cost, ibid.
Gold in the ore, of a diuers touch, ibid.
Gold ore hath ener siluer in it more or lesse, ibid.
the first statue of gold, 470.g
Gorgias Leontinus, the first man that caused his owne statue to be made of beaten gold, 470.b. the medicinable vertues of gold, ibid. i. k
Gold supposed to hurt hens couving and ewes in lamb, ib. h
Gold how it may be torrifed and cleansed from all the hurt- full qualitie that it hath, 470.i
Gold and siluer the softer the better, 473.a
no graver famous for working or graving in Gold, 483.e
Agrippina the emperesse in a mantle all of Gold, 466.g
cloth of Gold, ibid.
Gold first found and gotten three manner of waies, 466.k
Gold ore in some places sheweth ebb, ibid. l
Gold ore dugged out of pits, 466.m
Gold not subiect to rust, canker or offence, by vinegre and salt, 465.f
Gold may be spun into a thread and sownen, 466.g
K. Tarquinius Priscus rode in triumph, arrayed in a robe of wrought Gold, ibid.
Gold in Spaine perfect within the earth, and needeth no fi- ning, 465.e
the commendation of Gold above all other mettals, ibid. f
how Gold is melted, ibid. d
Gold soileth not the hands, nor coloureth with rust, 465.d
of all mettals it is driven out broadest, with the hammer, ib. N 70

of Plinies Natural History.

Nero the Emperour covered the theatre of Pompeius with gold, 464.l. Neroes golden house, ibid.
Goldfoile Praxestina and Questoria, 465.e
Philip K. of Macedonie noted for hauing a cup of gold vnder his head when he slept, 464.g
Agnon T. T. thought prodigall for buckling his shooes and pants with gold, ibid.
great masses of Gold as well in coine as otherwise in old time, 464.h
Golden-eye, the fish Scarius, how subtil to escape when he is taken in a weere or net, 427.d. e
Gonorrhoea, a disease, what is the remedie, 518.l
Goose-grasse, an hearbe. See Cluvers and Erith.
a Goose thought to besicke all Summer long, 353.a
Geese honoured at Rome, for what causes, ibid.
Gorgonia, a pretious stone, 627.b. the reason of the name, ibid.
Gongasus an excellen imageur and workman in cleij, 552.i
Gourds their nature, 15.m. when their seed is to be set or sowne, 15.a
Gourds of two sorts, 15.b. how they may be fashioned, ibid.
Gourds what kind of biggness, 15.c
the manifold uses of Gourds, 15.c. d
Gourd seeds how to be prepared, 15.e
Gourds what kind of use, 15.d. c. how to be preserved, ib. e
Gourd wild, 37.e. why called Somphos, ibid.
Gourd wild named Calocymbus, ib. how to be chosen, ib.
the operations thereof, ibid.
Gourds of the garden, and their vertues, 38.g. h
Gourds condemned by Chrysippus, 38.i
Gout h. u. no Latin name, 257.e. no old disease in Italie, ib.
Gout not incurable, 257.f. wearing away of it selfe with- out helpe of Physicke, ibid. cured also by the meanes of Physicke, ibid.
Sernius Clodius to be eased of a painefull Gout, benumbed his legs and feet, and made them paraliticke, 213.c
how a fit of the Gout may be brought to the feet, 315.f
Gout of the feet, how to be eased, 334.b. m. 379.c. 385.f
386.g. 419.d. 445.a. 447.c. 587.e.
Gout best, how to be helped, 70.b. 71.c. 129.c. 258.g. 278.i
423.f.
for Gout in any joint generally good medicines, 36.g. 37.a
38.k. 40.i. 47.d. 48.b. m. 49.f. 50.b. 52.i. 59.b. 61.a
67.a. 68.b. 78.b. 104.g. 106.g. 108.g. 111.b. 122.g. k
123.c. 128.k. 134.j. 137.a. 138.g. 140.h. i. 141.f
144.i. k. 148.l. 150.k. 159.d. 160.m. 166.l. 168.i. 171.a
179.a. 180.k. 185.b. 186.b. m. 193.b. 195.d. 201.a
208.g. 213.k. 219.d. 224.k. 257.f. 258.g. h. i. 273.b. c
279.c. 301.b. 306.b. 307.c. 308.g. 309.d. 312.i
313.c. 317.c. 318.g. 319.d. 320.b. 334.i. m. 359.c
386.b. j. 403.b. 413.a. 414.b. 419.d. 422.i. m. 432.f
443.a. 445.c. 557.a. 588.g.
Gout or paines in lades, how cured, 144.m
Gout rash how to be cured, 128.h
G R
Grace of princes and potentates how to be obtained, 354.j
357.a.
Grace at the gods hands how to be procured, ibid.
Granius, a writer in Physicke, 301.e
Grapes black more vebement in operation than other, 147.d
Grapes how to be saved from peillaine, 148.g
Grapes white more pleasant than the blacke, 147.d

Grape eaten new gathered, what discommodities they bring, 147.f.
Grapes codice in wine, what effects they haue, ibid.
Grapes preserved in raine water, 148.g. their medicinable vertues, ibid.
Grape stones, what operation they haue, 148.h
Grasse Aculeatum, why so called, and the vertues thereof, ibid.
207.a. three kinde of it, ibid.
Grasse guirlands at Rome in great estimation, 115.e
few attained to the honour of wearing them, 116.b
to whom, by whom, and wherefore they were giuen, ibid.
of what grasse they were made, ib. i. what generall capitaines were honoured with grasse coronets, ibid. k
Grasse growing in the skull of man or woman, medicina- ble, 302.g
Gratia Dei, an hearbe, 225.c. why called Elaphobolicon, ib.
Gratian plate, 480.k
M. Gratidianus made an alt at Rome, against base and counterfeit money, 479.b. honoured therefore with siluer statues throughout Rome, ibid.
Grauell in kidnies and bladder what doth expell, 53.b
54.f. 126.i. 130.i. 131.c. 159.b. 171.e. 238.m
255.a. b. 273.e. 332.l. m. 351.f. 444.g. h. i. See more in Stone, ibid.
the paine occasioned by such grauell how eased, 253.g
Gravers in siluer, many were famous, 483.d. none in gold, 483.c.
Graue, how folke may be made that were vaine, 314.h
Greace of Swine used ceremoniously in old time, 319.b. c
with Greace, the bride striketh the dore-cheekes of her hus- bands house, ibid.
what Greace of swine is called Axungia, ib. the same is of great efficacie, ib. the reason thereof, ibid. the vertues of swines greace, ibid.
Greace of geese or other soule, how to be prepared, 369.c
Gracians, a man and woman buried quicke at Rome, 295.b
against Greek writers who haue set downe medicines made of the parts and members of mans bodie, 293.d
Greimile, an herb, 284.l. the wonderfull forme and feature of this hearbe, and the seed, ib. the vertues, ibid. m
Grenate of Carthage, or the Carchedonian Grenate, a preti- ous stone of the kinde of Rubies, 618.g. why it is called Charchedonius, ib. where it is found and how, ibid.
Grenates, like as all the sorts of Rubies, signe not cleane vp- on wax, 619.h
Grindstones, 593.a
Groine-batches or risings in the shawe called Pani, how to be cured, 105.e. 175.a. 250.i. 256.b. i. k. 333.a. 334.g
one unsightly cure thereof, 256.i
for other accidents of the Groine fit remedies, 256.h
274.m. 275.a. 277.e. 291.b. 301.b. 302.k
Gromphana, a bird, 399.d
Gromphena, what hearbe, 247.f
what Grounds yeeld good and wholesome waters, 409.b. c. d
Groundswell what hearbe, 238.i. the sundry names of it, ibid. the description and vertues, 238.k. l. why called in Greeke Erigeron, ib. l. why some name it Acanthios, others Pappos, ibid.
Grylli, what insects they be, 378.h. 379.d. their medicina- ble vertues, ibid.
Gryllus, the picture of a foole with his bel, bable, &c. 544.l
Grylli, all such pictures to make sport withall, ibid.

The Table to the second Tome

of Guirlands, 80. b. i. why they were called Strophion, 80. i
Guirlands and wofe-gates, called in Latine Serta and Ser-
vice, and wherefore, 80. l
Guirlands Egyptian, what they were, 80. l
winter guirlands what they were, 80. l
Tuscan Guirlands, what they were, 82. i
the use of Guirlands representing health,
ordinances concerning Guirlands wron at solemn
games, 81. c
the honour belonging to such Guirlands, 81. e
abuse in Guirlands, 82. g
Guirlands of flowers how they were employed, 82. g
Guirlands platted were the best, 82. h
superfluitie and excess in Guirlands, 82. h
costly Guirlands or chaplers of silke perfumed with daintie
odours, 82. h
Guirlands consist properly of flowers and hearbes, 82. e
Gums in generall their vertues medicinable, 194. a
Gums soone dissolve in vinegre, 176. k
Gum of Chamaleon called Lixia, venomous, 39. d. the re-
medies proper therefore, ib. 64. b. 153. b. 157. b. 182. m
277. c. 323. a. 323. d. 431. b.
Gums of young infants pained, how to be eased, 449. e
Gums saggie how to be knit and confirmed, 161. c
Gums swelled and impostumat, how to be allaid and cu-
red, 161. c. 238. b. 249. c. 419. b.
Gums sore, cankered, and exulcerat, how to be healed, 159. c
160. i. 287. d. 351. b. 509. a.
for Gums pained or otherwise diseased, generall medecins,
51. e. 63. g. 70. g. 102. i. 156. m. 158. k. 165. d. 169. c
177. f. 178. l. 184. g. 195. f. 197. d. 238. i. 272. i. 376. k
443. b. 509. e.
Gurrie in horses & other beasts, how to be staid, 41. c. 78. b
for the paine, wrings, and corosion in the Guts, proper re-
medies in generall, 37. e. 53. b. 60. i. 61. a. d. 62. i. 66. b
77. b. 187. c. 263. d. 41. d. 52. g. 72. l. 76. l. 77. e. 78. k
102. l. 105. c. 106. k. 109. b. 111. a. e. 174. k. 238. m
318. g. See more in bellie-ach and Wrings of Guts.
Guts exulcerat how to be cured, 38. i. 76. c. 107. e. 200. k
207. e. 249. c. 272. k. See more in Dysenterie,
and Bloudie flux.
grinding of the Guts in young children, how to be assuaged,
318. i.
to cleanse the Guts proper remedies, 272. k. 283. a. 443. a
Guts: the name of certaine people, 606. i
G Y
Gylding of marble, 466. g
Gylding of wood, 466. b
Gylding of brass, 466. b
Gylthead, the fyfth Aurata, what medicines it doth assourd,
433. d.

H A

H Abergion of K. Amasis wrought of linnen twist ex-
ceeding fine, 3. d
Haddocke fish hath a stone in the head medicinable, 445. e
Hamachates, a pretious stone, 623. c
Hamarites, a red Bloudstone, 367. d
Hemarites the Bloudstone described, 587. b
Hemarites, a meere minerall, 589. e. how calcined, 580. a
Hemarites, a meere minerall, 589. e. how calcined, 580. a

sophisticated, ibid. wherein it differeth from the stone
Schistos, ib. the medicinable vertues that it hath, ibid.
fine kinds of Hamarites or Bloud-stone, 590. g
Hamarites, a pretious stone, 627. e. why so called, ib. where
it is found, ibid. the wonderfull properties thereof accord-
ing to the vaine magicians, 627. f
Hamorrhis, a worme or serpent, 352. g. why so called, ibid.
against the hurt of the serpent Hamorrhis, wh. it remedies
435. e. 69. c. 148. k. 150. l. 153. b. 196. g. 352. g.
Hamorrhoid veins how to be opened, 42. k. 200. f.
Hamorrhoid veins running immoderately, how to be stopped
193. b. 256. g. 272. i. 511. b. 516. k. 519. d. 470. k
591. b.
Hemorrhoids abiding how to be eased, 199. f. 351. e
Hemur a mountain, yielding springs of water sodainly by
occasion of a fall of wood, 410. k. l
Haile-water hurtfull, 406. i
Haire shedding, how to be retained and recovered, 39. f
42. b. 47. e. 50. b. 56. i. 74. l. 78. m. 103. a. 113. c. 122. e
127. a. c. 128. b. 130. i. 163. c. 166. m. 174. k. 177. b
178. i. l. 183. d. 185. d. 191. c. 196. l. 205. c. 212. b
232. i. k. 239. d. 243. d. 272. b. 290. m. 291. a. 320. g
323. f. 324. i. 364. m. 437. f. 438. g. 446. l. 450. i
516. b. 521. a. 531. c.
Haire of mans head medicinable, 301. b. of a womans head,
in what cases effectuall, 307. b
means to cause the Haire to grow thicke on head or beard
where it was thin, 146. l. 161. d. 172. i. 185. d. 199. f
290. m. 316. l. 324. g. 364. i.
Haire of eye-lids growning crooked into the eyes, how to be
rectified, 397. f. 438. k. 557. d
Haire of eye-lids how to be kept from growing, 236. l. how
to be taken away, 312. k. how it may grow, 324. g
how preserved, 320. g
Haire of eyelids how to be kept from growing, 438. k. 439. c
Haire of eyebrows how to be trimmed, 102. k. how to have
a lousie blacke, 397. d. how to be fetched off, 302. g
324. l
how it shall grow no more, 127. a. 128. l. 181. b. 311. e
Haire how to be curled, 365. a
how Haire shall come up blacke, 43. d. 71. c. 127. a. 143. d
Haire how to be coloured blacke, 43. d. 71. c. 127. a. 143. d
163. c. 170. g. 174. i. 175. b. 178. g. 179. a. 184. b. 186. g
190. b. 194. m. 196. m. 268. g. k. 277. e. 324. i. 438. e
560. g.
what coloureth the Haire yellow, 162. g. 268. k. 328. f
432. k. what giveth haire a red colour, 158. b. 192. k
Haire how to be washed bright, 475. a
Haire growing upon a mole or wart of the face, some make
scruple to clip or stauce, 300. g
Haire how it shall grow upon scarred places, 364. l
Haire what hindereth it in growing, 339. f. 379. f. f.
397. b. c. 449. c.
Haire how to be preserved from hoariness, 249. e. 324. g
397. d.
Haire of a man-child not yet undergrowne, thought to bee
medicinable, 301. a. b
Halacimon, what it is, 441. e. the sundry kinds, ibid. their
description, ib. which is best, 441. d. their properties, ibid.
Halicacabus, a dangerous hearbe, commended by some,
112. l. the description thereof, ib. b. the hurtfull qualiti-
ties that it hath, ibid. k
Halicticon, a booke of the Poet Ouid, 427. d
Hallowing

of Plinies Naturall History.

Hallowing of houses against ill spirits and sorcerie, with
brimstone, 557. a
Halmitax, or Halmitaga, what it is, 420. b. where found,
ibid.
Halmitrida, a kinde of Colewoort, why so called, 27. a
Halum, what hearbe, 248. b
Hams of the legs pained, how to be eased, 305. b
Hammites, a pretious stone, and the description, 627. d
Hammochryfos, a pretious stone, 630. k
Hammons horne, a pretious stone, 627. d. the description and
properties, ibid.
Hanch. See Loins.
Hand swolne or broken out how to be healed, 106. m
to fit with one Hand in another and crosse fingered, w. at
effect it worketh, 304. m
Haresfoot, an hearbe, 250. i
feeding upon Hares flesh causeth f. like to looke faire, 341. e
Hares gall good for the eyesight, 325. d
A Hare burnt to ashes medicinable, 324. i
Hares remedi medicinable, 322. k
the sea-Hare venomous, 71. f. her wonderfull nature, 327. a
the feeding upon this fish dangerous to all living crea-
tures but the Sea Turtle, 427. a. b
those of India be killed with the touch of a man, 427. b
the symptoms incident to those that be hurt with the
sea Hare, 427. d
against the venome of the sea Hare, remedies, 71. f. 105. a
179. d. f. 231. b. c. 318. b. 307. f. 323. a. b. 363. f. 434. i
436. b. i.
against the venome of the Hardshew, remedies, 140. i
155. f.
Harmodius honoured with a statue of brasse for killing the
tyrant Pististratus, 490. g
Harmage in painting, what it is, 536. i
Harpadicon, an emplister made with brimstone, 556. m
why so called, 606. k
Harpax, why amber is so called, 462. b
Harpocrates his image worne in gold rings, 462. b
Haritrag, 229. f. the description, 230. g. the vice how it is
drawne, ib. the vertue, ib. a notable healer, 265. c
Harts horne burnt to ashes, is medicinable, 324. g
H E
Head how to be defended against the extreame heat of the
Sun, 424. k
Heauiness of the head how to be eased, 180. m. 269. e
304. k
Head scald, how to be cured, 433. b. 437. d. 438. b. 474. i
Head annoied with blisters and pusses, what remedie,
443. c
heat of the Head in children called Strinxis, how to be amen-
ded, 38. b. 69. e. 104. g
Head how to be purged of steame, 74. g. h. 511. b. how to be
preserved, 74. i. 102. l. 105. c. 109. e. 148. l. 189. d. e
Headach the greatest paine that is, except that of stran-
gurie and stomacke, 203. c
against Headach, proper remedies, 43. a. 44. i. 47. b. 48. l. 49. l
55. b. 56. i. 57. b. 60. g. b. 61. c. 65. b. 66. g. i. 68. b. 69. e
75. e. 76. g. 102. k. 101. g. 105. d. 106. m. 109. c. 126. b
127. b. 139. a. b. 146. b. 147. b. 155. e. 158. k. 160. b. l
161. b. c. d. 173. a. c. 174. i. 175. c. 178. m. 181. a. c
184. b. 187. d. 189. b. d. 190. l. 194. i. 198. k. 205. b
205. b. 207. a. 232. k. l. 233. c. d. 237. e. 272. b. 280. b
283. e. 288. g. 287. d. 302. l. 308. b. 310. l. 311. f. 315. f
324. i. k. 350. i. 359. c. 363. c. d. e. f. 413. b. c. 423. d. 433. a
438. b. 439. a. 510. i. 529. f. 573. b.
Headach incident ordinarily to women, how to be helped,
300. g.
Healing medicines, 50. m. 106. i. 135. d. 303. a. 351. f
more Healing medicines that doe conglutinate and skyn up,
283. e. 423. d. 471. e. 474. b. 506. k. m. 509. a. 595. e.
See more in Wound-hearbes.
Health, how it may be ever preserved, 72. g
Heart beate, what causeth, 180. m. See Hert.
Heat in fevers, stomacke, or otherwise, how to be cooled or
delayed, 135. d. 136. g. 148. g. 198. k
See Refrigerative.
Heating medicines, 180. i. 186. b. 198. i. 290. k. 319. c
320. m. 421. e. 521. a. 556. l. 588. m.
Heath, what plant, 187. f. the vertues that it hath, ibid.
Heating at the stomacke or heart, how to be helped, 62. b
72. b. 77. c. 102. k.
Hecale, how shee fasted prince Theseus, 131. b. 254. k
Hecate a rare peece of worke in marbles at Ephesus, 568. m
Hedynois, what hearbe, 48. g. the properties thereof, ibid.
Heguts, a famous image, 507. b
how worked, ibid.
Helysma, the drosse of silver, 474. b. the medicinable ver-
ties thereof, ibid.
Helena, his picture at Laniuvium, 525. d
Helenium, an hearbe, 108. b. the description and vertues, 3. b
See more in Elecampane.
Helianthe, a magicall hearbe, 204. b
Helicallus, the same hearbe, why so called, ibid.
Helicon hill full of good hearbes, 217. i
Heliocryfos, the flower, described, 92. i. 110. b. the proper-
ties which it hath, 110. b. i
Heliopolis the citie of the Sun in Egypt, 574. k
Heliopscopium, an hearb, 126. g
Heliotropium, an hearbe, ibid.
Heliorepium, a pretious stone, 627. b. the reason of the name
ib. c. the vauitie of magicians at touching this stone, ib.
Helxine, what hearbe, 123. b. the description, 273. a. why
called Perdicium, why named Helxine, 123. b
Hemerefos a picture of Parisus his making, 546. l. why so
called, ibid.
Hemerocallis, the hearbe and flower, described, 103. g. the
vertues thereof, ibid.
Hemina what measure at Rome, 113. e
Hemionis the name of a galley, painted by Protopogenes,
542. b.
Hemionium, what hearbe, 216. l. m. 248. b. the vertue
thereof, ibid.
Hemlocke a perillous hearbe what remedies for it, 121. c
153. b. 180. m. 252. g. 236. g. 280. g. 323. d. 277. c
323. a. i. rectifieth the malice that is in the iuice of the
the hearbe described, 236. g. it is a poison if selfe, 235. f
malefactors suffered death at Athens by drinking it, ib.
the vertues medicinable that it hath, ibid.
how it killeth them that drinke the iuice thereof, 236. b
Hempe good for cordage, 31. e. the description of it, 78. b
the seed when to be gathered, ibid. the stalk when to be
plucked and pulled, 31. f
dunse parts of Hempe described, ib. d.
which is the best, ib. d.
Hempe

The Table to the second Tome

Hempe-stems as big as trees,	32.g	standeth at Rome upon the bare ground without a Pillar,	570.g
Hens eggs. See Eggs.		Hercules Triumphant, an image at Rome, why so called,	493.f
Hens flesh put into melting gold, what it worketh,	359.d	Hercules Oetaeus of brass, in what habit and countenance portrayed,	504.m. 505.a
Hens dung, what part of it is medicinable,	363.e	three titles thereupon, 505.a. unknown who was the workman thereof,	504.m
Henbane, a dangerous hearbe, 215.c. and the remedies against the poisonous qualitie thereof,	39.d. 43.e. 69.e. 121.c. 136.i. 308.g. 323.a.	Hercules his statue of iron and Steele, wherefore,	414.g
Henbane found by Hercules, 215.a. the sundry names that it hath, ib. what vertues Henbane hath,	228.g	Hermes, what images,	569.b
many Kindes of Henbane, and their descriptions, with their properties good and bad,	215.b.c	Hermestas, what composition,	204.b
Henni, a pretious stone, so called among the Indians,	628.g	the wonderfull operation thereof,	ibid.
the description thereof,	ibid.	Hermippus, a writer, 372.h. he commented upon the Poeme of Zoroastres concerning magicke,	372.l
Hepatites, a pretious stone,	630.b	Hermodorus honored with a statue, erected upon a colunne at Rome, for translating the lawes of the twelve tables,	491.c.
Hepaticon, a kinde of brass mettall masculine, 488.g. why so called,	ibid.	Herophilus, a singular Physician, he cured altogether with simples, 242.k. he first searched into the causes of diseases, 243.b. his Apothegme as touching the operation of white Elebore, 219.b. he altered the course of the former Physicke, 344.i. he observed the pulses,	ibid.
Hephestites, a pretious stone, 627.c. the description and triall, ibid. where it is found,	ibid.	Hermes, a running cancerous sore, called f some a Wolfe,	394.b.
Hepaphonon, a gallerie at Olympia, why so called,	581.c	Herpes, a worme, soveraigne for the sore of that name, 394.g	
Hepapleuron, one of the names of Plantaine, and why so called,	223.c	Hert fainting how to be relieved,	37.d. 60.f. 238.m
Heracleon Siderion, why so called, 215.a. the description, ibid. the vertue that it hath,	ibid.	Hertlesse how to be recovered,	136.g
Heracles a Physician, 66.m. and a writer,	41.b	Hert trembling and beating, how cured, 312.i. See more in trembling,	87.c
Heracles, a notable painter,	69.a	Hesperis the herb, why so called,	
Heracleon, an hearbe, See Nennaphar.		H I	
Heraclius Lupis. See Touchstone.		Hiberis an herb, and denised name, by Sernilius Danocrates, 224.k. the description, ibid. the vertues in Physicke, ib. how to be used,	ibid.
Herbes which come up soonest after they be sowne,	221.l	Hibiscum, or Hibiscus, what herb it is, 40.b. the medicines that it doth afford,	ibid.
which be late ere they shew above ground,	ibid.	Hicesius a Physician and writer,	41.b. 123.a
Herbes of the garden come up by diverse meanes,	32.b	Hieracia, what hearbe, 45.d. why so called,	ibid.
Herbes are subiect to diseases,	ibid.	Hieracites, a pretious stone, 627.d. the description, ibid.	
Herbs losing the companie of other herbs,	30.l. 31.b	Hieracium, a collyrie or composition, 508.m. the vertues medicinable thereof,	509.a
Herbs why they be no more of them knowne,	211.d	Hierobotane, an hearbe. See Vernaue.	
Herbs awoided with vermine,	32.i	High-taper. See Lungwort.	
Herbs restoring to life againe,	211.b	Hicket or Hocquet. See Yex.	
Herbs differing in tast and otherwise,	33.f	Hickway, a bird envious to the gathering of Paeonie, 214.i	
Herberie in old time yeelded a reuennue to the state of Rome,	12.g.	282.l.	
how we come to the knowledge of Herbs,	211.c	Hills, some admit raine and are Greene with woods on the North side, some one the South side onely, and others all ouer,	408.k
Herbarists. their maliciousnesse,	105.e.f	Hinds not enuious to mankinde, but doe shew vs medicinable beards,	255.c
Herbs written of after diverse sorts,	210.b	they haue a stone in their excrements or wombe that is medicinable,	339.c
Herbs are of mightie operation, and yet the opinion of them is greater,	211.c	bones found in the heart and wombe of an Hind medicinable,	ibid.
Pythagoras wrote of Herbs, and attributed their inuention to the Gods,	211.a	Hippace, what it is,	318.l
Herbs growing upon statues, 205.b. of what effects such are,	ibid.	Hippace, another thing,	331.c
Herbs some will continue longer than others,	291.e	Hippiades, certaine images resembling women,	569.e
Herbs haue eternised the names of the inuention,	208.m	Hippoc, what hearbe,	223.f
213.a.		Hippocrates the Physician, 71.b. when and where hee flourished, 343.f. the first Clinicke Physician,	344.g
M. Cato the first Roman who wrote of Herbs,	209.b	he first reduced Physicke into an Art, 242.i. he dealt onely	
C. Valgius wrote of Herbs, and dedicated his book to Augustus Caesar.	209.c		
Pompeius Lenaxus wrote of Herbs,	ibid.		
Herbs portrayed in colours giue no great light to the reader,	210.g. h		
Herculanea, certaine pismires medicinable to scoure the skin,	377.d		
Herculanens, a riuieret about Rome,	408.b		
Hercules the patron of the Carthaginians, why his image			

of Plinies Natural History

onely with simples, 242.i
Hippocum, a Magician, 372.i
Hippolytus raised from death by Esculapius, 343.e
Hippomanes, a venomous thing, 326.l
Hippomarchus, what kinde of Fennell, 77.c
Hippomax the Poet, how he was abused by Anthemus and Bupalus, 564.m. how he was reuenged of them, ibid.
Hippoc, an hearbe, described, 121.a. the reason of the name, ibid.
Hippheon. See Epithymum.
Hippophaston, 283.e. the description, ibid.
Hippophyes, an hearbe, described, 120.m. the reason of the name, 121.a
Hippuris. See Equistum.
the Greeke writers varie much about the name of this hearbe, 263.c. why it is called Anabasis, ibid.
H O
Hogs grease how to be prepared and tried, 320.i
See Greace.
Holcus, an hearbe, 283.d. the description, ib. the vertues, ib. why it is called Aristida, ibid.
Holland fine linnen made in old time, 2.l
Holme oke, what vertues it affoordeth in Physicke, 177.d
the graine of Holme oke medicinable, ibid.e
Holocryfos, an hearbe, the vertues, 106.i
Holocheanos, a kinde of rush, 100.k
Holosphyratum, what kinde of Image, 470.g
Holosteon, an hearbe, 283.d. why so called, ibid. the description, ibid.
Homer the Poet, Prince of learning, and father of antiquities, 210.l
Honey commended and compared with Laser, 133.c
Honey, when and where it is venomous, 94.g
how to be discerned from that which is wholesome, 94.b
what symptoms happen to them that eat of this honey, 94.i. the present remedies of this kinde of poisonous honey, 94.i. 362.k. 433.d. the singular properties that honey hath, 135.d. the discommodities of honey, 135.e
Honey called Menomonon, and why, 94.k
Honey of Carina, medicinable, 95.b
Honey-combes their vertues, 137.b
Honey-combs wholesome and hurtfull, in one and the same hune, 94.l
agut or surfet of Honey how to be helped, 433.e
Honey wherein Bees haue been extinct or stifled, medicinable, 362.k
Hoplites, what pictures, 536.g
Horatius Cocles his statue erected upon a colunne at Rome, for making good the bridge against king Forsena, 491.c
Horehound, an hearbe, 74.m. the sundry names that it hath, ibid. the iuice of Horehound, of what vertue it is, and how to be used, 75.a
Horehound to be taken warily for danger of exulceration of reins or bladder, 75.c
Horehound of two sorts, ibid.
sinking Horehound, 272.g. the sundry names, description, and vertue, 278.b
Hormeson, a louely pretious stone, 627.e. the description, ib.
Horminodes, a pretious stone, 627.d. the reason of the name, ibid. the description, ibid.
Horminum, a kinde of graine or corne described, 144.k. the vertues that it hath, ibid.
Hornets sting, what remedies therefore, 40.b. 56.m. 75.f
110.d. 153.b. 166.l. 173.a. 361.d. 418.m.
Horse-taile, an hearbe, 263.b. the vertue that it hath in waisting the swelled spleene, ibid.
Horses haue agues, and how to be cured, 260.k
Horse dung Greene, & burnt into ashes, medicinable, 325.e
Horse-flesh and horse dung aduerse to serpents, 322.k
Horses how they shall neuer tire, 341.c
wild Horses are medicinable, and more than tame, 323.b
Horses laden with fruit are soone wearie, 176.b. what remedie, ibid.
riuier-Horse taught vnto the feat of Phlebotomie or Blood-letting, 316.k. he yeeldeth many medicines, ibid.
his blond Painters vse, 316.l
sea Horse Hippocampe medicinable, 436.b. 437.f. 440.d
haw in Horse eyes how to be cured, 438.l. See Eyes.
Horses and mares pained in staling, how to be eased, 339.b
pained in the guts, or vexed with the bots, how helped, 399.c.
Horses and asses tired, how to be recovered, and made lustie, 153.c. staling drop by drop how to be helped, 354.m.
Horseleeches if they be swallowed downe in drinke, are venomous, 323.c. the remedies, ibid. 356.b. 361.d
Horseleeches medicinable, 438.g
Horseleeches how they draw blood, 447.b. their vse in Physicke, ibid. the discommodities that ensue in applying Horseleeches, 447.c
how they fall off from the place whereto they stuck, 447.c
the danger in plucking them off, ibid.
how they may be forced to fall off as they are sucking, 356.b.
how to be taken off without danger, 447.d
Messalinus died by setting a Horseleech to his knee, 467.e
Horsefesse occasioned by a rheume, how to be helped, 71.c
271.d. 275.e. 289.d. 352.g. 378.h. See more in Voice, and Throat.
Hortensius the Orator set great store by the image of Sphinx, 496.l. how M. Cicero scoffed at him for it, ibid.
Hortensius, what kinde of bulbe, and their vertues, 52.l
Horus K. of the Assyrians deuised a medicine against drunkennesse, 399.c
Hosithanes a writer in Magicke, 300.m
L. Hosilius Mancinus attained to be Consul by decyphering vnto the people of Rome the picture of Carthage by him assaulted and forced, 526.l
Hote waters or bathes naturall, for what diseases in general they be good, 401.e.f
Hote waters naturall be not alwaies medicinable, 412.i
See more in Bains.
Howlets, by a secret antipathie in nature, be most aduerse to Horseleeches, 361.d
Hounds tongue, an hearbe, 223.d. why it is called Cynoglossos, ibid. two Kindes thereof, ibid. their description, ib.
Housleeke, what hearbe, 237.c. two Kindes thereof, ibid. their description, ibid.
Housleeke chasceth away cankers and other wormes out of a garden, 32.l. the sundry names that it hath, 237.c. why it is called Stergeithron, ibid. why called Hypogeson, ib. named commonly in Latine Sempervivum, 237.d
H I
Hucklebone diseased, how to be holpen, 143.f. 149.b. See more in Sciatrica.
M m
Hulvers

The Table to the second Tome

Huluer or Hollie tree, 194.e. the medicinale operation, ib.
Hunger whether it be good in diseases, 140.l
Hunger how it may be put by or satisfied, 120.b.223.f
Hungrie worme in the stomacke, how to be repressed and cured, 259.d. See Phagedana.
Hurds or Hirds. See Tow.
Husked barley, 139.c.d. whose inuention, ibid. the vertues that it hath in Physicke, ibid. See more in Pitiana.
H Y
Hyacinth the floure, why so called, 92.i. where it loneth to grow, 110.k
Frenchmen dye their cloth with it for default of graine, 110.k. other properties and uses that it hath, ibid.
Hyacinthizontes, what Beryls they be, 613.c. why so called, ibid.
Hyæna the wild beast, yeeldeth from sundry parts of her bodie many medicines, according to the Magicians, 311.c
the very bodie of the Hyæna, ransbeth and allureth the senses of man and woman, 311.d
Hyæna chargeth the sex each other yeare, 311.d
aduerse to Luzerns or Panthers, 311.d
how the Hyæna shifter in hunting, 311.e. she doth intoxicate the head of the hunter, ibid.
the vrine of great efficacie, 203.d
Hyænes, how they be hunted and taken, 311.e
Hyæns haire saued as a medicinale thing, 311.f
the skin of their head counted medicinale, ibid.
their gall emplied in Physicke, ibid.
the graue or dripping of their liver esteemed medicinale, 312.g
what parts besides are used in Physicke, 312.g.b.i.k.l.m
313.a.b.c.c.
Hyæna, a pretious stone, 627.e. the reason of the name, ibid.
where it is found, ib. the vertues thereof according to the magicians, ibid.
Hydargyrum, is quicke-silver artificiall, 473.c
when it is and how it is made, 477.d
a venie pison, ibid.e
used in gilding silver, and otherwise, 477.e
Hydrocele, a kinde of rupture and descent of humours into the bag of cods, how to be cured, 58.i
Hydrolapathum, what kinde of Docke, 73.b
Hydromel, what kinde of mead, 136.g
two kindes thereof, ibid. how made, 136.g.413.e
the vertues and operations thereof, 136.g
the discommodities that come thereby, 136.k
how used, 413.e. wherefore rectified, ibid.
Hydrophobie, what it is, 363.a. the remedies of this fearefull accident, 309.f.362.l.433.c.d.437.g.516.g.
See more in mad Dogs biting.
Hydrus, a kinde of water-snake, 444.i. in some cases medicinale, ibid. See more in Enhydrys.
Hyginus a Greeke writer in Physicke, 54.i
Hygrem-plastron, what kinde of emplastre, 516.k
the composition thereof, ibid. in what cases used, 630.i
Hyopthalmus, a pretious stone, 620.k
Hyophrus, an hearbe, 283.d. the description and vertue, ib.
Hypanus, a river, 411.c. sometimes it runneth under, and otherwhiles above Borsithenes, ibid.
Hypecoon, an hearbe, 283.b. the description and vertue, ib.
Hypericon, what hearbe, 255.a. the names thereof and their description, 255.b. a second kinde described, ibid.

Hypobarys, a river, 606.l. what the name signifieth, ibid.
Hypochondriall griefs, and the remedies thereof, 39.b.277.d
See more in Glanke.
Hypocisthus, an hearbe, 190.k.249.e. where it groweth, ib.
two kindes thereof, 249.e. how itooke that name, ibid.
Hypogeson, what hearbe, 237.c. See Houslecke.
Hypoglossa, an hearbe, 284.g. the description, ibid.
Hypophlomos, what hearbe, 235.b
Hyslope an hearbe, contrayry to Radish, and corrected thereby, 40.g. what Hyslope is best, 233.a. the properties that it hath, ibid.
Hyslope according as it is taken, purgeth upward or downward, ibid.

I A

I A, what Violets they be, 85.d
Iace, a kinde of Corall, 429.d
Iacinct, a pretious stone, 621.d
how it differeth from the Amethyst, ibid.
sundry kindes of Iacincts, 621.d.e
which be the best, ib.
how goldsmiths set them in gold, ib.
Iacincts, called Chryseletri, and why, 621.f
a Citrin Iacinct or Chrysolith weighing 12 pound, 622.g
Iacincts named Leucocorys, ibid.
Iacincts which be called Capnie, and wherefore, ibid.
Iacincts how counterfeited, and by what meanes detected, ibid.
Iacincts called Melichrysi, and the reason why, ibid.
Ialyus and his dogs some, a famous picture of Proteogenes his doing, 542.b
K. Demetrius respecting it, forbore to burne the citie of Rhodes, 542.m
Iannes a great Magician, 373.d
Ianthina Festus, what kinde of cloth, 85.d
Iannus his image of brass at Rome, 494.g. the god of rime and ages according as his pourtraiture importeth, ibid.
Iasione, what hearbe, 99.d. the description, 130.b. the vertues, 130.i
Iasser, a gem, or pretious stone, 619.e. of a greenish colour, ib. common to many countries, 619.f
that of Ind. Cyprus, and Persia, ibid.
the Persian Iasser why it is called Acriznfa, ibid.
the Iasser of the Cassian hills, ibid.
Iasser about the river Thermodon, is blew as azur, ibid.
Iasser in Phrygia purple, ibid.
Iasser in Cappadocia Pontus, and Chalcedon, ib. 320.g
sundry kindes of Iasser different in goodnesse, 620.g.h
Iasser Terebinthizus, ib. what be the faults and blemishes of the Iasser, 620.h. how it is falsified, ibid.
the Iasser which resembles the Emeraud, most set by in the East parts, 620.i
Iasser, when it is called Grammatias, when Polygrammot, ib. written of Magicians as touching the Iasser stone, ib.
Iasser Onyel-apuncta, 620.k. the Iasser Capnius, ibid.
the biggnesse of the true Iasser, ib.
the whole visage of Nero pourtraied in one Iasser stone, ib.
Iatralpicie, what course of Physicke, 344.g
Iauandise in a fauer, when it is a deadly signe, 261.e. why Iauandise in a fauer, when it is a kings disease, 136.m
it is called Regius Morbus, or a kings disease, 136.m
for

of Plinies Naturall History:

for the Iauandise, appropriat remedies, 37.d.f.43.b.44.g
47.b.e. 49.f.52.g.53.c.54.b.55.c.59.b.61.f.64.m
71.c.73.c.75.c.104.i.l.106.g.110.k.124.l.125.e
127.c.128.k.134.k.136.m.142.l.143.a.144.i
172.g.175.b.c.181.a.b.f.189.a.192.i.k.l.193.b.d
238.m.245.a.261.e.f.262.g.272.k.277.b.279.e
286.l.335.d.370.l.389.c.d.419.c.422.i.443.a.f
628.g.
Iberis, an hearbe, 234.g. the vertues, ibid.
I C
Icades, what they be, 522.l
Icetiads, a Physician and writer, 309.e
Ichneumon, drineth away all venomous beasts with his strong and violent breath, 357.d
Ichthyocola, the name of a fish, 438.m
Ichthyocola, fish-glew, ibid. how it is made, ibid.
the best what makes it ought to haue, 439.a
the vertues both of the fish and the glew, 441.a
Iconice, what images, 490.g
Icterus, a pretious stone, 628.g. some kindes thereof, ibid.
Icterus, a bird, 389.d. good for the Iauandise if the patient doe but looke upon it, ibid.
Ictides, a kinde of Teazills, 355.e. supposed to be our ferrets, ibid.
Idulum, a gold mine, and the Act touching it, 469.c
I D
Idea, an hearbe, described, 284.b
Idai-dactyl, pretious stones in Candie, 628.g. their description, ibid.
I E
Icat or Iaiet. See Gagates.
I L
Ilacke passim is most grievous, 382.m
remedies against the Ilacke passion, 39.d.44.g.58.g
59.f.443.e.
Illecebra, what hearbe, 237.e. the description, ibid.
the medicinale vertues, ibid.
Ilusions fantasticall, of bings and goblins in the night drinking folke out of their wits, how to be driven away, 214.i.312.k.609.b.610.m.587.d.315.f.624.l.
I M
Images and visages of ancestors pourtraied in wax, 523.a
attending funeralls, ibid.
Image of Emperour in Rome, when it was granted to be engrauen and worne in iewels, 462.i
Image of the Ox in the beast-market at Rome, of Agennicke brasse, 488.i
Image of Iupiter in the temple of Iupiter Tonans, Delhacke brasse, 488.i
first brasse Image at Rome consecrated to Ceres, 489.e
Images of brass in old time vernished with Bitumen, 489.e
who were at first honoured with statues of brass, 489.f
an æt of Messala, touching the intermingling and confusion of Images of diuerse houses, 523.c
Images compleat for whom at first they were made, 489.f
Images of writers set up in libraries, 523.e
Images to be erected in priuat houses, from whence it came first, 490.b
Images in long robes, ibid.
Images naked, ibid. came first from the Greekes, ibid.k
Images in sundry habits, 496.k
Imageus of great name and cunning reckoned up, 497.a.b

Imageus sorted together, according to the workes wherein they excelled and delighted, 503.e
See more in Statues.
Imagerie in Cley, who inuented, 552.g. See Potterie.
Impendia, what it signifieth, 462.g
Impia, an hearbe, why so called, 205.e. the description and vertues, ibid.
Impostumes behind the eares called Parotides, with what medicines to be cured, 36.b.51.b.62.m.64.l.72.m
73.d.76.b.119.d.121.d.128.i.143.e.144.i.167.d
168.b.l.179.a.208.g.238.g.282.b.301.f.320.b.326.b
371.a.312.l.437.d.439.f.441.f.
Impostumes breeding how to be driven backe and disconfed, 49.a.103.e.120.k.138.i.141.e.150.g.158.g.161.f
167.d.179.f.181.c.182.b.l.184.g.185.c.188.l.205.d
274.g.278.c.286.l.556.l.560.b.
Impostumes about the midriffe, and in the bowels or precordiall parts, how to be cured, 39.e.75.d.123.d.154.g
186.e.381.b.c.
Impostumes betwene the eye corner and the nose, how to be healed, 174.i
Impostumes hard, how to be mollified, 141.a.162.b
Impostumes painefull, how to be eased, 141.d.162.b
Impostumes tending to suppuration, how to be ripened, broken, and drawne, 47.e.49.a.54.l.65.c.70.k.103.f
158.l.166.l.171.a.184.l.198.i.205.a.318.k.233.b
262.i.k.264.i.286.l.337.b.356.i.108.k.119.d
123.c.134.i.138.i.167.d.179.a.192.k.195.d
233.d.262.i.k.274.g.283.b.289.e.290.i.265.a
510.i.
for all Impostumes or swellings in generall, fit remedies, 194.m.197.b.201.a.245.a.379.c.e.423.f.
See more in Tumors and Inflammations.
the Imprecation or exorcisme in a prescript forme of the velle Hall Nun, Taccia, 295.a. See Exorcisme.
I N
Incarnatine medicines, 50.m.119.d.121.d.134.k.140.i
159.f.167.f.183.b.c.265.b.272.g.285.d.303.a.319.b
320.l.475.a.485.b.529.f.
Incoltilia, brasse vessell so artificiallly tinned, as that it seemeth silver plate, 517.f. whose inuention, ibid.
Indica, a pretious stone, 628.g. why so called, ibid. the description thereof, ibid.
Indico, a rich painters colour, 528.i. why so called, 531.a
Indico, a kinde of azure or blew, 485.a. the price thereof, ibid.
Indico the Painters colour, what it is, 531.b
the artificiall Indico is Florey, 531.b
how the good Indico may be sophisticated, 531.b
how the deceit is found, ibid.
the worth of Indico, ibid. and the use in Physicke, 531.c
Indish pepper. See Piperitū.
Infants how to be kept from suddaine frights, 341.c.449.e
from starting and shrieking in their sleepe, 340.c
from being forward, 351.d
Infants troubled with the wens or paines in the eares, how to be eased, 398.k.449.e
bleach or breaking out of Infants, how to be helped, 449.f
Infant sticking in the birch how it may be borne, 395.d
Infants red-gumb, how to be healed, 559.a
Infants sucking, how to be eased of the grinding and wringing in the bellie, 397.d
Infants

The Table to the second Tome

Infant, how it shall be borne with eyes and brows blacke,
397.d. the heat of the head in babes called *Siriasis*, how
to be allayed, 397.e. 449.f
Infants forsooke or bewitched, how to be helped, 398.i
how to cause *Infants* puke that which is offensive in the sto-
macke, 398.k
Infant dead in the wombe, how to be expelled or fished a-
way, 58.g. 76.b. 106.g. 107.f. 125.d. 135.e. 142.k
157.e. 163.g. 180.h. 193.d. 266.l.m. 267.a.c.d. 273.f
339.e. 340.i. 350.g. 448.l.
Infants mouths sore with the cankers, how to be helped,
341.b. d. their gumbes sore, how to be eased, 341.b
Infants marrow and braines found by some to be medica-
ble, 293.d
Infection by water and aire, how to be corrected, 134.k
against *Inflammations*, proper remedies discussie, 39.f
77.f. 105.a. 111.f. 120.k. 143.f. 146.b. 161.a. 168.l
185.e. 233.d. 262.i. 289.e. 313.b.c. 320.b. 531.c.
Inflammations aposthumar, how to be cured, 133.f. 289.c
See more in *Impostumes*.
Inflammation of the pinnicles containing the braines, how
to be cured, 76.k
Inguinaria, 256.b. called by some *Argemone*,
ibid.
Take of the *Cattle* sile, 450.k. the strange operation there-
of, ibid.
writing *Lake* taketh the perfection by gum *Arabique*, 530.l
Imula, an herbe, described, 18.i. the manner of dressing it,
and the use thereof, ibid. how to be planted, 18.k
how to goe *Insensible*, 315.c
Inundation of waters how to be staid, 316.b
Invocation upon the gods, thought to be effectual, 294.l

I O
S. Tolens wort. See *Coris* and *Hypericon*.
Joints shrunke, how to be mollified and drawne out, 78.b
126.i.
Joints bruised and hurt by crush or rap, how to be cured,
394.k
for *Joints* pained or in ach, and otherwise diseased, comfort-
able medicines, 48.m. 73.a. 77.b. 128.g. 146.b. 174.l
189.e. 207.e. 258.k.l. 262.l. 423.f. 432.l. 443.a
445.a.c. 557.e. See more in *Gout*.
Jollas, a Physician, 67.e. 506.m
Jon, a pretious stone, why so called, 628.b
Josapes, a magician, 373.d
Jovetunum, what, 518.b
Jphicrates, an excellent imageur and grauer, 501.b. his
workmanship, ibid.
Jphis a painter, well thought for his workmanship, 549.f

I R
Irene, a woman, excellent in painting with the pencil, 551.a
Ireos, *Iris*, or *Floure-delis*, the vertues thereof in *Physicke*,
105.b. See more in *Floure-delis*.
Irimum, what oile, and where it is best, 88.g
Irio, an herbe, 144.b. the description and medicinable pro-
perties that it hath, ibid.
Iris, a pretious stone, 623.b. why it is called the root of cry-
stall, 623.b. whereupon it tooke the name *Iris*, ibid. the
properties that it hath, 623.c. which is the best, ibid.
Iris, another stone, ibid. good against the bite of the *Techneu-
mon*, ibid.

I S
Isatis, an herbe, 445.c. what *Plinie* taketh it for, ibid.

Ischamon, what herbe, 233.f. why so called, 224.g. the
wonderfull power thereof in staunching blood, ibid.
Ischias, what herbe, 123.a
Isidorus, a famous imageur, and his workes, 502.i
Ismenius, a vaine and gaudie minstrell, given to weare ma-
ny gems and pretious stones, 601.b
by his example, *Musicians* were knowne by wearing of
such iewels, ibid.
Isodomus, what kinde of worke in masonrie,
593.f
Isoetes, what herbe, 237.c
Ispyrion, an herbe, 284.g. the description, ibid.
Issues in the skin how to be made, 168.i
Issue of blood out of the head or braine, how to be staid,
473.c.
Issue of blood gushing out of any part, how to be staid,
263.c. 287.e. 341.b. 352.l. 393.b. 407.f. 424.b. 473.c
509.e. 510.k. 589.a. 590.i.
out of a wound, how to be stopped, 424.i. 557.c. 559.a.
See *Bleeding*, and *Nose-bleeding*.

I T
Italie, the goodliest country in the World, 632.k
the commendation thereof in all respects, 632.k.l
Italie furnished with herbes of powerfull operation, 210.k
Italie full of gold mines and other,
469.e
an act forbidding to breake any ground for mines in *Ita-
lie*, ibid.
Itch, and itching pimples, how to be killed, 49.c. 60.l. 64.k
73.d.e. 105.a. 143.c.f. 144.l. 148.i. 149.a. 155.f
173.c. 174.g. 180.k. 232.m. 277.d. 306.i. 307.b
316.m. 317.d. 320.b. 337.a. 353.a. 367.b. 395.a
413.b. 419.b. 422.l. 437.d. 446.m. 557.d. 558.k
559.a.
Itch occasioned by iauundise, how repressed, 419.c
422.i.

I V
Iua *Moscata*, an herbe. See *Chamapity*.
K. Inb wrote the historie of *Abia*, 427.c
Inbarbe. See *Sengreene* and *Hauslecke*.
Judges of Rome, who properly were called, 459.d. 460.g
chamber of *Judges* instituted at Rome, 459.f. See *Decurion*.
Inell catkett, 602.g
Ivie, the vertues and discommodities that it hath, 189.d
killed with a touch of a menstruous woman, 308.m
Iulides, what fishes, 441.l
Iulius Rufus died of a carbuncle, 241.d
Iuniper tree, what vertues it yeeldeth in *Physicke*, 186.b
Iuoric *Mineral*, 410.g
Iupiters garden about *Athens*, 415.b
Iupiter *Ammon*, 428.k
Iupiter *Labradius*, 495.f
Iupiter *Laurarius*, 475.c
Iupiters image at Rome was usually painted with vermil-
lion against high daies, 475.c
the first thing eniured by the *Censors*, to paint his vi-
sage with vermillion, 475.d
Iupiter *Tonans* his image at Rome, wrought by *Leocras*,
502.k.
Iupiter and *Ianoes* temple at Rome, misfatched in the pi-
ctures and images that beautifie the places, and by what
occasion, 570.k
Iupiters image of cley in the *Capitoli*, 553.a
therefore it was usually painted with vermillion, 553.a
Iupiters

of Plinies Naturall History.

Iupiters gem, a pretious stone, 628.g
I X
Ixias, the viscus gum and venomous, how it is mortified,
56.f. where it is engendered, 123.f. why so called, 124.g
Ixius, the herbe *Chamaelon*, 123.f
Ixine, what herbe, 601.b

K I
K *Ibed* hells how to be cured, 47.b. 122.g. 128.i. 134.k
139.b. 141.f. 143.c. 159.c. 165.b. 167.e. 194.m
258.m. 274.k. 319.c. 334.k. 386.i. 413.b. 419.d
437.d. 445.b. 475.b. 559.b.c.
for *Kidnies* pained and diseased, *propria* remedies, 37.b
43.b. 47.c. 57.d. 66.k. 119.d. 120.b. 124.l. 125.c
127.c. 130.g. 141.f. 150.l. 157.e. 171.e. 330.b. 422.k
556.l.
Kidnies obstructed, what medicines doe open and cleanse,
167.c. 444.b. 529.b.
Kidnies exulcerat, how to be healed, 171.d
Kilpes. See *Reike* or *Scawred*.
Kine and *Oxen* how to be preferred healthfull, 400.g
Kings entill swelling and hard by what medicines to be cu-
red, 40.b. 44.g. 50.m. 52.g. 56.b. 58.l. 62.m. 65.a
72.g. 73.b. 75.a. 105.c. 106.l. 111.f. 119.d
120.k. 122.k.l. 127.c. 128.i. 139.d. 138.k. 139.a
141.e. 142.g. 143.c. 144.g. 164.b. 166.m. 168.b.k
169.a.b. 178.b. 179.a.b. 180.g. 183.d. 193.c
199.c. 205.l. 118.k. 139.b.c. 245.c. 250.b. 251.a
256.b. 265.b. 289.g. 282.b. 301.f. 309.d. 320.b
328.k. 370.l. 379.a.b. 431.e. 432.g. 433.a
587.f. 588.m. 595.d. Broken and running how healed,
378.m. 379.a.c. 437.d. 441.c.f. 442.g. 589.c.
Kernils swelling and painefull behind the ears, how to be
eased, 72.g. 122.g. 309.d
Kissing the right hand how it came to be taken up, 297.g
Knee gout or paine, how eased, 188.b. See *Gout*.

K N
Knights or *Gentlemen* at Rome, by what badges knowne
and distinguished from other degrees, 457.c. 459.c
Knight established at *bird* state in Rome, by the means of
Al. Cicero, 460.l.m
why all *Instruments* passe in the name of the *Senat*, *People*,
and *Knights* of Rome, 461.a
Knots in the joints and other parts of the bodie. See *No-
dosit*.
Hercules Knot, 305.c
Knot grasse, an herbe, 287.a. the description, ibid. the sun-
drie names, ib. why called *Calligonon*, *Polygonon*, and
Polygonaton, ibid. the vertues, ibid.
Knot grasse of four: kinds, ibid.
Knot grasse the wild, 287.c. the description, ibid. the ver-
tues, ibid.

L A
L *Abyriths*, most monstrous worke, 578.i
that of *Egypt* by whom built, 578.i
the reason why it was built, 578.k
Labyrith in Greece made by *Dadalus*, taken from the pat-
terne of that in *Egypt*, 578.k
Labyrith in Lemnos, 578.l
Labyrith in Italy, ibid.
Labyrith of *Egypt* and Lemnos described, 578.l.m
579.c. 599.d.
Labyrith in Italy built by *K. Porfena*, and therein he was
entombed, 579.d
Lactaria, an herbe. See *Tithymall*.
Lactoris, what herbe, 204.l. why so called, ibid.
Lactuca *Caprina*, what herbe, 251.e
Lactucini, who they were, and why so called, 12.l
Lacurrures, what kinde of Coleworts, 26.l
Lada the herbe whereof cometh *Labdanum*, 249.d
Labdanum, an herbe, 249.c. of two sorts, ibid. the vertues,
ibid.
Labdanum, a sweete gum or incise concrete, 249.c. whereof
it is made, ibid. which is the best, ibid. the vertues, ib.
Ladies and great *Gentlewomen*, what imageurs delighted
to cast and pourtray in brass, 503.c
our *Ladies* mantle, an herbe. See *Leontopodium*.
Ladus, an excellent grauer, 483.c. famous for pourtraying
battles, 483.f
Lagines, what herbe, 199.e
Lagopus, what herbe, 250.i
Lais, a woman Physician, and who wrote of *Physicke*, 309.c
a Lake wherein leaves or any thing else will sincke, 404.i
Lakes engendering salt, 414.m
Lala, a woman and paintresse, 551.a. See could handle
both the pencil and the enamelling iron, ibid. her peeces
of worke, ibid. b. her quick hand, ibid. shee excelled *Sop-
hytes* and *Dionysius*, painters of her time, ibid.
Lamps burning how they may represent the heads of horses
and asses, 327.a
Lampreys tooth venomous, 436.g. the remedie, ibid. hum-
selfe is the Physician, ibid.
Lamprey asbes medicinable, 440.l
Lampreys what shifts they make to get forth of a net, 427.e
they swallow booke and bait, they bite the line in twaine,
428.g. how they cut the same with their finnes, 428.b
how they may be soone killed, ibid.
Lampreys female onely, ibid. how they are conceived, and
how they engender, ibid. how they are taken, ibid.
Lanaria, an herbe, 204.l. what vertue it hath, ibid.
Lange, what beast, 606.b
Languishing and long diseases, how to be cured, 259.a
303.d. 391.c.
Languria, 606.b
Langurium, ibid.
Laocon with his children and serpents, a singular peece of
worke in marble, 569.e
Lap of the care diseased, how to be cured, 371.a
Lapathum *Cantherium*, what herbe, 73.b
Lappa *Boaria*, a kind of Burre, 258.l
Lappago what herbe, 258.g
Lapsana, a kinde of wilde Colewort, 27.c. the description
thereof and the vertues, 51.c
Larbason. See *Stimmi*.
Larch tree the medicinable vertues thereof, 181.c
Largestes and dole of money at Rome, when they began,
480.b.
Lartius *Licinius* forewarned by certaine fountaines, of his
destinie, 404.l
M m m 3
Lafer,

The Table to the second Tome

Lafer, a sweet liquor or drug, and the vertues thereof, 8.b
Lafer the liquor of *Laferpitium*, 8.b
the price thereof, *ib.* how rare it is, 8.i.k. sophisticated, 8.i
the manner of drawing *Lafer* out of the plant, 9.a
the ordering of the said liquor, 9.a.b
how the best is knowne, 9.d
Laferpitium, the plant that yeldeth *Lafer*, 8.b
destroyed by Publicans, *ibid.*
a plant of *Laferpitium* sent as a great noueltie, *ibid.*
what effects it worketh in cattell that feed vpon it, 8.i
how *Laferpitium* was engendred about *Cyrene*, 8.k
the nature of *Laferpitium*, *ibid.*
the description, *ib.*
what use of it, both for men and cattail, 8.l.m
the root thereof, 9.c
Laferpitium of *Perfia* and *Syria*, 9.c
a *Laske*, by what meanes medicinable it may be stopped, 9.c
41.c. 43.d. 47.e. 55.b. 67.c. 70.m. 73.e. 76.i. 77.e.
101.e. 102.l. 107.e. 120.k. 124.m. 127.b. 130.g.
131.f. 139.a.d. 140.l. 141.a.d. 147.b.f. 151.a.
156.g. 160.b. 163.b.c. 164.i.k. 165.b.f. 166.g.k.
169.d. 170.g. 171.b. 172.l. 174.i.k. 177.a. 179.f.
181.c. 184.g. 186.i. 187.c. 190.h.k. 195.c.d. 196.b.m.
199.d. 202.b. 206.l. 248.l. 249.b.c.e. 250.b.i. 255.a.
257.a. 263.d. 267.c. 272.l. 375.b.c. 280.k. 283.b.
284.b. 286.l. 290.b. 308.g. 318.l. 330.l.m. 331.a.c.d.e.f.
341.c. 353.c. 383.b. 443.e. 528.m.
Lassitude how to be eased, 289.e. 354.l.
See *Wearinesse*.
Latace, a magicall hearbe, 244.b. the operations thereof, *ib.*
Latine, what feftinall holydaies, 276.k.
Laton brasse, 486.m.
Lauer what hearbe, 250.g.
Laurea *Tullus* his *Decasticon* vpon *Cicerones Academia*,
and the fountaines there, 402.i.
Laurell tree, the nature thereof, and vertues medicinable,
173.a.
Laxative medicines, 140.b. 141.d. 161.b. 163.f. 167.c.
168.i. 180.l. 191.a. 192.i.k. 201.a. 218.i. 250.k.m.
251.a. 252.g. 272.g. 275.b. 287.c. 311.c. 442.l. 443.d.
See more in *Purgative*.
L E
Lea, what kinde of *Colewort*, 48.k.
Lead used in fining gold, 465.d.
silver-Lead, *Argentine*, 517.d.
two principall kindes of *Lead*, 516.l.
white *lead*, called *Plumbum Candidum* in *Latine*, 516.l.
in *Greece* *Cassiteron*, *ibid.* where it is found, *ibid.*
how fined, *ibid.*
Lead ore *Elutra*, 517.a. why so called, *ibid.*
blacke *Lead ore* common *Lead*, 517.a. two kindes thereof, *ib.*
white *Lead ore* *Tinglass* *Cassiteron*, in request of old, 577.b.
how it is knowne to be good and perfect, 518.g.
the use of blacke or common *Lead*, *ibid.*
Lead ore lyeth deepe in *Spaine* and *France*, 518.b. ebbe in
Brittaine, *ibid.* the principall kinde of *lead*, *ibid.*
Lead mines feve-let grow againe, 518.i. the reason thereof,
518.i. how a *lead* span will not melt over the fire, *ib.*
Lead in what cases medicinable, 518.l.m.
plate of *Lead* applied to backe and breast, *ibid.*
Lead, how to be prepared and washed for use in *Physicke*,
519.a.b.c.

the operation of *Lead* in *Physicke*, thus prepared, *ibid.*
Lead, how calcined into ashes, 519.d.e.
droffe of *Lead* medicinable, 519.e. which is best. *ibid.*
vapour of *Lead* in the furnace killeth dogs, 519.a.
Leana, an image of *Iphicrates* his making, 501.b.
the historie thereto belonging, *ibid.*
how a bodie ouer-fat may be made *Leane*, 184.m. 303.d.
318.l.
how a man should drinke to be *Leane*, and how to be corpu-
lent, 152.m.
Leaves of hearbes different, 20.g.
Leaves which be employed in coronets, 89.e. 90.g.
Q. Lecanius Bassus died of a carbuncle, 241.d.
Lectuce an hearbe of sundry kindes, 24.g.i.
Lectuce *Laconicon*, 24.b.
why *Lectuce* is called in *Latine* *Lectuca*, 24.k.
the nature of *Lectuce*, 24.k.
Augustus Caesar recovered from sicknesse by the meanes of
Lectuce, *ibid.*
Lectuce much used, *ibid.*
Lectuce *Caprina*, 24.l. 45.a. the properties thereof, 45.b.
Lectuce how to be dressed for the table, 25.b.
how *Lectuces* are to be replanted, 45.a.
Lectuce wild and the diuerse kindes thereof, 45.d.
the use of wild *Lectuce* medicinable, 46.g.
garden *Lectuces* their medicinable properties, 46.m.
their discommodities, 46.m.
Leech-craft belonging to kine and oxen who wrote of a-
mong the *Romanes*, 209.b.
Leekes, 21.a.
Leeks headed or bolled, 43.c. their medicinable properties,
ibid.
cut *Leeks* or vnset *leeks*, 21.a. used much by *Nero* the Em-
perour for to cleare his voice, 21.a. of two kindes, 21.d.
Mela killed by the iuice of *Leek*, 157.d.
Lees of wine the nature and properties thereof, 157.d.
Legs infirmities helped by the *Assian* stone quarries, and
hurt by mettall mines, 587.e.
to sit or stand crosse-legged, what effect it worketh, 305.a.
in what cases prohibited by law, *ibid.*
Lemonium, what herbe, 228.k. the g.m. and vertues therof,
ibid.
Lentine medicines, 111.c. See in *Mollitie*.
Lentiles the pulse, what medicinable properties they haue,
141.d. their discommodities, *ibid.* 142.g.
Lentiles wild, 142.i. their description and medicinable ver-
tues, *ibid.*
Lentiles of the marish or poole, 142.b. See *Duckes*-meat.
Lentiles or spots in the skin how to be seamed, 125.c. 130.l.
133.c. 138.l. 377.d. 441.d. 443.b.c. 450.i. See more
in *Freckles*, *Usage*, and *Face*.
Lentiske or *Mastike* tree, the vertues medicinable that it
affordeth, 184.g.
Leocras, a famous imageur, and his worker, 502.i.
Leon, a painter, 550.g.
Leontios, a pretious stone, 630.l.
Leontine, what hearbe, 232.l.
Leontiscus, a cunning painter, 549.f. his pictures, *ibid.*
550.g.
Leontius, a cunning imageur, and his works, 498.k.l.
Leontopetalon, an hearbe, 284.i. the description, *ibid.*
Leontopodium, what hearbe, 250.h.

of Plinies Naturall History:

the sundry names, description and vertues, *ibid.*
it causeth strange visions and illusions, 250.i.
Lepidotes, a pretious stone, 628.b.
Lepidus his stately house at *Rome*, 583.a.
Lepris in brasse what it is, 507.c.
Lepris or *leprosis* *Elephantiasis*, when it began first in *Italy*,
241.e. the description and manner thereof, *ibid.*
a maladie naturall and proper to the *Egyptians*, 242.g.
against the said *Lepris* sundry medicines, 44.k. 50.g. 51.a.
53.b. 58.b. 59.a. 65.c. 67.e. 73.d. 74.i. 103.b.
122.h. 124.l. 125.c. 131.a. 139.a. 144.g. 146.i.
149.c. 155.f. 157.e. 168.i. 179.d. 185.c. 191.g.
192.m. 207.c. 219.g. 300.i. 318.g. 328.g. 362.i.
370.k. 377.d. 394.k. 429.b. 422.l. 440.l. 441.l.
443.b. 556.f. 557.d. 559.b.
Lesbians, a pretious stone, why so called, 628.b.
Lethargie, what remedies for it, 39.c. 42.k. 55.b. 57.e.
74.b. 75.e. 76.b. 121.d. 160.l. 171.c. 181.a. 183.d.
187.f. 205.g. 260.l. 315.c. 336.g. 356.i. 390.b. 430.m.
446.b. 477.a. 573.c.
Lethe, a fountaine, 403.d. the water whereof causeth obli-
uion, *ibid.*
Leucacantha, an hearbe. See *Phalangites*.
Leucanthemon, See *Phalangites*.
Leucacantha, what kinde of Thistle, 123.a. the diuerse
names it hath, *ibid.*
Leucachates, a pretious stone, 623.e.
Leucacantha, what hearbe, 111.e.
Leucacanthemus, what hearbe, 125.d.
Leucacanthemum, what hearbe, *ibid.*
the vertues thereof, 109.a.
Leuce, an hearbe, 285.c. the description, *ibid.* why so called,
ibid. why named *Meselenicus*, *ibid.*
Leucocoron, an hearbe. See *Leontopodium*.
Leucocrystos, a pretious stone, 628.b.
Leucogai, medicinable springs, 403.b. their vertues,
ibid.
Leucograpius, 285.d.
Leucoperalos, a pretious stone, 628.b.
Leucoporon, what kinde of size, 466.b. how it is made,
529.c.
Leucophthalmus, a pretious stone, 628.b.
Leucostictos, a kinde of *Porphyrite* marble, 573.c. why so
called, *ibid.*
L I
Libadon, an hearbe. See *Centaure* the lesse.
Libanocris, a pretious stone, the description, 628.b.
Liberd bane, a venomous hearbe, 433.e. why so called, *ibid.*
Libards how they be cured after this bane, 270.k. See
Acontium.
Libratis, and *Libella* what it was in *Rome*, 462.k.
Libraries by whom deuised at *Rome*, 523.f.
Libripedes, who they were, 462.l.
Lichen, an hearbe. See *Limerwort*.
Lichen in *Plum* trees, what it is, and the vertues medici-
nable, 169.e.
Lichen in horse legs, what, 326.l.
Lichenes, a kinde of wild and foule tetter, 240.l. how it
began 240.l. why it is called *Montagral* *ibid.*
the manner of this foule disease, 240.m. who brought it
first to *Rome*, 241.a. what persons especially it annoy-
ed, *ibid.* by what meanes it was contagious. *ibid.*
the manner of curing it, *ibid.*
what remedies for *Lichenes*, 131.a. 289.d. 362.i. 440.g.
441.d. 470.k. See more in *Tettars*.
Lice or vermine of the bodie how to be killed, 399.b. See
Lousie disease.
Lice in the head, what killeth, 413.b. 422.g. 559.b.
Licinius Macer, a writer, 428.b.
Life in paine and sicknesse, is misery, 292.m.
Light in Pictures, 528.b.
Lightning with what ceremonies adored, 557.a.
Lightning resembleth the smell and flame of brimstone bur-
ning, *ibid.*
Lights and their infirmities how cured, 580.i. stuffed with
viscous steame and purulent matter, how to be dischar-
ged thereof and cleansed, 380.i. 443.a. 556.m. See
more in *Lungs*.
Ligusticum, an hearbe, 30.i. called *Panax*, *ibid.* the de-
scription, 290.b. why called *Smyrrbinum*, *ibid.*
of the garden *Lillie*, 81.k.
iuce of *Lillie* floures, 103.b.
oyle of *Lillies* called *Lirion*, *ibid.*
Lillies white commended and described, 84.k.l.
Lillie roots how to be set, *ibid.*
Lillies will come up strangely of their owne liquor, *ibid.*
Lillies red, described, 85.a. where the best are to be found, *ib.*
Lillies purple, *ibid.*
Lillies how they may be artificially coloured, *ibid.*
Lillie roots haue ennobled their floures, 103.a.
water-Lillie. See *Nemuphar*.
May-Lillie described, 239.b.
Lime for mortar, which is good, and which bad, 594.i.
Lime medicinable, 595.c.
quicke-Lime catcheth fire soonest by the meanes of water,
472.b.
Limann, a French hearbe, 285.b. the vertues, *ibid.*
Limonia, what hearbe, 130.m.
Limoniates, a pretious stone, 628.i.
Limonium, a kinde of Beet, 47.c. the description and ver-
tues thereof, *ibid.*
Limpins, shell fishes medicinable, 443.b.
Limyra, a fountaine, of founes remoouing, and thereby pre-
saging somewhat, 404.k.
Linden tree, the inner bark thereof soketh vp salt, 176.b.
the vertues that it hath otherwise, 185.d.
Line seed where it loneth to grow, 2.i.
Line much used, in what countries, 2.k.l.
Line how it is knowne to be ripe, when it is gathered, and
how dried, 4.g. how to be watered, dried againe, pun-
ned, and otherwise ordered, 4.b.i.
Line-quicke, what it is, and the use thereof, 4.l.m. where it
groweth, *ibid.*
Line seed serueth for meat, 4.b. it is medicinable, *ibid.*
Line called *Byssus*, and the lawne or ruffanie thereof, 5.b.
the price it beareth, *ibid.*
Linnen *Setabine*, 2.m. *Allian*, b. *Faustintin*, 3.a. *Retouine*, *ib.*
Linnen cloth how to be bleached, 69.b.
Linnen wearers where they were wont to worke, 2.l.
Linnen, where the best is made, 2.m.
Linnen cloth burnt to ashes how employed, 5.b.
Linnen died, as well as woollen, 5.c.
Linnen curtanes and veiles of diuerse colours, auerspread
the *Theatres* and *Forums* of *Rome*, 5.c.d.
Linnen

The Table to the second Tome

Linnenwhite esteemed best, 5f
 Lint of linnen cloth, for what purpose it is good, 5.b. See more in Flax.
 Lings. See Heath.
 Lingua, an hearbe the vertues thereof, 205.e
 Lingulaca, an hearbe, described, 232.i
 Linus, a medicinable river, 403.a
 Lions paw, an hearbe, 250.b. the sundry names that it hath, ibid.
 Lions bodie yeldeth medicines, 310.m. the greace, the teeth, haire, gail, and heart, 310.m. 311.a.b
 Lions danger how to be avoided, 359.b
 Lipara among the Greeke writers, lenitive and vntuous plasters, 174.l. 474.b how such be made, 520.i
 Liparis, a pretious stone, 628.i
 Lips chapped how to be cured, 327.f. 328.b. 352.l. 577.b
 See Chaps and Fissures.
 Lips scabbed, exulcerat, or otherwise disordered, how to be healed, 178.l. 377.b. 509.a
 Liquirice described, 120.g. the best Liquirice, ibid. the medicinal properties thereof, ibid.
 Liquirice iuice, 320.b. why called Ad-pson, ibid.
 Litharge of three sorts, 474.i. how it is made, ibid. k
 why called Spuma argenti, the froth of silver, ib. what it is, and how it differeth from droffe, ibid.
 Litharge, how to be prepared, 474.l.m. 475.a
 the medicinal vertues of Litharge prepared, ibid.
 Lithospermum, an hearbe. See Greimile.
 Lithostrata, what pacements, 596.m. when they were denied, 597.a
 Liver obstructed or stopped how to be opened, 1673.e. 189.e
 329.d. 443.d.
 Liver pained how to be eased, 380.m. 442.k
 Liver hard and swelled, how to be mollified, 142.l. 189.e
 for the Liver feeble or any way disordered, comfortable medicines, 373.b. 40.k. 441.d. 47.d. 573.d. 59.d. 61.a. 62.g
 63.a.c. 693. 73.e. 763. 773. 1043.l. 1063.l. 1193.c
 120.b. 124.l. 1253.e. 1273. 1303.g. 1383. 1433.
 1473.a. 1503.l. 1633.b. 1713.f. 1733.b.d. 1813.a.b.d.f
 1833.l. 1853.a. 1913.e. 1933.a. 2073.d. 238.m. 2473.b.c
 2483.g. 254.g. 2773.b. 2783.l. 2813.e. 3013.e. 3593.c
 5903.b.
 in the Livers of Swine little stones medicinal, 332.k
 Liverwort the hearbe why it is called Lichen, 244.m. the sundry kindes and description, 245.a. the vertues, ibid.
 Living creatures be most medicinal, 292.b. 313.l
 Linus Drusus, how much place he had, 481.b
 Live, what it is, 599.c
 Lixivius Cimis or the ashes, ibid. the medicinal use thereof, ibid. what use fenceers and sword-plaies make of it, ibid.
 Lizards male, how they be knowne from the female, 398.b
 L O
 Loadstone, 515.a. where it is to be found, ibid. b. it is not the right rocke Magnus, ibid.
 the wonderfull nature of the Loadstone, 586.l. why called Magnes, ibid. how it was first found, ibid. five kindes thereof, ibid. m
 Loadstone male and female, 587.a. the different sorts thereof, ibid.
 Ethiopian Loadstone best, ibid. b. where it is found, and how knowne, ibid. c
 the medicinal properties of all Loadstones, 515.a. 587.b

Loathing of meat how helped, 147.b. 248.b. 259.e. 277.a
 See Appetite.
 Loines or small of the backe in paine, how to be eased, 37.e
 39.d. 40.k. 41.f. 42.b. 43.a. 533.b. 543.b. 59.b. 66.k. 663.a
 108.k. 1103. 1193.d. 123.a. 134.m. 1433.f. 1443. 1493.b
 182.g. 190.k. 280.g. 304.l. 3053.e. 312.k. 313.b. 350.b
 381.f. 382.g. 5563.l. 5573.e.
 white Lome troublesome to pioners working in gold mines, 467.e.f.
 Lomentum, a kinde of painters colour in powder, 471.b
 483.m. the price, ibid.
 Lonchitis, what hearbe, 233.a. the description, ibid.
 it differeth from Xiphion and Phasganion, ibid.
 Longan, a gar. See Fundament.
 Long-wort, an hearbe, 230.i. two kinds thereof, ibid. k. male and female, ibid.
 Looking glasse. See Mirroirs.
 Loose-ferise, an hearbe. See Lysimachia.
 Lotometra, a kinde of Lotos, 125.f. the description, ibid. bole-
 some bread made thereof in Egypt, ibid.
 Lotos, a name given to sundry plants, 177.a
 Lotos, an hearbe, 99.c. the qualitie that the seed hath, ibid.
 Lotos, an herbe, and not a tree, 125.e. how it is pruned, ibid.
 the vertues of this hearbe, ibid.
 Lotus, which is called the Greeke beane, 177.a. the ver-
 tues, ibid.
 Loue-cub, why it is called Lignuicium, 304.i. it is also named Panax, ibid.
 to win love and favour what medicines availe, 47.f. 108.b
 311.a. See Grace.
 Louse potions condemned by Plinie, 213.d
 Louie or Lawcoll, an hearb, 174.g. the medicinal ver-
 tues it hath, ibid. the description, 198.k
 the berries or seed what vertues they have, ibid.
 for the Louie disease remedies appropriat, 361.39.b. 44.b
 743.i. 149.a. 162.k. 173.c. 179.d. 189.b.c. 190.b. 1232.m
 264.b. 324.g. 41367.a.b. See Lice.
 Sylva Diicta, or died of the Louie disease, 264.b
 Louers and lanterns ouer temples of potters worke in clay, 552.b
 who deuised, L V
 Lucipores, what they were, 459.a
 Lucius Lucullus ouerruled by the straight hand of his Phy-
 sician in diet, 304.i
 Lucullus rooke his death by a loue cup, 213.e
 M. Ludius Elotas, a painter who beautified the temple of
 Iuno at Ardea with pictures, 544.l. verses testifying
 the same, ibid. m
 Ludius, another painter, who practised to paint upon walls
 varietie of works, 545.a. his grace and dexteritie there-
 in, ibid.
 Lunaticke or out of fright wits how to be cured, 107.e. 149.e
 218.f. 219.d. 3353.c. 381.b. 387.d. 402.l. See
 Phranticke.
 Lungs enflamed, how to be helped, 64.i. 135.d. 275.e
 Lungs exulcerat and purulent how to be mundified and
 healed, 37.b. 433.e. 57.d. 61.a. 179.c. 308.b. 329.b
 Lungs stuffed with fleame, how to be discharged and sear-
 red, 433.e. 59.e. 74.g. 1063.l. 167.d
 Lungs diseased, medicines in general, 77.e. 200.l. 247.c. d
 Lungs or lights in beasts diseased, how cured, 247.e. 275.e.
 See lights.
 Lung-

of Plinies Naturall History

Longwort, an hearbe. See Longwort.
 Lupines wild, 143.d. their properties in Physicke, ibid.
 how Lupines may be made sweet, ibid.
 Lupus, a kinde of Phalangium or venomous spider, 360.b
 Luse, a citiz, neare which, a well of a wonderfull nature,
 403.d.
 Lust how prouoked or repressed. See Venus.
 Lustre or glasse in painting what it is, 518.b
 Lutca, a kinde of Borax, 471.a
 Lutca, an hearbe, ibid.
 L Y
 Lychatis, what stone, 83.e. why called Fluminea, 110.l
 Lychmites, the white marble of Paros, why so called, 365.b
 Lychmites, a pretious stone, and a kinde of Rubie Balais,
 why so called, 617.e
 the Indian Lychmites best, ibid. f. the second sort is named
 Lons, and wherefore, ibid.
 Lychmitis, an hearbe, and why so called, 230.k
 Lycism, an excellent Imageur in brasse, and his worke,
 502.k
 Lycium, what it is, and whereof made, 197.b
 the best Lycium, ibid. c. how it is knowne, ibid. b
 how Lycium is made, ibid. b
 Lycopthalmus, a pretious stone, 630.i
 Lycopsis, an hearbe, 284.k. the description and vertues, ib.
 Lycos, a kinde of spider, 381.e. See Lupus.
 Lycus, a Physician, 71.b
 Lydius Lapis. See Touchstone.
 Lydius Lapis, what stone, where to be found, and how
 used, 574.b
 Lying in bed upon the backe for what it is good, 303.e
 upon the bellie for what, ibid. upon the sides by tumes
 for what, ibid.
 Lyncurium, what it is, according to Democritus, 606.b
 whether it be engendered of the Onces urine, 607.c. d
 Plinie thinketh also to be fables that is written of Lyncuri-
 um, ibid.
 Lyon, what hearbe, 231.b
 Lysias, a famous Imageur and grauer in stone, 569.d. his
 excellent workmanship, ibid.
 Lysimache, priestesse to Minerva 64 yeares, 501.e
 represented in brasse by Demetrius the Imageur, ibid.
 Lysimachia the hearbe, 221.f. it beareth the name of king
 Lysimachus, ib. the description, 222.g. the operation, ib.
 it may be called Lysimachia, i. Loose-ferise, in another
 respect, ibid. b
 Lysippus, an excellent Imageur, 494.k. he made in his time
 610 molten or cast images, of exquisite workmanship
 all, 494.k. how it appeared that he wrought so many,
 ibid. l. he learned the art of no teacher, but attained un-
 to it by himselfe, ibid. m. his rare skill and admirable
 workmanship, 497.a. b. c
 Lysistratus of Sicione drew a mans visage to the life in Ala-
 baster or fine Plaster, 522.b. and so proceeded to the per-
 sonage of the whole bodie, ibid.

M A

Macedonum, a kinde of Diamant, 610.b
 Mads or Earthwormes, great heulers, 393.f. 394.g
 Mads. See Wormes,

Mad lake, why so called, 404.g
 Madir, an hearbe, 9.d. e. the description, ib. where it growes,
 ibid. the sundry names it hath, 192.i. how it is employed
 by diers, ibid. by curriers, ibid. by Physicians, ibid.
 against Madnesse, what remedies, 72.k. 140.b. 219.d
 Madon, what plant, 149.c. See Nensaph.
 C. Manius his statue erected upon a columne at Rome,
 491.a.
 Magicke, foolish, vaine, deceitfull, and yet professed with
 credit, and long time maintained, 371.e. why it hath so
 long continued, ibid.
 Magicke proceeded first from Physicke, ibid. clided by reli-
 gion, 372.g. intermeddled with Astrologie and Mathe-
 matickes, ibid.
 Magicke studied by the greatest Philosophers, 373.b. flou-
 rished about the Peloponnesiacke warre, 373.d. professed
 by Democritus, ibid.
 Magicke of old time practised in Italie, ibid.
 in France, ibid. f
 Magicke Ciprian, ibid. d
 Magicke in Brittain, 374.g
 Magicke of diuerse kindes, and which they be, ibid. b
 Magicke sacrifices and ceremonious rites cannot be exerci-
 sed by them that haue red pimples in their faces, 328.i
 Magicall hearbes of sundry sorts described, with their
 strange properties, 202.k. & c.
 Magicians first discredited Physicke hearbes, 244.g
 Magicians condemned by Pliny, and their vanities derided,
 213.e. 359.e. f. 244.b. i. 357.c.
 Monarchs in the East, much ruled by Magicke, 372.b. it
 first began in the East part, ibid.
 Magides, what dishes they were, 482.b
 Magiscia, what cups, 484.g
 Magnet stone growing in one entire rocke, differeth from the
 Loadstone, 515.b
 S. Magnus euill. See Leprie.
 Magydarus, what it is, 9.b
 Maiden-haire, an hearbe, 126.m. why called Adiantum, ib.
 why Polytricon and Callitricon, 127.a
 Maiden-haire of two kindes, ibid.
 Maiden-haire Trichomanes described, 290.l. m
 Maidens-breasts by what meanes they shall not grow, 236.i
 281.c. 339.e.
 Maioran Marierom, an hearbe, described, 91.e. how it
 commeth up, ibid. it is called Sampsuchus and Amara-
 cas. 109.a. the oyle thereof, Amaracium or Sampsu-
 chinum, ibid. b. the vertues, ibid.
 Makarels pickle or sauce called Garum medicinal, 442.b
 Maladies incident to mankind, innumerable, 213.b
 Maladies going away at the first game of Venus, 301.e
 which be most generous and deadly, ibid.
 Maladies of maidens ending at the sight of their first fleurs,
 301.e.
 Maladies of the bodie winterfall how to be remedied, 259.a
 Malandres in horses, how cured, 338.l
 Malache, what kinde of Mallow, 71.e
 Malas, the first grauer in stone of any name, 565.c
 Malicorium, the rind of a Pomgranate, 164.l. why so cal-
 led, ibid.
 Malobathrum, what vertues it hath, 1623.
 Malope, what Mallow, 71.e
 Malloes grow to be trees, 13.d. e
 Mallowes

The Table to the second Tome

Malloes highly commended, 71.d. they enrich a good ground, 71.e. hurtfull to the stomack,	72.b	Marble serpentine, ibid. the medicinable vertues thereof, ib.	
garden Malloes of two kinds,	71.d	Marble of Memphis, with the medicinable properties, 573.c	
Malum Erraticum, what beare,	255.d	Marble Coraliticum, where it is found and the nature of it,	
Marish Malloes, Althea,	71.e	574.d.	
the wonderfull power of malloes to incite lust,	72.i	Marble Alabandicum, why so called, ibid. it will melt, and drinking glasses be made thereof,	
Malloes leaf killeth scorpions,	71.e	Marble Thebaicke, 574.i. the vertues that it hath, ibid.	
Malloes not to be used with women with child, after the counsell of Olympi. is the midwife,	72.b	Marble Syenites, why so called, 574.k. it is named also Pyrrhopacilos, ibid. it served for long Obelisks,	
Malthea, what it is, and how to be tempered for pargetting,	559.d.	Marble gray, or Sinadian Marble,	522.i
Marcuria his sumptuous building,	571.e.f	Marble doth line and grow in the quarry,	586.i
Mar med. cinable to man,	293.b	Marchefin, or Marquesti stone. See Cadmia and Pyrites.	
Maris blond to drinke is abominable,	ibid.c	Marcon of Smyrna, a writer of hearbes,	300.k
Maris head found in digging the foundation of the Capitoll temple at Rome,	295.d	Marciopores, what they were	459.a
Marcius ordained his owne statue to be made in that manner as he was delivered to his enemies,	490.k	C. Marius Censorinus how rich he died,	479.e.f
Maridoragoras, the hearbe,	235.b	Q. Marius Tremellius his statue in a gowne, for what desert,	491.e
the sundry kinds of Mandragoras, and their description, ib.		Marigolds and their stoures compared with Violets,	85.e
the white Mandrage, what names it hath, ibid.		Mariscon, a kinde of ribb,	106.k
with what ceremonies the root of Mandrage is digged up,	235.c.	C. Marius dranke ordinarily out of a wooden tankard, after the example of Bacchus,	482.l
how the liquor or iuice is drawne out of Mandrage, ibid.		Markes remaining after the canterie or searing-iron, how to be taken away,	377.f
the use of Mandrage, before the cutting or cauterizing of a member,	ibid.e	Marmaridina a Magician,	372.i
Mange in dogs, and other beasts, how to be killed,	113.c	Marrow of what vertue it is,	320.m
124.b. 128. 144.b. 149.e. 159.d. 162.l. 183.f. 268.f. 338. 377.d. 441.c.		what Marrow is best, ib. how to be ordered and prepared, ib.	
Manicon, why Diuile is so called,	112.k	Marjans, people resisting all poyson,	95.a.b
Manilius, a renowned Aethemetician and Astronomer,		Marsians descended from Circe, 210.l. they cure the sting of serpents by touching or sucking onely,	ibid.
576.b. his deuise vpon the Obeliske or Gnomon in Mars field at Rome,	ibid.	Martia, a water serving Rome, 408.g. most cold and wholesome, ibid. from whence it cometh, ibid. who conueied it to Rome, and maintained it, ibid. how it tooke that name,	585.d
Maple tree the medicinable vertues that it hath,	185.a	Q. Martius Rex his wonderfull workes, performed during his Pretourship,	585.d
a Mares head pitched vpon a garden pale, keepeth away cankerwormes,	32.l	Mascellin, mettall of gold, silver, and brasse,	487.b.c
against the enormitie of hewing marble out of the rocke,	562.k.l.m.	Maspetum, what it is,	8.l
no liues in Rome to repress that excesse,	563.b.d.	Massaris, 146.g. a wilde Vine, ibid. 147.c. how employed,	ibid.
grauers, cutters, and caruers in Marble, who were the first,	564.b.	Massurius, a writer of Histories,	320.k
grauing in Marble as ancient as the reckoning of yeares by Olympiades,	ibid.l	Thistle-Mastike, what it is,	98.i
Marble of Paros white,	565.b	Mastike, the gum of the Lentiske tree, and the medicinable vertues,	182.l. 184.b
Marble spotted, 571.b. of sundry sorts,	ibid.	Murice pained and vexed with throwes, what remedies for it,	39.f. 53.b. 66.k. 106.i.m. 121.f. 186.k. 198.m. 207.d. 266. 267.b.f. 268.g. 279.a. 283.a. 308.g. 339.c. 340.g.
Marble pillars and columns in building of temples, why at first used, ibid. m. of Chios built therewith the walls of their citie, 571.c. the scoff of M. Cicero vnto them by that occasion,	571.d	Matrice puffed up, swelled, and hard, how to be assuaged and mollified,	72.l. 103.c. 111.e.f. 162.k. 180.l. 183.d. 186.g. 339.f. 340.g. 352.i. 396.b. 397.a.
Marble slit into thin plates, whose inuention,	571.d	Matrice enflamed and impostumat how to be cured,	55.e
who seeld the walls of his house first with Marble at Rome, 571.e. who built his house first at Rome vpon Marble pillars,	ibid.f	59.d. 71.b. 267.d. 303.a. 350.g. 351.a.	
Marble pillars,	571.d	Matrice fire and exulcerat, how to be healed,	140.i. 159.d
K. Mausolus first garnished his pallace with marble of Proconnesus,	571.d	161.e. 175.a. 267.a. 340.g. 342.m.	
Marble Luculian, whereupon it tooke the name, 572.g. it is blacke, ibid. where it groweth,	ibid.	Matrice ouermooist and slipperie, how to be helped,	340.l
Marble stone slit and sawed after what manner,	ibid.b	Murice drawne in and contracted, how to be remedied,	303.a.
Marble of sundrie kinds,	573.a	Matrice perueried, fallen downe, or displaced, how to be reduced and settled againe,	303.a. 339.b. 340.b. 396.b
Marble of Lacedaemon esteemed best,	ibid.	557.f. 591.b. See more in Mother.	
Marble Argustum and Tiberinum, why so called,	573.b	Matrice obstructed and vncleane, how to be opened, clenfed,	and
how they differ,	ibid.		

of Plinies Naturall History:

and mundified, 43.b.c. 55.d. 57.c. 62. 77.b. 101.d.
168.i. 180.l. 268.g. 340.k. 104.i. 121.f. 133.e. 158.b
175.b. 182.g. 187.d. 192.l. 266.l. 267.c.d. 271.d.
for the infirmities of the Matrice in general, comfortable
medicines, 102.b.k. 108.k. 109.b.c. 111.d. 119.d
121.e. 154.g. 173.a. 175.a. 179.f. 181.b. 183.c. 193.b
196.g. 207.c. 267.f. 271.d. 313.c. 318.b. 339.d. 340.l.
395.e. 448.i. 449.b. 589.b.
Maturating medicines, 76.k. 103.c. 139.a. 183.d. 303.a
556.l.
Mutiaci, what springs, 404.b
Maur hills corruptly called Mowl hills, what they be, 397.d
Mausoleum, the renowned tombe erected by queene Arrie-
mistis for king Mausolus her husband, 568.i. the descrip-
tion thereof, and the workemen, ibid.
M E
Mead or honied water. See Hydromell.
one Meale a day no good diet, 304.b
Mechapanes, a painter full of curious workmanship, 548.m
Mecenas Misset held his peace voluntarily for three years
space, 305.d
Mecenas signed with the print of a Frog, 601.f
Mecon, a kinde of wild Poppie, 69.c
Meconis a Lettuce, why so called, 24.i
M conites, a pretious stone, 628.i
Meconium, what it is, 68.e
reme the againt Meconium, 160.k
M conium Aphrodes, an hearbe, 257.f
Meconium, what kinde of medicine to make a woman fruit-
full, 303.b
Medea, a pretious stone, 628.i. by whom found, ibid.
Meda, queene of Colchia, a famous witch, 210.k
Medion, an hearbe, with the description, 285.e
Medius, a writer in Physicke, 39.e
M deters, the fruit, and their medicinable vertues, 171.b
M gabizus, what he is, 548.i
Meges a Chirurgian, 439.c
Mel-frugum. See Panicks.
Melampyllum, what hearbe, 129.c
Melampodium, what hearbe, and of whom it tooke that
name, 217.b
Melampasum, 278.g
Melampus, a famous Diuiner or Prophet, 217.a
Melancholie the disease, what remedies are appropiat for
it, 45.i. 50.l. 72.k. 107.e. 140.b. 157.a. 219.d. 283.a
304.l. 316.g. 318.g. 336.b.
Melancholie the humour, what medicines doe purge, 111.f
188.g. 235.f. 412.m.
Melandrum, what hearbe, 248.g
Melanthemon, what hearbe, 125.d
M lus a fontaine, the water whereof maketh sheepe white,
403.c.
M las, a cutter in marble, of great antiquitie, 564.k
Melichloras, a pretious stone, 630.m
M lichtra, a pretious stone, ibid.
M lile, an hearbe, 90.g. why called Sertula-Campna.
the description thereof, ibid.
the vertues medicinable, 106.l
Melinum, a Painters white colour, 528.k. why so called
529.d. how it is gotten, ibid. the use in Physicke and the
price, ibid.
Melutai, what dogs, 380.b

Melites, a pretious stone, 630.m
Meluties, a kinde of Hotted wine, 136.m. the properties it
hath, 137.a
Meluties, a stone, why so called, 589.b. the vertues that it
hath, ibid.
Melons their meat and medicinable properties 37.c
Mel-pepones, what they be, 14.k
Melothron, what plant, 149.c
Membranes wounded, how to be kept from inflammation,
423.e.
Memitha. See Glaucion.
Memmaria, a pretious stone, 628.i
M morie helped by some water, 403.d
M nephites. See Marble.
Men, whose bodies are thought medicinable from top to toe,
298.m.
Men who had some especiall part of the bodie medicinable
to others, 299.f
Menachmus, a famous Imagur and his workes, 502.k
Menaïs, what beare, and the vertues thereof, 202.k
Menauius, a Poet commended for good literature, 372.m
Menestratus, an excellent Imagin in stone, 568.m
Menianthes, an hearbe, and a kinde of Trefoile, 107.b
Montagra, a kinde of foule Tettar, 240.l. how the name
came up first, ibid. the remedies thereof, 44.k. See more
in Lichenes.
Montanomon, 606.i
Mentor, a famous grauer, 483.d
he wrote of Imagerie, 502.k
Mercurie, the hearbe, found by Mercurius,
the diuerse names, kinds, and vertues described, ibid.
215.e
Merizals. See Galt.
Meremaides in Homer were witches, and their songs en-
chantments, 372.k
Meroetes, a pretious stone, 628.k
M rois, what hearbe, and the medicinable vertue thereof,
203.e.
M: solencas. See Lence.
M: solencas, when a gem is so called, 628.l
ibid.
M: somelus when a gem is so called, ibid.
M: sulinus died by setting an Horse-leech to his knee, 467.c
Mettals, what melting they require, 472.b
Mettall mines and furnaces, kill flies and gnats, 519.b
See Mines.
Metoposcapi, who they be, 539.b
M: trodorus an excellent Philosopher and Painter, 548.i
he wrote in Physicke, 70.i. he painted hearbes in their
colours, 210.g
M: rum, an hearbe, 77.a. two kinds thereof, ibid.
Mezis and small pocks how to be cured, 58.i. 157.d. 167.a
174.i.k. 189.e. 337.a. 338.l. 418.m. 421.e. 422.b
437.d.

M I
Mice how to be kept from gnawing bookes and writings,
277.e. contemptible creatures, yet medicinable, 355.d
betweene Mice and Planets, what sympathie, ibid.
the liuer of what vertue, ibid.
Miction, an Herbarist and writer, 78.g
K. Midas rich in gold, 464.b
Midriffe and precordiall parts swelled and diseased, how to
be cured, 52.k. 55.c. 64.i. 66.i. 67.d. 102.l. 104.i
107.e. 113.c. 119.d. 138.l. 163.b. 202.g. 207.e
239.a.

The Table to the second Tome

239.a.247.c.290.k. how to be cleared, 160.m
Migraine, what kinde of headach and how to be eased, 233.c.418.m.
Milefium Halcioneum, 441.d
Miliaria, what weed, and the vertues thereof, 144.f
Militaris, an hearbe, why so called, 204.m
Milke in women nourishes breasts, how to be encreased, 39.f
49.c. 65.c. 77.c. 109.c. 130.i. 131.c. 149.c. 187.c.
193.c. 199.f. 268.i. 282.b.k. 288.i. 291.c. 340.g.b
396.g. 397.b. 448.b.l.
Milke by what meanes it is dried up or diminished, 55.c
158.g. 236.i. 279.a.
Milke, what will cruddle, 166.k. 168.i. how it shall not
cruddle in the stomacke, 137.b. being cruddled, what
dissolue, 168.l
Milke cruddled in womens breasts, how it may be dissol-
ued, 131.d
Milke cailed in the stomacke, how to be dissolued, 134.l
mothers Milke best for all suckings, 317.b
Milke of nonrues with child, hurtfull to sucking babes, ib.
Milke of nonrues most nutritive, 317.c
Milke of goats next to womans milke, ibid. it agreeth well
with the stomacke, and the reason why, ibid.
Iupiter suckled with Goats milke, as Poets fable, and why,
317.c.
Conflida cured by Goats milke, 184.i
Goats Milke for what diseases good, 318.i
Milke of Camels sweetest next to womans milke, 317.c
Asse milke for what good, 318.b
Milke of Asse most medicinable and effectuall, 317.c
323.a. excellent to beautifie and make white the skin,
327.c. it soone loseth the vertue, and therefore must be
drunke new, 323.b
what Milke is easiest of digestion,
Milke of Kine aromaticall and medicinable, 323.b. it
keepe the bodie solluble, ibid. it is a counterposon,
322.c.
Milke of Kine Physicke to the Arcadians, 225.f
best Milke how to be chosen, 317.d
what Milke is thinnest and fullest of whey, and when, ibid.
a diet drinke made of Cow-Milke in Arcadia, for what in-
firmities, 317.d
for what disease Cow Milke is appropriat, 318.b
womans Milke or breast milke medicinable, 307.c. sweetest
of all other, ibid. how to be chosen, ibid. allowed in an
ague, ibid.
Milke of a woman that bare a man-child better than of
another, 307.d. especially if she bare two boy twins, ib.
Milke of a woman bearing a maiden child, for what it is
good, 308.g
Milke of Kine feeding upon Physicke hearbes, is likewise
medicinable, as it appeared by two examples, 226.g
Milke boiled, is flatter than raw milke, 317.d
an artificiall milke called Schiston, ibid. for what disea-
ses it is medicinable, 318.g
Milke of Ewes for what good, ibid.
Sowes Milke, for what sicknesse it is good, ibid.k
Milke how to be clisterized for the bloudie flux, how for the
collicke and other diseases, 318.g.b
a clyster of Milke much commended for the gripes of the
belly occasioned by some strange purgation, 318.g
Milke in what cases hurtfull, without good caution, ibid.k

the vertues medicinable of Milke in generall, 317.d
Millefolie, an hearbe. See Yarrow,
Milleped, what worme, and the venomous nature thereof,
37.d. the hurt coming thereby how to be cured, 37.d.
42.b.i. 78.g.
Millet the medicinable vertues that it hath, 139.c
Miltites, a kinde of bloudstone, 590.b
Miltos, See Vermilion. 113.c
Mina, or Mina, what weight, 113.c
Minerva, an Image in brasse wrought by Demetrius, 501.e
ibid.
why it was called Musica,
Minerva Cautiana. another Image of Minerva in brasse
wrought by Euphranor, and why so called, 502.g
Minerva of Athens an Idoll of gold and yuorie, 26 cubits
high, wrought by Phidias, 566.g. the curious work-
manship of Phidias about the shield of that Minerva,
ibid.g.h.
Minerva Rhamnusia wrought by Phidias, 597.d
Mines, minerals, and metalls, the riches of the world, 453.c.
Mines of silver and gold why called in Greeke Metallu,
472.l.
Minium. See Vermillion.
Mints, the hearbe, when and where to be set or sowne, 29.d
what Mint will propagat and grow any way, howsoever it
be set, ibid.e
Mints called in Greeke sometime Myntha, but now Hedy-
osmos, ibid.
Mints, a principall hearbe in a country house, ibid.
garden Mints, the singular vertues thereof, 59.c. it keepe the
milke from cruddling in the stomacke, ibid.
water-Mint, where and how it cometh to grow, 31.d
wild Mint named Mentastrum, described, with the ver-
tues, 58.m
Mint masters at Rome chosen with great regard, 347.c
P. Minutius his statue erected upon a Columne at Rome,
491.b.
Mirrors of tinne were before any of silver, 517.d
Mirrors of silver plate, 478.i. the reason why they represent
an image, ibid.
Mirrors of sundry makings, and shewing strange shapes,
478.k. ibid.l
which were the best Mirrors, ibid.
silver Mirrors, the invention of Praxiteles, ibid.
Mist king of the bodie how to be cured, 259.c. 279.c. See
Consumption.
Mison. See Misy.
Misteto of the Oke is best, 178.b. how glew or birdlime is
made thereof, ibid.
Misy or Mison, a kind of excrescence out of the ground, 7.c
Misy, a minerall. 510.b. how engendered, ibid. the medicina-
ble vertues, ibid. the best, ib. how knowne, ibid. how cal-
cined and prepared, ibid.i
K. Mithridates his praise, 209.c. he was beneficiall to man-
kind, ibid. his ordinary taking of posions and prefer-
uaries daily, ibid. he devised counterposions, ibid.
Mithridatium the famous composition, was his devise, ibid.
he spake readily two and twentie languages, 209.c
he studied Physicke, ibid. his cabinet stored with secrets
in Physicke, 209.f
Mithridation, an hearbe found by K. Mithridates, 220.b
the description, ibid.
Mithridates his opinion as touching Amber. 606.m
Mi-

of Plinies Naturall Historie.

Mitigatives of paine, 70.i. 76.k. 106.b. 423.d. 471.e
511.c.
Mitrax, a pretious stone, 628.k
Mitrax, a King of Egypt, first caused Obeliskes to be rea-
red and upon what occasion, 574.l
M N
Mason, a King, who much admired painted tables, 543.d
Mneme, a fontaine helping memorie, 403.d
Mnesias his opinion as touching Amber, 606.l
Mnesicles a Physitian, 68.k
Mnesibius wrote a booke of Chaplets or guirlands, 82.b
M O
Moles in face or skin how to be taken away, 140.m. 143.b
328.b.
Moleonium, what hearb, 248.g
Mollitie medicines, 70.i. 76.k. 103.d. 135.d. 141.a. 178.b
180.i. 184.g. 185.b. 186.i. 187.c. 192.m. 206.i. 303.a
310.b. 320.m. 423.d. 475.m. 556.l. 560.g
591.d.
Molingo, what hearb, and why so called, 258.b
Molocites, a pretious stone, why so called, 619.c. commen-
ded for sealing faire and cleane, ibid. the vertues that it
hath, ibid.
Molon, an hearbe, 247.a. the description, ibid.
Moly, an hearb, 112.l. 213.f. by whom so called, ib.
who found it out, 214.g. described by Homer and the
Greeke Herbarists diversly, ibid.
Molybdem Metallica, what it is, 520.g. the description,
nature, and degrees in goodnesse, ibid. how the best is
knowne, ib. the use in Physicke, ibid.
Molybdana, 474.l. See Galena.
Molybdia, a kind of Litharge, 474.i. it cometh from the
lead that is melted with silver, ibid.
Mormonica, an hearb. See Geranium.
Mony rained cause of counterposse, 463.d
Mony who counterfeited and how, 479.a
Mony plentifull when it was at Rome, 480.i
how silver Mony brought in by Livius Drusus at Rome,
463.c.
Monochromata, what pictures, 525.b
what painters were excellent therein, 533.a
Monthly tearmes or Fleures of women, by what medicines
procured, 39.e. 46.l. 47.g. 48.f. 54.b. 57.f. 60.k. 61.b
62.i. 72.b. 74.b. 75.b. 78.g. 103.b. 104.g. 104.l
106.k. 107.f. 109.a. 110.b. 111.b. 119.d. 122.b
127.f. 128.f. 130.i. 131.c. 134.g. 140.k. 142.i. 142.j.
144.g. 150.g. 153.f. 163.c. 166.l. 168.i. 171.d
173.a. 174.g. 177.b. 179.b. 180.l. 185.e. 187.c
189.e. 191.c. 192.k. 193.b. 198.i. 199.b. 200.k
201.i. 202.g. 206.f. 207.g. 215.g. 266.i. 267.a. 267.g.
h.c.d.e. 268.g. 274.g. 277.d. 278.l. 286.l. 287.f.
289.f. 290.b. 291.b. 303.a. 306.b. 308.g. 313.a
314.k. 339.b. 362.i. 396.k. 430.m. 443.i. 448.k.
455.f. the immoderat flux thereof by what meanes
to be stayed, 101.e. 104.l. 119.d. 142.i. 158.k. 163.b
164.g. 165.e. 170.k. 178.g. 185.e. 188.l. 189.a. 192.f.
194.i. 195.a. 197.d. 266.k. 267.b. 282.m. 283.b
284.b. 285.d. 339.d. 340.b. 341.a. 350.g. 352.f. 354.m
353.c. 366.l. 448.k. 510.k. 516.b. 528.m.
Monthly sicknesse in women, cause of madnesse first in
dogs, 310.g
Monthly flux of women in what cases wonderful, 310.k. 1.m

how venomous it is, 309.ab.c. the remedies against it,
309.d. 433.a. the same also is medicinable, 309.d
Moon calues, moles, and false Conceptions, how to be dissol-
ued and scattered, 397.d
Moones, an hearbe. See Enphthalmos.
Mordicaine medicines, 286.l. 418.k. 421.e. 485.b
508.l.
Morell, an hearb. See Night-shade.
Morimalis in the leg, how to be healed, 128.g. 140.g
142.m. 149.d. 167.e. 174.m. 250.g. 370.l. 447.f.
Morion, an Indian pretious stone, 628.k. the blacks is
Pramnion, the red, Alexandrinum, if like the Sardoine, ibid.
Cyprum, ibid.
Morion, what hearb, 112.l. See Mandragora.
Morion, the pretious stone where it is found, and the use
thereof, 628.k
Morpheus in the face and skin otherwise, how to be scoured
and rid away, 58.b. 62.l. 74.i. 103.d. 144.g. 193.b
219.d. 217.a. 290.l. 377.c. 394.l.m. 395.a. 403.a
422.b. 440.m. 557.a.
Morters for Apothecaries, Cooks, and painters, of what
stone best, 591.f
Morter for building, which is best, 594.k
Morter that will make a joint in stoneworke to hold water,
594.b.
Morticini, what they be, 134.k
Mortification in members how to be restored, 259.f
Moses the Hebrew supposed by Plinie to be a notable Ma-
gician, 373.a
Mosse called Spagnos, Spacos, or Bryon, what vertues it
hath, 181.b
Mosse of the water for what it is good, 414.b
Moth how to be kept from cloths and garments, 67.b. 277.e
Mother rising in women, with danger of suffocation, by
what meanes it is remedied, 40.k. 62.b. 67.a.d. 74.b
104.l.m. 106.k. 121.d. 157.a. 180.g. 181.a. 218.l
266.l. 267.b. 283.a. 303.a. 307.b. 314.l. 397.a
430.m. 448.k. 557.f. 589.c.
the Mother fallen or displaced, how to be settled, 57.c. 60.k
61.b. 103.c. 121.c. 125.c. 156.g. 161.f. 164.g. 174.k
178.g. 180.b. 181.d. 183.d. 195.a. 267.a.d. 303.a
339.b. 340.i. 341.b. 350.g. See more in Matrice.
Mountaines wherefore made, 562.i.k
Mountaines undermined and clouen for gold, 467.c
breach of Mountaines washed with a currant brought by
mans hand, and the manner thereof, 468.b.i
Mountaine digged through by Claudius Caesar, a most
chargeable and trifolome piece of worke, 586.b
Mouffe-eare, an hearb. See Myosotis.
Month sores, ulcers, and cankers, how to be cured, 42.g. 51.a
54.b. 60.i. 63.a. 65.c. 70.g. 72.g. 101.d. 102.i. 120.b.k
141.d. 149.a. 156.c. 161.f. 165.e. 173.c
175.a. 177.f. 185.e. 187.c. 189.c. 190.k
195.c. 196.g. 197.a. 239.e.f. 252.l. 257.a
272.i. 286.k. 287.g. 313.a. 328.k. 351.a. 418.k
419.b. 432.i. 507.f. 509.a. 510.b. 511.b. 558.j.
609.b.
Month sores rheumaticke, how to be helped, 512.b
Month scalded how to be cooled, 377.b
for all the infirmities of the month in generall, appropriate
medicines, 112.l. 135.d. 157.b. 164.m. 170.b. 195.a
196.g. 432.i.
M n n

The Table to the second Tome

M V

Mu, a fillable that nources used to pronounce as a counter-
charme to defend their babes. 300.l
Mud gathered in medicinable fountaines, how to be used.
412.i.
Mugwort the heerbe. See Artemisia.
Mulberie tree, the strange properties thereof, 170.b. the
virtues of iuice and fruit, ibid. g. h
the composition of Mulberries, called Parchrestas Stomatice
170.b. how it is made, ibid.
other compositions of Mulberries, 170.k. l
Mullen, an herbe. See Longwort.
Mules, how they shall not kicke or winse. 400.b
Mules house of a strange nature, 399.e
Mulations, Gnats lining but one day,
Mullet a fish, how crafty he is to avoid the danger of the
booke, 428.g
Mulle, what it is, 136.m
Multipede, Many foot wormes. See Cheeslips, their ven-
omous qualities how remedied, 139.e. 155.f. 323.d
L. Mummus, why surnamed Achaicus, 526.m
P. Munatius committed for wearing upon his head the co-
ronet of Marfyas. 81.d
Mundificatiue medicins, 158.i. 160.g. 182.l. 193.b. 197.d
319.b. c. 418.l. 471.e. 485.b. 509.a. 511.e. 516.b. k
520.m. 591.d.
Murall chaplets, 115.e
Muralium, 111.e
Murre occasioned by a rheume, how to be discussed, 289.e
377.f. See Rheumes.
Muria, the pickle, whereof it is made, 418.k. the nature and
virtues thereof, ibid.
Muscada, Muske dung, 364.i
Mushromes, their wonderfull nature, and how they grow,
7.b. c. sundry kinds of them, 7.c
in biting a Mushrome, there was found a silver Roman De-
narius, 7.d
a discourse of Mushromes, 7.f
observations touching Mushromes, 7.f. 8.g
Mushromes distinguished by the trees under which they
grow, 133.a
Mushromes dangerous meat, and yet medicinable, ibid. b
they be engendred in raine, ibid. e
Mushromes a perillous food, 133.g
Tiberius Clandius poisoned by the meanes of Mushromes,
ib. their venomous qualities how they may be known, ib.
the manner of Mushromes engendering, 132.b. when
they may be gathered and eaten safely. ibid. how to be
dressed, that they may be eaten with securitie, 133.d
Annas Severus, with others, poisoned by Mushromes, ib. a
remedies against venomous Mushromes, 39.d. 43.b. 49.e
51.a. 56.l. 74.g. 103.a. 113.c. 121.c. 133.d. e. 135.d
153.b. 157.e. 166.i. 174.b. l. 232.g. 277.c. 363.e
422.i. 433.e.
Musica, an Image of Minerva, 501.e
Muscles, 443.b
Must or new wine of sundry kinds, 150.k. l. their properties,
ib. their discommodities, ibid.
Mustard seed, what vertue it hath, 74.g
Mutianus, a writer, 404.b
Mutianus imagined that he preserved himselfe from bite-
red cies, by wearing a lue sic about him, 298.k

M Y

Myaces, shelt-fishes medicinable, 442.l. their nature descri-
bed, ib. m. the broth of these fishes hath many good ope-
rations, 443.a. the only inconvenience that commeth by
them, ibid. of two sorts, Mituli, Mysce, 443.b. their
description, ibid.
Mysce be medicinable, ibid.
Myagros, an herbe, 286.g. the description and vertues, ib.
Mycon, a famous painter, 533.f. two of the name, the elder
and younger, 534.g
Myiodes, the god or Idoll of flies, 364.k
Mylacos, a kind of Beele, 370.k. why so called, ibid. it is
medicinable, ibid.
Myositis, Muske-eare, an herbe, why so called, 273.a
Myosoton, an hearbe, 272.m
Myrmecias, a pretious stone, 628.k
Myrmecides, a famous cutter in stone, and his fine work-
manship, 570.l
Myrmecion what manner of spider, 360.k
Myrmecites, a pretious stone, 630.i
Myro, an excellent Imagur, 481.i. be used altogether. E-
ginetick brass, ib. his pieces of work, wherein he excelled,
498.b. he wrought also in marble, 569.a. his works, ib.
Myrrha or Myrrhus, an herbe, 202.g. the sundry names it
bath and the description, ib. the medicinable vertues, ib.
Myrrhites, a pretious stone, 628.k
Myrsineum a kind of Fennell, 77.c
Myrsinites, a pretious stone, 628.l
Myrth, how it may be procured. 108.b. 180.l. 223.d
259.e. 297.d.
Myridanum, the medicinable vertues it hath, 175.a
Myrtle berries and their properties in Physicke, 174.k
Myrtle oile, and what medicinable vertues it hath, 161.c
174.k
Myrtle wine, with the vertues medicinable, ibid.
Myrtopetalon, what herbe, 287.b
Mys, a passing fine grauer, 483.e. his workmanship, ibid.
Myxon, a fish, 439.d. the same that Banchus, ibid

N A

Nails growing crooked, rough, and ragged, how to be
rectified or remooened with ease, 56.k. 71.c. 73.c
76.k. 158.g. 177.f. 178.i. 183.d. 266.b. 320.g. 334.m
393.a. 422.g. 448.b. 559.b.
Naites troubled with the excrecence, turning up, & loose-
nesse of the fleshe about the roots, how to be cured, 101.d
120.b. 147.c. 165.a. 167.e. 174.l. 177.f. 194.m. 329.a
393.a. 418.m. 516.b. 521.b. 559.b.
Naites loose how to be fastened, 148.l
Naites brused how to be healed, 328.m
griued with whitewasles about their roots, how eased,
266.b. 301.a. 350.b. troubled with fissures or chaps a-
bout the roots, how to be remedied, 120.b
Names fortuunt and significant, available in presenting a
sacrifice, 297.a
Napi Persicum, what herbe, 291.b
Narcissinum, what oyle, and the vertues thereof, 103.d
Narcissites, a pretious stone, 630.k
Narcissus, the Daffodill, why so called, 103.c
a Narcotie medicine, 573.c
Nard

of Plinies Natural History:

Nard Celticke described. 88.g. the vertues thereof in
Physicke, 104.k
Nard rusticke is not Bacca, but rather Asara-Bacca, 85.f
Nasturtium, why Crestes be so called, 29.a
Ad-Nationes, what place it is at Rome, 570.g
Natrix, an hearbe, 286.b. the vertues thereof, ibid.
Naturall heat how encreased, 290.k
Naturall parts of women. See Priuities.
Navall chaplets, 115.e
Nancerus, an Imagur, and his workmanship, 502.k
Nanewes of fine sundrie kinds, 16.b. their degrees in good-
nesse, ibid. i
of Nanewes two kinds serve in Physicke, 38.m
Nauew bastard described, 200.g
the medicinable vertues thereof, 202.g
against Navigation an insectiue of Pliny, 1.f
Nauils in children bearing out how to be cured, 69.f
254.b.
Nausicaa, the name of a ship, called likewise Hemionis,
542.b.
Naxian stones what they are, 572.m
NE
Neales, a famous painter, how he painted the froth falling
from an horse mouth, 542.l. mittie he was and full of
invention, 550.g. his deuise in expressing the river Ni-
lus, ibid.
Nebrites, a pretious stone, why so called, 628.l
Necromantie of Homer painted by Nicias, 548.g
he would not sell it to K. Attalus for sixtie talents, ibid.
Nellabis, a sumptuous King of Egypt, 575.c. the Obelisk
which he caused to be hewed, ibid.
Necke swelled in the nape or pole, how to be eased, 158.i
245.e.
Necke sinewes so pulled that the head is plucked backe-
ward, how to be helped, 378.l. 392.m. 422.m. 431.a
442.g.
cricket in the nape of the Necke how to be eased, 300.i
305.b. 328.l. 552.k. 578.l. 442.g.
Necke impostumes how to be cured, 397.c
Necke sinewes cut in twaine, how to be healed, 557.e
Necke-wort. See Ellebore.
Nemesi, a Greeke goddess, innuocated for diuerting of
witchcraft, 297.b. she hath no name in Latine, ibid. her
statue in Rome, ibid.
Nenuphar the hearbe, 222.b. why called in Greeke Nym-
pheia, ibid. Named also Heracleon by what occasion,
222.i. why it is called Rhopalos, ibid. the description,
222.i.
two kinds of Nenuphar, ibid.
Nep, an hearbe, the vertues thereof, 61.b
Nepentes giuen to ladie Helena by Polydamna the Kings
wife of Egypt, 210.l
Nepentes, a noble drink, 108.i. the vertue thereof, 210.l. m
Nerion what hearbe, 191.f
Nero, a monster, and poison to the world, 132.g. he stud-
ied Magicke, 374.i. he could not attaine vnto it, ibid. l
his deuise to haue exceeding cold water, 407.e
his Colosse or Image 110 foot high, 496.b
why he wore a plate of lead to his breast, 518.m
his golden pallace, 583.b
his wastfull superfluities, 603.b. his wastfullnesse
in Cassidians vessel, 603.e. f

upon enill tidings he broke two Crystall cups, 605.e. he
made a sonnet in praise of Peppan his mines hair, 609.a
he was wont to behold the sword-plaiers and fencers
fight in a faire Emeraud, 611.d
Nernes in ach and paine how to be eased, 105.c. 135.d
149.e. 141.d. 146.l. 179.a. 183.f. 258.k. 262.l
303.a. 313.b. 337.d. 349.e. 392.l. 419.c. 422.k
624.k.
Nernes wounded and cut in twaine, how to be healed, 45.b
103.b. 216.k. 262.m. 279.e. 288.k. 337.d. 394.g. b
446.m.
Nernes sprunke, plucked, and drawne together, how to be
helped, 52.b. 126.i. 146.l. 262.l. 337.d. 392.l. See
more in Crampe.
Nernes sprained how to be cured, 337.d
Nernes enflamed, what remedie, 138.k
for Nernes and nervous parts, comfortable medicines, 66.i
72.l. 73.e. 108.k. 109.b. 128.g. 134.g. 154.g. 157.a
162.b. 187.a. 189.c. d. 226.l. 238.l. 262.l. 282.g
412.g. 443.i. a.
Net worke exceeding fine, 3.c
Nettles, 95.e. f. their stinging how to be cured, ibid.
Nettles and the seed wholsom and medicinable, 97.f. 121.c
cyle of Nettles, 121.c
dead Nettle, 78.g
Nettle Fulviana, whereupon itooke that name, 255.d
sea-Nettle, 255.d. medicinable, 444.g
Nevrada. See Poterion.
Nevras, what hearbe, 231.a
Nevris, what hearbe, 112.k
New yeares salutations with good words, 297.a
NI
Nicaarchus, a painter famous for his works, 550.g
Nicander, a writer of hearbes and simples, 78.b
Nicias his opinion of Amber, 606.k
Nicerates a cunning Imagur, and his workes, 1502.l
Niceratus, a writer, 443.f
Nicias a painter commended by Praxiteles, 548.g
the table that he made, and the inscription to it, 527.e
he painted women to the life excellently, 547.e. f
Nicias his workes, 548.g. he passed for making dogs effecti-
ally, ibid.
Nicomachus, a famous painter, 543.d. his peeces of worke,
ib. d. e. f. a readie workman, and quicke of hand, 543.e
in how small a time he painted the tombe of Telestes the
Poet, to performe his bargain to Aristides the tyrant, ib.
Nicomachus, a gay Minstrell, with his varietie of pretious
stones, 601.c
Nicophanes, a painter, 544.g. his manner was to renew
Old pictures, ibid. he assailed grauitie in his work-
manship, ibid.
Nigella, an hearbe, how employed, 30.l. it is called Gith,
Melambium, and Melasperiu, 65.b. the vertues of it, ib.
iuice of Nigella how it is drawne, 65.c. the danger thereof,
ibid. the seed how it is used, 65.i
Night-mare, a disease, how it is driuen away, 283.a
Night spirits and Goblins how to be scared away, 315.i
377.a. See Illusions.
Night shade an hearbe, 286.b. the description, ibid.
Nigina, an hearbe, 286.b. Nigidius, a writer, 357.d
Nil. See Spodos.
Nilos, a pretious stone, 619.d. the description
and

The Table to the second Tome

and place where it is found, 619.e. why so called. *ibid.*
Nilus the river, how it was represented by *Nealces* the
 painter in a picture, 550.g
Nilus the river portrayed in *Barfolteo* marble, with six-
 teen children playing about it, 573.d
Nits breeding in the head how to be avoided, 365.b. 413.b
 422.g. 559.b. in the eye-lids, 557.a
Nitre, a discourse thereof, 420.b
Nitre artificial made of *Oke* wood burnt, *ibid.*
Nitrus water and fountains, *ibid.*
 a lake of *Nitre* naturall, with a spring of fresh water in the
 midst, *ibid.*
 what *Nitre* is best, 420.m
Nitre pits and boiling houses,
 rocks and mountaines of *Nitre*, *ibid.*
 stone-*Nitre*, and the use thereof, *ibid.*
 some of *Nitre*, when, and how to be made, 421.b
 how the best *Nitre* is chosen, *ibid.* how sophisticated, and
 by what means detected, 421.c
 where sal-*Nitre* is, nothing else will grow, *ibid.*
 in sal-*Nitre* more acrimonie than in salt, *ibid.*
Nitre preserveth from blindness, *ibid.*
 the vertues medicinable of salt-*Nitre*, and the pits
 how to be prepared and ordered for Physicke, 421.f
 sal-*Nitre* how it may be made stone hard, 422.m

N O

Nodia, what hearbe, 206.g. called also *Mularis*, *ibid.*
Nodosties in vermes how to be dissolved, 392.k
Nodosties of scar swab doth dissolve, 559.b
Nodosties in joints how to be mollified, 303.a.b
Nodosties in generall how to be resolved, 166.l. 180.g.m
Nome, what ulcers, 50.m. 393.f
Nome, the divisions and severall jurisdictions in *Egypt*,
 579.a
Nonacris, a fountain, faire to see to, and yet hurtfull,
 405.b
Nongentiat at *Rome*, what they were, 460.g
Nonius a Senator suffered proscription, rather than bee
 would part with an *Opall*, 614.h
Nose bleeding how to be stanch'd, 421.52.b. 57.d. 61.c.e
 64.d. 121.d.e. 122.b. 207.b. 224.g. 263.a.d. 287.a
 305.c. 320.g. 393.b.c. 447.b.d. 511.b
Nose what will set a bleeding, 207.b. 279.c
Nose bleeding diminisheth the swelled spleene,
 carnosities and excrecence of flesh within the *Nose* thrills
 how to be taken away, 507.f. 521.b
Nose ulcers called *Noli me Tangere*, what medicines doe
 cure, 50.k. 59.e. 66.g. 189.e. 195.c. 200.m. 238.g
 240.g. 251.b
 stinking sores and vermes within the *Nose* thrills, how to be
 remedied, 189.e
 all accidents in generall of the *Nose* thrills how to be healed,
 164.m. 165.a
 callosities and warts growing in the *Nose* thrills, what doth
 take away, 197.d
 pimples about the *Nose* and lips, what doth repress, 327.f
 328.g
Nose gates, who were wont for to make most of all other,
 80.i
Notia, a pretious stone. See *Ombria*.
 N V
Nucleus Ferri, what it is, 514.i.k. of diverse sorts. *ibid.*

See *Steele*.
 the greatest number in old time a hundre d thousand, 470.c
 Number odde, more effectuall than the even, 297.a
 criticall daies observed by Physicians, are of an odde Num-
 ber, *ibid.*
 Numbers ceremoniously observed by *Pythagoras*, 299.d
 Numidian red marble or *Porphyrite*, 522.i
 Nummedesse upon cold, how to be healed, 101.b. 105.c
 108.l
 Nummed members or asonied, how to be recovered, 300.l
Nus, a river, so called of the effect, 403.e
Nutritines, 136.l. 139.c. 151.e. 162.l. 167.c. 172.l. 256.l
 445.c

N Y

Nyctalopes, who they be, 325.b. how such are to be cured
 of their dim sight, 325.b. 368.g. 438.l
Nyctigretum, what hearbe, and the properties thereof, 91.e.f
 why it is called *Chenomychos*, 91.f. and why *Nycti-*
lops, 92.g
 the *Nymphes* poole, 405.a
Nymphæa, an hearbe. See *Nemphar*.
Nymphærena, a pretious stone, why so called, 628.l
Nymphodorus, a Physician, 506.l

O B

O Barati, who they be, 486.k
Obeliske in *Egypt*, what they were, and why conse-
 crated to the Sunne, 574.k
 who first erected *Obelisks*, *ibid.*
Obeliske of *K. Ramises*, shared by *K. Cambises*, when hee
 burnt all besides, 575.b
 an *Obeliske* eight cubits high, 575.c. how it was removed
 and conveyed from the quarry, *ibid.* c.d
Obelisks how they were transported from *Egypt* to
 Rome, 575.e
Obeliske in the grand cirque at *Rome*, how high, 576.d
Obeliske in *Mars* field, *ibid.*
 by what Kings of *Egypt* those two *Obelisks* were shewed,
 576.d
Obelisk in *Mars* field serveth for a *Gnomon* in a diall, *ib.*
Obeliske erected by *Nurecorem* in *Egypt*, a hundred cu-
 bits high, 576.k
Obeliske at *Rome* in the *Vaticane*, *ibid.*
Obelisks of *Emerands*, 613.a
 Oblivion caused by some water, 403.c
Obolus, what weight, 113.e
Obrizum, what gold, 465.d
Obsidiana, what kinde of glasse, 598.b
Obsidianus lapis, a stone, 598.h. why so called. *ibid.*
Obsidian stone, how employed, 598.i. where it is found, *ib.*
Obsidianus, a pretious stone, 629.a. where to be found, *ibid.*
Obsidian all coronet what it was, 116.b
 Obstructions in generall what doth open, 143.c. 443.e

O C

Ochre, 485.b. the vertues medicinable, *ibid.* See more in
Ochre.
Ochus, a river yielding salts, 414.m
Ocnos painted by *Socrates*, what it importeth, 549.a
Octavianus being embassadour, killed by *K. Antiochus*,
 492.g. honoured with a statue at *Rome*, *ibid.*
 Odi-

of Plinies Naturall History

. O D
Odinolyon, why the fish *Echeneis* is so called, 426.l
Odious how an enemy may be made to all the world, 314.g
 316.g
Odontitis, an hearbe, 286.i. the description, *ibid.*
 O E
Oenanthe, what floure, 146.g. why so called, 92.i. 110.g
 the medicinable vertues, 147.a. where the best is, *ibid.*
Oenias, a painter, famous for his picture *Syngenis*, 550.h
Oenophorus, an image of *Praxiteles* his making, and why so
 called, 500.l
Oenothera, what hearbe, 259.e
Oenotheris, a magicall hearbe of strange effects, 204.k
Oesophum, what it is, 308.g
Oesophum medicinable, 350.l. which is best, *ibid.* l.m. how
 to be ordered, *ibid.*

O I

Oile grasse Greene, called *Herbaceum*, 162.k. the vertues
 thereof, *ibid.*
Oile of *Henbane*, 162.i. the effects good and bad that it
 hath, *ibid.*
Oile of *Lupines* and the vertues thereof, *ibid.*
Oile of *Daffodils*, what vertue it hath, *ib.*
Oile of *radish*, what operation, it hath, *ib.*
Oile of *Sesama*, what are the effects thereof, *ibid.*
Oile of *Lillies*, what other names and medicinable proper-
 ties that it hath, *ibid.*
Oile *Scelticium*, the vertues of it, *ibid.*
Oile called *Eleomeli*, the medicinable effects thereof, 162.l
Oile willingly doth incorporat with time, 176.i. See
 more in *Oyle*.
Onions of sundry sorts, 20.g
Onions differ in colour, 20.i. in tast, *ibid.* how to be kept,
 20.l
Onion plots how to be ordered, *ib.* l.m
Onions their properties, 41.f
 the different opinions of Physicians as touching the na-
 ture and vertues of *Onions*, 42.i
Onions highly commended by *Asclepiades*, and condemned
 by moderne writers, *ib.*
Oinon *Ornithogale* described, 99.c
sea-Onion. See *Squilla*.
Egyptians sweare by *Onions*, 20.g
Oister Willow, the operation thereof, 187.a
Oister Siler, the vertues in Physicke, 189.b
Oisters and their commendations, 437.c.d. their vertues
 medicinable, *ibid.*
Oisters a foot square, 437.b
Oisters *Tridacna*, why so called, *ibid.*
Oisters medicinable, 436.i. a daintie meat, *ib.*
Oisters lose flesh waters, and therefore the coast, *ib.*
 few *Oisters* found in the deepe sea, 436.k
 a dewise to coole *Oisters*, 437.c
Oisters which be best, *ib.*
 why the best *Oisters* be named *Calliblephara*, 436.m
Oisters desire to change their water,
 thereby they feed fast, 437.a
 coast renowned for their *Oisters*, 437.a
 the best *Oisters* of *Cizychum*, and their description, *ib.* a.b

O K

Oke and *Oline* at war one with another, 176.g
Oke Apples their vertues in Physicke, 168.i

Oke of *Ierusalem* an hearbe. See *Botrys*.

O L

Olach, is a river detaching periurie, 404.k
Oleander what names it is knowne by, 191.f. the strange
 nature that it hath, 192.g. death to cattell counterpoi-
 son to man, *ib.*
Oleastris, what it is, 518.b
Olenus Calenus, a great Wisard of *Tuscane*, 295.e. his pra-
 ctise with the *Romane* Embassadours to divert the desira-
 nies and fortune from *Rome*, *ibid.*
Oline tree gum, 159.m
Oline leaves medicinable, 158.k
Olines white, their commendable vertues in Physicke
 159.a.
Olines blacke their properties, 159.b
Olines in pickle, their good and harme, *ibid.*
Olympias a woman paintresse, 551.b
Olympias of *Thebes*, an expert and sage midwife, partly also
 a Physician, 72.b. 339.b. shee forbiddeth women with
 child to use *Mallowes*, 72.b
Olympius the surname of *Pericles*, and why, 501.c
Olyra, the vertues medicinable thereof, 138.i

O M

Ombria, a pretious stone, 628.m. called likewise *Notia*, *ib.*
 how it cometh, *ib.* the vertues, *ibid.*
Omphacium. See *Wine* *Verinice*.
Omphilocarpus, what hearbe, 274.i

O N

Onces, of all foure-footed beasts, have the quickest eye-
 sight, 316.l. their body yieldeth medicines for mans
 body, *ib.* l.m. they hide their owne urine upon ennie to
 mankind, 317.a
Onobrychis the hearbe described, 202.b
Onochelis, or *Onochyles*, 125.b
Ononis, or *Aonis*, the herbe *Rest-harrow*, 98.l. the descrip-
 tion, *ib.* 273.e. the vertues medicinable, *ib.*
Onopordon, an hearbe, 286.k. why so called, *ibid.*
Onosma, an hearbe, 286.k. the description, *ibid.*
Onaris, an hearbe, 259.e. the description, *ib.* the vertues, *ib.*
 See *Oenothera*.
Onyches, female shell-fishes, 444.b
Onychites or *Onyx*, what stone, and where found, 573.e
 how it was employed, *ibid.*
Onyx a pretious stone, 615.e. the description and the sundry
 kinds, *ibid.*
Onyx of *India* and *Arabia*, 615.e.f
 the true *Onyx*, 616.g

O P

Opall a pretious stone, 614.g. naturally it is bred in *India*,
ib. how it doth participat with other gems, 614.b
 sundry kinds of the *Opall*, *ibid.*
Nonius prescribed for an *Opall*, 614.h
 the imperfections in the *Opall*, *ibid.* how falsified, *ib.*
 the small thereof, *ib.* why it is called *Paderos*, *ib.*
 which *Opall* is best, *ib.* l.m
Ophicardelos, a pretious stone, 629.a
Ophidian, a fish like a *Conger*, medicinable, 445.a
Ophilus a writer in Physicke, 300.k
Ophiogenes, a race of people, adverse in nature to serpents,
 298.m
Ophion, a beast, 399.d
Ophion, a wild beast found only in *Sardinia*, 322.g
 N n n 3
Ophi-

The Table to the second Tome

Ophiostaphylon, what plant, 149.c
 Opites, what Marble, 573.b
 Ophiusa, a Magickall beare, and the vertues thereof, 203.e
 it worketh illusions to us many as eat it, ibid.
 the remedie to prevent such effects, ibid.
 Opion, a writer in Physicke, 41.a. 130.g
 Opisthotonos, what disease, 328.m. the cure, ib. See Cramp.
 Opium, what it is, and how to be drawne, 67.e. 68.g
 Opium, if it be taken inwardly, how the mallice may be corrected, and the danger prevented, 64.l. 150.m
 153.b. 157.b. 160.k. 232.g. 19.f.
 the operations of Opium, 68.g
 Opium was the death of Licinius Cecinaes father, ibid.
 whether Opium may be used or no, a question argued among Physicians, 68.g
 Opuna, in what cases not to be used, ibid. n
 Opum, by what markes it is tried, whether it bee good or no, 68.i. k. how it is kept, 68.l
 Opocarpus, a vice venomous, 443.b. the remedie, ibid.
 Oppunax, Buccellum why so called, 274.k
 Oppone a vice, why so called, 197.f
 the vertues that it hath, ibid.
 Opuntia, an hearbe, and the properties thereof, 99.d
 O R
 Orach the herbe condemned by Pythagoras, Dionysius and Diocles, 71.a. it breedeth many diseases, ibid.
 Orbis, the Loop-fish, 428.i. his description and nature, ib.
 Orca, a pretious stone of a pleasant colour, 628.l
 Orchant, a herbe, described, 98.m. the use of the root, ib.
 124.k. the description and vertues that the root hath, ib.
 Orchis, an hearbe, 256.m. two kinds thereof, ibid. the description, ibid.
 Oreon, an hearbe, 287.c. the description, ibid.
 Orefelinum, what it is, and the effects thereof, ib. d.
 Organum, an hearbe, 64.b. many kinds thereof, ibid.
 Organum Heracleoticum, 63.c. of three sorts, 64.i. 214.l
 Organum Pratum, 64.i.
 Organum employed in Guirlands, 90.i
 Orisache, what weed, and why so called, 145.a. the description and use thereof, ibid.
 Orobanche, what hearbe, 249.e
 Orobitis, a kinde of Borax artificiall, 471.b
 Orometis, a mountaine of salt, 415.a. yeelding great remedies, ibid.
 Orpheus, a writer in Physicke, 40.l. he wrote exactly of hearbes, 210.m
 Orpiment a minerall, whereout gold was extracted, 469.d
 the description and use thereof, ibid.
 Orpine, an hearbe, 290.l. the description, ibid.
 Orpin, a painters colour, 518.k
 Orisopacke, how they be diseases, and what remedies for them, 59.b. 66.m. 105.d. 106.l. 107.e. 108.i. k. 121.c
 131.e. 156.b. 173.b. 181.a. 192.m. 199.a. 200.l. 247.b
 253.d. 278.b. 283.f. 288.b. 289.d. 290.i. 318.i. 370.l. m
 381.b. 432.i. 471.e.
 Orithagoriscus, or Porus, a fish, grunting like an Hog, 429.b.
 O S
 Osee. See Words.
 Ossifragus, a kinde of Geir or Vulture, 383.b
 the use of this bird medicinable, ibid. e
 Ossifragus first wrote of Magicks, 373.a. be set it first abroad

in the world, ibid.
 Ostracis, a pretious stone, 628.m. the kinds, 629.a. how it differeth from an Agath, ibid.
 Ostracis, a pretious stone, 629.a. how it took the name, ibid.
 Ostracite, what stones, 589.a. why so called, ib. the vertues that they haue in Physicke and otherwise, ibid.
 Ostratum, a shell-fish, thought to be the same that Onyx the fish, 449.b. the vertues, ibid.
 Ostrich greace sold deare, 362.k. the use thereof, ibid.
 Ostris, an hearbe, 286.l. the description, ibid.
 Ostrites, or Cynocephalia, a magickall herb in Egypt, 375.b
 the wonderfull power thereof by the saying of Apion, ib. c
 O T
 Oremale, the use and vertue thereof in Physicke, 140.m
 Orthonne, an hearbe, 286.i. the description, ib. called by some Anemone, ibid.
 Othus a river yeelding salt, 413.m
 Otter, a kinde of Bieuer, 451.b
 O W
 Scritch Owle, what lies the Magicians haue deliuered of it, 359.e.
 O X
 Oxalis a kinde of Docke, 73.a
 Oxalme, what it is, and the use thereof, 157.b
 Oxus, a river yeelding salt, 414.m
 Oxyeraton, what it is, 155.e. the medicinable vertues that it hath, ibid.
 Oxygala, what it is, 319.b. how made, ibid.
 Oxylapathum, an hearbe, 73.b. the description and vertues thereof, ibid.
 Oxytell how it was made in old time, 157.a. the effects thereof, ib. b
 Oxyrmyne or Chamamyrine, an hearbe described, 175.b
 named also Ruscus by castor, ibid. c
 Oxyr. a kinde of fish, 100.k
 Oxyr, an hearbe, 286.m
 Oxyrhachis, a kinde of fish, 100.k
 O Y
 Oyle of Oliues, or mother of oyle, what medicinable vertues it hath, 159.c. how to be used in diuerse cases, 159.c. d.
 Oyle Olive of sundry kinds, which be medicinable, 160.b. i
 Oyle Olive Omphacium for what it serued, ibid. i
 Oyle Ocunanthinum, the operations thereof good and bad, ib.
 Oyle of Tick-seed, called Cicinum, the vertues thereof, 160.m
 Oyle of Baies the vertues that it hath, 161.c
 Oyle of Chamamyrine or Oxyrmyne, of what operation it is, ibid. d
 Oyle of Cypresse, what vertues it hath, ibid.
 Oyle of Citron, and the vertues, ibid.
 Oyle Carynnum, or of Walnut kernels, & the operations, ib.
 Oyle of Thymelae seed, 161.e
 Oyle of Lentuk or Mastick, what be the vertues thereof, ib.
 Oyle of Cypros, for what uses it seruet, 161.f. See Oile.
 P A
 Pacuvius, a poet and painter both, 526.g
 Paanides, pretious stones, why they be also called Gemonides, 629.c. their vertue, ibid.
 Pa-

of Plinies Naturall History:

Paderis, what signifeth, 622.b. a pretious stone, ibid. the description, ibid. the praise of it, 622.i. the best is the Argemon, the next the Indian Senites, ib. their defects, ibid.
 See Opal and Amethyst.
 Paderis, an hearbe, 129.c
 Q. Paderis borne dumbe, learned painters craft, 526.i
 Pagasai, hot springs breeding salt, 414.m
 Pagrus, a river-fish, medicinable, 445.e
 Pains in horses how to be cured, 144.m. 150.k
 Paine of the stomacke how cured, 57.c. 60.g. 61.d
 Paine occasioned by the stone, how eased, 332.k
 Pains generally of the bodie, how to be eased, 74.i. 387.c
 128.b. 136.k. 144.l. 182.l. 233.d. 236.i. 313.b
 350.i.
 Pains ensuing upon strains and dislocations, how to be eased, 129.a
 Paine proceeding from some secret and hidden cause, how to be assuaged, 423.f. 351.b. 354.l
 old Pains and griefes, how to be mitigated, 313.d
 Palace stately of Paulus Aemilius, 581.e
 Palacra, or Palacrena, what they are, 469.b
 Palimpsestus, what it is, 183.e
 Palurus, what thorne, 195.d. the seed medicinable, ibid.
 Pallacra, what Omon, 20.k
 Pallus, a rich slave enchain'd, 479.c
 Palonis, shell-fishes, and their medicinable vertues, 443.c
 Palfie the disease, by what medicines prevented and cured, 49.d. 52.k. 62.l. 139.e. 155.d. 161.c. 183.f. 283.f. 318.g
 335.d. 388.g. 412.g. 422.k. 431.a. 432.l.
 Pamphilus, a notable painter, learned with all and grounded in Arithmetick and Geometrie, 537.b. a deare teacher, ibid.
 Panaces, an hearbe, why so called, 214.i. a common name to many hearbes, ib. ascribed all to the gods, ib.
 Panaces Aesclepien, why so called, ibid.
 Panaces Heracleum what it is, and why so named, 214.l
 it is cleped also Origanum Heracleoticum, and why, ib.
 Panaces Chironum, why so called, 214.l. the description ib.
 the flour medicinable, ibid.
 Panaces Centaureum or Pharnaceum, why so named, ibid.
 the description, 214.m. the uses whereto it serueth, ibid.
 Panchrestia, what medicines, 590.b
 Panctas, a pretious stone, 629.a. the reason of the name, ib.
 Panctas an herbe, 287.e. the description and vertues ib.
 Panctas, a pretious stone, 629.b. commended much by queene Tamaris, ibid.
 Panens a painter, when he flourished, 532.m. he painted the battaile at Marathon, with the full proportion of the captaines, 533.c. challenged by Timagoras and overcame, 533.d
 Pangenius, a pretious stone, 629.b. the description and reason of that name, ibid.
 Pani, bites in the flare and other emunctories, how to be driven backe in the beginning, 444.k. 560.b
 how to be ripened and broken, 385.d. 560.b. 444.l
 a singular ointment for that purpose, ib. how to be resolved and discolled, 385.e. 433.b. 437.d. 444.k
 Panicke, the medicinable vertues thereof, 139.f
 by whom called Mel-frugum, ibid.
 Pannicus, a picture of Tauriscus his making, why so called, 550.i
 Pansebasos, a pretious stone, the same that Paneros, 629.b

Pantheon, a temple at Rome, wherein the chapters of the pillars were all of brasse, 589.b. built by Agrippa to the honour of Iupiter Reneger, 581.f
 Panthers, whom they will not assault, 359.b
 Paps of women and maids overbig, how to be taken downe, 413.c. how they shall not overgrow vnderneath, 448.i
 Paps impostumat how to be cured, 128.g
 Pappos. See Groundswell.
 Papyr reed in Egypt, the medicinable vertues, 191.d.e
 Papyr made thereof, what operation it is of, 191.e
 Pappus Fabianus, a great Naturalist, 586.i
 Paradium, a kinde of Poppie, why so called, 69.a
 Paralus the name of a famous ship painted by Protopetes, 542.b.
 Parafius an excellent painter who challenged Zeuxis, 535.a
 their peeces of workmanship, ibid. b. what Parafius invented and added to the Art, 535.c. his excellencie in pourtraying, 535.c. his defect in painting, ib. his desire to paint the people of Athens, ibid. e. f. his pride, arrogance, and vainglorie, 536.b. i. he was put downe by Timanthes in the picture of Atax, 536.i. his speech thereupon, ib.
 Paratonium, a painters white colour, 528.k. why so called, 529.c. how sophisticated, ibid. the price and use, 529.c. d
 Paraphoron, what kinde of Alum, 558.i
 Pardalos, a pretious stone, 630.l
 Parerga, what they be in painters worke, 542.b
 Pargis for wale, of Panemus his making, 595.a
 Parietarie of the wall, an hearbe, 273.a. why it was called Perdicium, 99.c. why it was not named Parthenium, 123.e. See Helxine.
 Paring of nails superstitiously obserued, 298.b. for what it is good, 310.b. i
 in Paros a vein of marble representing within it the image of Silenus naturally, 565.c
 Parsnep wild, or Madnep, 17.f
 Parsnep white. See Skirwort.
 Parsnep wandring called Staphylinus, the medicinable properties thereof, 40.i
 Parthemis, an hearbe. See Artemisia.
 Parthenium, an hearbe, 111.e. 123.b
 Passe flour Anemone, 92.b. when it floureth, ibid.
 Pastetes, an excellent cutter in marble and ymorie, 570.b
 his worke, ibid. he wrote fine bookes of all workes of fine workmanship, ib. how hardly he escaped a Panther, ib.
 Passernices, a kinde of whetstones, 193.b
 Past to glew withall, what it is good for in Physicke, 139.c
 Pasture making horses enraged, 226.g
 Pasture driving asses into madnesse, ibid.
 Patience hearbe described, 73.b. the root thereof, 19.d
 Pavements whose invention, 596.g
 the manner of Paving an open floure vpon a terrace, 596.k
 Pavings called Lithostrata, 596.m. Paving Grecanick, ib. l
 Pavonacea, what workes in tiling, 592.b
 Pausias, a cunning painter, 80.k. 546.k. his delight was to draw small pictures and prettie boies, ib. his celeritie in worke, 546.l
 Peaches, a harmelesse fruit, and medicinable, 169.d
 Peacocks dung medicinable, 367.d. they eat their dung againe so soone as they haue mewred, for ennie to man, ibid.
 Peas, what kinde of meat, 166.k. the medicinable use of Peas, and the ashes of Peare-tree, 166.k. k
 Peccen

The Table to the second Tome

<i>Pecten Veneris</i> , what hearbe, and why so called, 206 g. the virtues that it hath,	ibid.	<i>Peripneumonia</i> or inflammation of the lungs, how to be cured,	167.d. 180.k. 200.l. 287.f
<i>Pecunia</i> , why money in coine is so called,	462.l	<i>Perisson</i> , what hearbe,	112.k
<i>Pedes Gallinacei</i> , what hearbe,	236.l	<i>Peristemon</i> , what hearbe, 228.g. why so called,	231.c
<i>Pedigrees</i> and descents observed among the Romans, 523.d		See <i>Vernaine</i> .	
<i>Pedunculati</i> , creepers in the sea good for the infirmities of the eares,	439.c	<i>Perna</i> , a kinde of fish, and the strange nature thereof, 452.l	
<i>Pedunculati terra</i> , what they be,	379.c	<i>Perperis</i> , what hearbe,	104.g
Painting in ancient time reputed a noble art,	522.g	<i>Perprella</i> , what hearbe,	255.c
Painting of stones when deuised	522.b	<i>C. Perreus Atinas</i> , honoured with a grasse chaplet, 117.b	
<i>Turpillius</i> left handed, an excellent Painter,	526.b	<i>Perseus</i> a painter, who wrote of painting,	544.b
<i>Q. Pedius</i> borne dumbe, learned to be a Painter,	526.i	<i>Persey</i> of diuerse kinds, 24.g. how to be sowne and ordered,	
Painted clothes deceiue birds,	526.i	29.c.d. it serueth in coronets,	29.d
when the first Painted tables of a forreiners worke was brought to Rome,	527.a	how cooks and vintners vse Parsley,	34.b
Painting with fire of two kinds,	551.b.c	<i>Persey</i> much praised, 53.c. the virtues thereof, ibid. male and female, 53.f. their description,	ibid.
Painting of ships,	531.c	<i>Persey</i> not admitted to the table, and why,	54.g
a Painted table cost the weight in gold,	533.a	the discommodities of persey,	ibid.
prizes proposed for Painters winning the best game, 533.d		stone <i>Persey</i> , commonly called <i>Petroselinum</i> , the virtues that it hath,	54.l
art of Painting reduced into three kinds by <i>Eupomus</i> to wit, Ionick, Sicyonian, and Atticke,	537.a	<i>Perfoliata</i> , what hearbe, 229.c. the description,	113.d
Painting schoole frequented by gentlemen's sonnes,	533.b	<i>Perfoliata</i> , an hearbe vsed in gairlands,	ibid.
Painting with wax,	546.b	<i>Personages</i> . See <i>Images</i> compleat.	
Painting or pouring with a coale, who first deuised,	525.b	<i>Personaria</i> , an hearbe. See <i>Arcion</i> , or <i>Clot-burr</i> .	
who first Painted with colours,	525.c	<i>Perwinkle</i> , an herbe described, 92.m. named <i>Chamadaphne</i> ,	110.m
Painting Art, raunged in the first degree of Liberaill Sciences, 537.b. it might not be taught vnto slanes,	ibid.c	<i>Perwinkles</i> , fishes, medicinable,	442.i
Painting, whose inuention,	525.a	Pestilent infection, by what preseruatiues to be prevented,	
<i>Pelagius</i> , what oysters, and why so called,	436.k	173.c. 201.b. 202.b.	599.b
<i>Pelamis</i> , the Tunie fish, when he is so called,	451.d	Pestilent aire, how to be corrected,	578.i
<i>Pelamis</i> is medicinable,	444.l	<i>Petesuccus</i> , a king of Egypt, built the first Labyrinth,	ibid.
<i>Pelecinum</i> , an hearbe, 288.i. the description,	ibid.	<i>Petulum</i> , what floure, 89.c. the qualities thereof,	ibid.
<i>Pelops</i> , a writer in Physicke,	433.d	<i>Petraea</i> , a kinde of Colewort, 50.l. the description,	ibid.
<i>Pelops</i> his rib of Luorie,	299.f	the medicines that it yeeldeth,	ibid.
<i>Penelope</i> a singular picture of <i>Zenxis</i> making,	534.k	<i>Petraea</i> Colewort, the greatest enemy to wine, 50.l. it killeth dogs,	51.a
<i>Penicilli</i> the softest and finest sponges, 423.d. where and how they grow,	424.l	<i>Petridius</i> , an Herbarist and writer,	78.g
<i>Peniroyall</i> an herbe, the virtues thereof, 60.b. male and female,	60.i	<i>Petroleum</i> , or <i>Petroleon</i> , a kinde of Bitumen,	415.e
<i>Peniroyall</i> , why it is called in Greeke, 220.m.	61.a	<i>Petronius Diodorus</i> , an Herbarist and writer in Physicke,	48.b. 228.m.
<i>Pentadactylon</i> , what hearbe, and why so called,	207.b	<i>T. Petronius</i> upon his death-bed brake a rich <i>Cassidore</i> cup,	603.e
<i>Pentadactyla</i> , what bristles,	555.e	<i>Pencedinum</i> , what hearbe, 229.f. See <i>Harstrang</i> .	
<i>Pentapetes</i> , what hearbe,	228.l	<i>Peumene</i> , what kinde of Litharge,	474.k
<i>Pentaphyllon</i> , what hearbe,	228.l	<i>Peziza</i> or <i>Pezici</i> , what <i>Musbromes</i> they be,	8.g
<i>Peplium</i> , what hearbe it is, 69.d. the virtues thereof, ibid.		P H	
hurtfull to the eyesight,	70.k	<i>Phacos</i> , what it is,	142.b
<i>Peplos</i> an hearbe, 287.f. the description,	ibid.	<i>Phagedena</i> , eating sores, 447.f. how cured, ibid. See <i>Vlcers</i> .	
<i>Pepones</i> what fruit,	14.b	<i>Phagedena</i> , what it signifyeth otherwise,	259.d
<i>Pepperwort</i> . See <i>Dittander</i> .		<i>Phalangion</i> , or <i>Phalangites</i> , an hearbe, described,	288.l
<i>Percus</i> , the ashes of their heads medicinable,	444.m	the blew spider <i>Phalangium</i> described, and the sting thereof,	360.k
<i>Perdicium</i> , what hearbe,	111.e	<i>Phalangium</i> , a venomous spider, the remedies against the prick,	45.e. 52.l. 54.k. 101.e. 105.c. 106.k. 108.l. 110.k. 126.k. 127.b. 153.b. 157.d. 170.g. 173.d. 174.i. 179.b. 187.d. 188.m. 190.b. 202.b. 250.i. 237.f. 274.g. 288.l. 290.i. 360.g. h. l. 413.b. 433.e.
<i>Perfumes</i> by sweet hearbs commended by <i>Orpheus</i> and <i>Hesiodus</i> ,	211.a	<i>Phalangium</i> unknowne to them in <i>Italic</i> , 360.g. the sundry kinds, ib. the description, manner of sting, and cure, ibid.	
<i>Periboeus</i> , an Image of <i>Praxiteles</i> his making, why so called,	500.k	<i>Phalaris</i> , an hearbe,	289.a
<i>Pericarpum</i> , an hearbe, 232.g. the kinds and description, ibid. the operation,	ibid.	<i>Phalaris</i> a tyrant, who caused <i>Perillus</i> to be tormented by his owne engine and torture,	504.b
<i>Periclimenos</i> , an hearbe,	288.g	<i>Phalerum</i>	
<i>Perileucos</i> , a pretious stone, why so called,	629.c		
<i>Perillus</i> , a cunning brasse founde famous for the brasse bull to torment folke,	504.b		
punished worthily for his owne handy worke,	504.i		

of Plinies Naturall History.

<i>Phalerum</i> <i>Demetrius</i> honoured with 360 statues at Athens, 492.k. the same were all ouerthrowne within one yeere,	ibid.l	64.i. 66.k. 75.e. 181.a. 187.f. 219.d. 350.g. 389.e. 430.m. 573.c.	
<i>Phalercon</i> , a painter, and his workmanship,	550.b	<i>Phrygium</i> ,	391.c
<i>Phanias</i> a Physician, made a treatise in the praise of Nettles,	122.g	<i>Phrygian stone</i> , why so called, 589.d. how calcined, and for what it is good,	589.e
<i>Phaon</i> of Lesbos, why so beloued by Sappho,	119.c	<i>Phrynon</i> , what hearbe,	231.a. 288.i
<i>Pharos</i> the tower in Egypt, what it cost in building, 478.g		the effects that it hath, the names and description, 231.a	
<i>Softratus</i> the <i>Guidian</i> was the architect of this watch-tower, ibid. the uses of this tower,	578.b	<i>Phthisicke</i> or consumption, what remedies be respectiue to it, 43.a. 44.b. 76.i. 127.e. 129.c. 173.c. 181.d. 183.d. 199.f. 200.l. 202.b. 224.k. 247.d. 259.c. d. 303.d. 317.e. 318.k. 319.d.e. 320.g. 336.i. 388.g. 412.k. 446.k. 588.g.	
<i>Pharicum</i> , a poison, what is the remedie,	323.a	<i>Phn</i> , or <i>Setwall</i> , the virtues that it hath,	104.l
<i>Phasganion</i> , an hearbe. See <i>Xiphion</i> .		<i>Phycites</i> , a pretious stone, why so called,	629.c
<i>Phasolium</i> . See <i>Isohyron</i> .		<i>Phycos</i> <i>Thalassion</i> . See <i>Reike</i> and <i>Sea-weed</i> .	
<i>Phasachates</i> , a pretious stone,	623.e	<i>Phyllon</i> , what hearbe,	123.a. 288.m
<i>Phellandron</i> , an hearbe, 289.a. the description and vertue, ibid.		<i>Physer</i> , a tearme of <i>Lipidaries</i> , what it signifyeth,	631.e
<i>Pheneus</i> , a river in Arcadie,	411.a	<i>Physicke</i> flourisheth about the <i>Peloponnesiacke</i> warre, and was professed by <i>Hippocrates</i> ,	373.d
<i>Phengites</i> a shining stone,	592.l	<i>Physicke</i> nature is simple, 176.k. that is the best,	ibid.
<i>Phenion</i> , what hearbe,	109.c	<i>Physicians</i> well rewarded in old time for their cures, 344.b	
<i>Phidias</i> , the most excellent imageur in stone that euer was,	495.f	<i>Physicke</i> drugs far set and compounded, <i>Plinie</i> inuetheth against,	137.d. 176.l
495.f. he wrought the noble image of <i>Iupiter Olympius</i> , 497.a. he deuised chasing and embossing in metall, 497.c. his workes,	497.d. 566.g	<i>Physicke</i> in old time consisted of simples,	211.d. 242.b
<i>Phidias</i> was also a painter, 532.l. when he flourished, ibid.		<i>Physicke</i> most properly handled in the Greeke tongue, 346.l	
he painted the shield of <i>Minerva</i> in Athens,	ibid.	against the abuse in <i>Physicke</i> and of <i>Physicians</i> , an inuention,	347.a.c. 348.b. i. 349.a
<i>Philanthropos</i> , an herbe, See <i>Aparine</i> , <i>Clivers</i> , and <i>Eryth</i> .		<i>Physicke</i> noted for much incortitude and no soliditie, 343.d	
<i>Philemon</i> , a writer of Naturall Philosophie,	606.g	a gainfull art,	ibid.
<i>Philetaria</i> , an hearbe. See <i>Polemonia</i> .		many times changed,	345.d
<i>Philippenis</i> , the resemblance of a boy in brasse, why so called,	503.a	<i>Physicke</i> fathered vpon canonized gods,	343.d
<i>Philiscus</i> , a famous painter,	550.b	<i>Physicke</i> , when it was regarded at Rome,	346.k.l
<i>Philisio</i> , a writer in Physicke,	40.k	<i>Physicke</i> and <i>Physicians</i> , the occasion of many enormities and misdemeanors,	347.e
<i>Philocares</i> , an hearbe,	74.m	<i>Physicians</i> in Rome of great name, and reuenues by yeerely fees,	344.k
<i>Philocares</i> a painter, famous for the picture of <i>Glaucion</i> and his sonne <i>Aristippus</i> ,	527.e	<i>Physicians</i> are not chosen and called as <i>Iudges</i> , <i>Alimma</i> sters and others,	347.b.c
<i>Philopes</i> , an hearbe,	74.m	<i>Physicians</i> arguing about their patients, hinder the cure,	345.c
<i>Philosophers</i> and learned men, what imageurs delighted to represent in brasse,	503.e. 504.g. k	many nations liue without <i>Physicians</i> , but not without Physicke,	345.d
<i>Philoxenus</i> , a painter, 543.f. his workes and readie hand,	544.g.	<i>Physicke</i> long ere it was entertained at Rome,	345.e
<i>Phinthia</i> , a fontaine wherein nothing will sinke,	404.i	soone reiected,	ibid. 349.b
<i>Phlegmaticke</i> humors, what doth purge,	432.l. 442.l	<i>M. Cato</i> an enemy to the Greeke <i>Physicians</i> ,	346.g. b
433.a. See <i>Fleame</i> .		he condemned not <i>Physicke</i> ,	346.i
<i>Phlegontis</i> , a pretious stone,	630.l	he liued according to <i>Physicke</i> of <i>Simples</i> , and so maintained himselfe and familie in good health,	346.i. k
<i>Phleon</i> , what hearbe,	120.l	<i>Physiognomists</i> , who they were, 539.d. See <i>Metoposcopi</i> .	
<i>Phloginos</i> , a pretious stone, called also <i>Chrysites</i> ,	629.b	<i>Phyteuma</i> , an hearbe,	288.l
<i>Phlonides</i> , what hearbes,	230.k	P I	
<i>Phlomis</i> , an hearbe.		<i>Pibble</i> stones not good for building vntill they be bound with strong mortar,	593.c
<i>Phlox</i> , a floure vsed in gairlands,	91.b	<i>Piconia</i> , a spring,	408.g
<i>Phoenicea</i> , what hearbe, and the medicines that it affordeth,	140.k	<i>Picris</i> , a kinde of Lettuce or <i>Cachorie</i> , 241. why so called,	99.d. 127.e.
<i>Phoenicites</i> , a pretious stone, why so called.	629.c	<i>Pictores</i> , a surname to the house of the <i>Fabij</i> , wherefore	525.f.
a <i>Physicall</i> receipt made of the ashes of the bird <i>Phoenix</i> , a mere imposture and fabulous deceit,	349.d	the answer of a Dutch Embassador as touching a Picture,	527.b.
<i>Phoenix</i> , a famous imageur in brasse, and his workmanship,	502.l	<i>Pictures</i> liuely for the memorials of men, 522.k. much esteemed in old time,	524.g
<i>Phoenix</i> , a great architect and engineer,	575.c	<i>Picture</i> ,	
<i>Phonos</i> , an hearbe, why so called,	98.b		
<i>Phormion</i> , what kinde of Alume,	558.i		
<i>Phragmitis</i> , a reed medicinable,	450.i		
<i>Phrenis</i> cured best by sleepe,	260.k		
for the <i>Phrenis</i> , appropriat remedies, 37.b. 44.g. 49.f. 57.e			

Pictures inserted within books by M. Varro, 524.g.
 ibid. *ibid.*
 M. Agrippa his oration as touching removing of Pictures
 out of priuie houses and setting them up in publicke
 places, 527.c.
 Picture of Nero, Colosse-like in cloth, 120 foot high, 531.b.
 burnt with lightning, *ibid.*
 Pictures of sword fencers, and their fight, who deuis'd,
 532.i.
 Pictures unfinished, more admired than the perfect, 550.k.l.
 Proud pictures, when they were first entertained at Rome,
 482.l.
 Pignitis, a kind of earth, 559.f. the operation, 560.g.
 the sea-Pike Lupus, how wittie he is to auoid nets, 427.e.
 how he and the booke part after he is caught therewith,
 428.g.
 Pillars in building, of foure sorts, 594.a. Dorick what they
 be, b. Ionick, c. Tuscan, *ibid.* Corinthian, *ibid.* At-
 tick, 595.b.
 proportion of Pillars, of their length to the building, of height
 to their thickness, 595.b.
 Piles and painefull swelling bigs in the fundament, how to
 be cured, 105.f. 106.l. 120.i. 134.g. 139.e. 158.l.
 160.b. 161.c.d.f. 194.g. 169.e. 172.g. 174.l. 193.b.
 196.b. 255.f. 256.g. 272.i. 278.b. 393.a. 306.i. 333.d.
 351.a. 352.k. See more in fundament.
 Pilewort. See Celendine.
 Pills purgatiue, 252.b.
 Pills of goats dung good for the eye-sight, 325.a.
 Pimpernell the herbe, 234.i. the diuers kinds and their de-
 scription, *ibid.*
 Pimples rising upon sweat how to be repressed, 161.e.
 Pimples red in the face or skin, by what remedies cured,
 37.a. 44.i. 47.c. 52.i. 55.e. 65.e. 70.k. 76.g. 173.c.
 184.k. 187.c. 320.b. 327.d. 328.b. 377.d. 421.e. 443.e.
 516.b.
 Pin and web, what medicines do take away, 100.l. 119.d.
 144.i. See more in Eies.
 Pine-nuts or apples their vertues in Physicke, 171.c.
 Pionie or Pionie the herbe most ancient, 214. why so
 called, *ib.* the description, *ib.* 282.k. two kinds, the male
 and female, 282.l. the vertues in Physicke, 214.i.
 danger in digging up the roots, 282.l.m.
 Pip in pullane how to be helped, 44.m. 189.c. 193.d.
 Pipes for water conduits of clay baked, 411.d.
 Pipes of Lead, 411.e.
 Pipes of sundry sizes, *ibid.*
 Pipes Denaria, Quinaria, *ibid.*
 Piperitis the herbe, why so called, 34.g. it is named Sili-
 quastrum, 64.g. the description, *ib.* the vertues, *ibid.*
 Pismires in a garden how to be killed, 32.k. they are medi-
 cinable, and their eggs likewise used in medicines for the
 eares, 369.b.
 Pismire cure beares when they be sicke, *ibid.*
 Pissasphaltum, what it is, 183.f. 557.b. Naturall and
 Artificiall, 183.f.
 Pissaloon, what kind of pitch, 179.e.
 Pissing blond, how to be cured, 111.a. 180.k. 195.c. 199.b.
 205.a. 254.m.
 Pissing with difficultie how helped, 124.g. 171.e.
 See Urine.
 Pistana, what herbe, 100.b.

Pit-waters, when coldest, 410.g. when they decrease and
 rise, 410.b.
 Pitch of diuers kinds, 183.b. what Pitch is best, 183.b.
 the severall uses of all the kinds of Pitch, *ibid.*
 Pitch agreeeth well with oile, 176.i.
 Pitch tree, what vertues it yeeldeth medicinable, 181.c.
 Pitiuitaria, what herbe, 149.a.
 Pityocampe, what worme, 362.b. the remedies against it,
 157.c. 160.k. 318.b. where it breedeth, 362.b. how
 to be prepared for use in Physicke, 362.i.
 Pityusa, what herbe, 182.g. the description and medicina-
 ble vertues thereof, *ibid.*
 P L
 for the Plague, a remedie, 155.d.
 Plaies and Comedians, what imagents delighted to por-
 tray in brass, 503.f.
 Plane tree, the medicinable vertues that it hath, 184.k.
 Plantaine the herbe, 223.b. two kinds of it, *ib.* the descrip-
 tion, 223.c.
 Plaster both Naturall and Artificiall, 595.d.e. how to be
 made and wrought, 595.e. the use thereof in building,
 395.c.f.
 C. Procleins in a fit of the stomacke-paine, dranke Plastre
 and willingly killed himselfe, 595.f.
 Plaster taken inwardly, how the danger may be auoided,
 160.k. 318.b.
 Plaste, who they be, 552.b.
 Plaste, what Art, 494.b. 552.b. See Potterie.
 Plate of diuers fashions, 480.k.
 inconstance of men in the varietie thereof, *ibid.*
 Plate vessel of silver and gold, and the abuse thereof in
 Rome, 463.f.
 a captain displaced for hauing fine pound weight in silver
 Plate, 481.b.
 Pompeius Paulinus banished for hauing 12 pound weight
 of silver plate in the camp, 481.c.
 superfluitie in Plate, brought vpon Rome the plague of ci-
 uile warre betwene Sylla and Marius, 481.d.e.
 Plate costly for workmanship, 482.b.
 C. Gracchus his costly silver Plate, in regard of the curious
 engraving, 482.b.
 exesse in Plate, when it came generally into Rome, 482.i.
 a merrie speech of Carthaginian Embassadors as touching
 the Plate of the old Romans, 481.c.
 Platters called Patinarum Paludes, 554.b.
 Plutophthalmon, why Stimmi or Antimonie is so called,
 473.c.
 Platy, a broad Tendon, 255.e.
 a Plethoricall bodie, or ranknesse of blond, how to be taken
 downe, 443.a.
 12.m.
 Pliniana, what cherries, 35.c.
 Plinius, a Greeke writer in Physicke, 35.c.
 Plumtree, and the medicinable vertues thereof, 169.c.
 Plumbago, an herb, 361.k. 359.e.
 Plumbago, a fault or blemish in the Emerald, 612.k.
 Plumbum, a disease in the eies, how to be cured, 236.k.
 Pluresie or Pleuresie, with what medicines it is cured, 40.k.
 57.d. 63.c. 65.a. 67.d. 75.a. 104.b. 105.a. 107.e. 128.i.
 129.f. 134.l. 135.d. 144.i. 150.g. 167.d. 173.c. 180.g. 180.g.
 184.l. 186.i. 193.a. 196.m. 198.i. 200.l. 248.b. 255.b.
 271.d. 287.f.
 small

P O
 smal Pocks and such like eruptions, how to be cured, 418.m.
 421.e. 422.b. 437.d. 443.b.
 ale-Pocks about the nose how to be healed, 128.b.
 Pockle, the gallerie, at Athens, why so called, 523.f.
 Ponnies at Rome lenied at the first, of boxes and mut-
 tons, and not of coine, 455.a.
 Punicum, what stone, 592.g.
 Poets ignorant in Cosmographie, 606.g.
 Polca, what it is, 330.i.
 Polemonia, an herb, thought to be Saugo de Bois, 230.i.
 Polemonia an herb, how it took that name, 220.k. why it
 is named Chiliodynama, *ibid.* the description, *ibid.*
 Polenta, what it is, 139.a. the medicinable vertues there-
 of, *ibid.*
 Polia, a pretious stone, 630.m.
 Polion an herb, highly commended by Musaeus and Escio-
 dus, 211.a.
 Polium, an herb, 88.i. two kinds thereof, and the vertues,
ibid. commended much by some, and condemned againe
 by others, 106.g. h.
 Polio Asinus erected a Bibliotheque or Librarie at Rome
 523.f. he furnished it with statues and images of rare
 workmanship, 569.a.
 Pollio Romulus his Asporhegus as touching honied wine
 and oile, 136.m.
 Pollution or shedding of seed in sleepe vpon weakenesse, by
 what remedies it is cured, 46.l. 48.g. 58.k. 59.c. 70.i.
 256.l. 518.l.
 Polyanthemum, an herb, 286.m. called Bairaebion, *ibid.*
 Polybius, a Greeke writer, 424.l.
 Polyces, an imaginer, and his works, 502.l.
 Polycletus, a famous imaginer in brass, 488.i.
 he used Dilatacke metall, *ibid.*
 his exquisite works, 497.e.
 he brought the Art of founderie into a method, 497.f.
 diuers pieces of his making, *ibid.*
 Polycletus a writer, 403.f.
 Polycnemum an herb, described, 265.f. the vertues, 266.g.
 Polycrates the tyrant his ring, and stone in it, 449.b. it was
 a Sardonyx, 601.a. he wisely threw into the deepe sea,
 600.l. he found it againe in a fishes belly, 601.a.
 Polygala, an herb, why so called, 288.i.
 Polignotus, a famous painter, 484.k. his deises and in-
 ventions, 533.c. his rare workmanship, *ibid.* his liberal
 mind, *ibid.* how he was honoured by the states of
 Greece, 534.g.
 Polygnaton, what herbe, 223.a. 287.a.
 Polygonum, an herb, 287.a. why so called, *ibid.*
 Polygynecon, what picture of Athenian his drawing, 548.b.
 Polyus, an ulcer in the nose, 251.b. See Nose vicers.
 Polypodium, what herbe, 355.a. the description, *ibid.* why
 called also Filicula, *ib.* the vertues, *ib.* the offences that it
 worketh, 255.b.
 Polyrhizon, what herbe, 216.e. 289.a.
 Polyrhizon, what herbe, 228.i. the vertues, *ibid.*
 Polyrhiza and Callirhiza, two capillare herbes, their de-
 scription and how they differ, 232.i.
 Polyritz, a pretious stone, 630.l.
 Polyzonot, a pretious stone, *ibid.*
 a Pomado for chaps in lips or face, 327.f.
 Pomadoes of other sorts, 320.k.

Pomegranats, their properties in Physicke, 164.k. whether
 to be eaten to a fener, or no, *ibid.*
 Pomegranate rind, what it serueth for, 164.f. why called
 Malicorium, *ibid.*
 Pomona compared with Ceres, Flora, and Tellus, by the way
 of Propopoea, 145.c.f.
 Pompeius Lenax, a Grammarian and Linguist, 209.f.
 he translated into Latine the medicinable receipts found
 in K. Mithridates his closet, 209.f.
 Pompeius Magnus his glorious third triumph, 602.k.
 what gold, silver, iewels, & pretious stones, he then shew-
 ed, 602.k.l.
 Plinie enueigheth bitterly against Pompey for this tri-
 umph, 602.m.
 his bounteous liberalitie in the said triumph, 603.a.
 his triumph set the Romans, a longing after pearles and
 pretious stones, 602.b.
 he brought Cassidorens cups first into Rome, 603.c.
 Pompholix, what it is, and how it differeth from Spodos,
 511.d.e. the vertue thereof, 511.e.
 Pompions. See Melons.
 Pond-weed. See Water Specke.
 Pontice, the pretious stones of Pontus, 629.b. the sundry
 sorts, *ibid.*
 Pontific or high Priest letting fall a morsell of meat at the
 board was ominous, 298.b.
 Poplar white, a tree, what vertues it hath in Physicke, 185.a.
 Poppa the Emperesse bathed ordinarly in asses milke, for to
 make her skin faire, soft, and smooth, 327.c.
 Poppa shod her horses with gold, 480.m.
 shee kept five hundred shee asses for to bath with their
 milke, 327.d.
 Poppies of three kinds, 30.l.
 the seed of the white Poppie conserved, *ib.*
 It seasoned bread, 30.m.
 white Poppie heads medicinable, 67.e.
 blacke Poppie, 31.a. wandering Poppie, *ibid.*
 the description of wandering Poppies, 68.l.
 Poppies wild, their severall kinds and vertues, 67.e. 68.g.
 K. Tarquinius the Proud ropt off Poppie heads, 31.a.
 what he made thereby, 31.b.
 Poreblinder, how sighted, how to be helped, 367.d.
 the Porcellane shellfish staied Periander his ship at sea, 426.i.
 consecrated to a God, 426.i.
 Porcius Cato a great student, and looking pale therewith,
 68.d. his scholars affected to looke pale like him by ea-
 ting Camin, *ibid.*
 Pourcullie fish Polypus, how he auoideth the hook like to
 a catfish, 427.f.
 Pourcullies not to be sodden with salt, and why, 447.a.
 Porphyrite marbles, 573.c.
 Porpus fish described, 446.g. his finnes venomous, *ibid.*
 The romney, *ibid.* his fat medicinable, 440.l.
 Porus a kuchen herb, how to be sowne and ordered, 21.a. b.
 the medicinable vertues thereof, 42.l. See more in Leeks.
 Porus, what stone, 589.
 Posing what it is, 535.d. the hardest point in paine,
ibid.
 Pose a cold, what medicines do break and reforme, 69.
 189.e. 304.k. 377.f. See Rheume.
 Posidonius, a famous astronomer, why so called, and the nature of it,
 401.e.
 Posidonius

The Table to the second Tome

Pytheus an admirable grinder, 483.f. his workmanship exceeding costly, ib. his works, 483.f. 484.g.
Pytheus the rich Bithynian, 480.g.
Pythne, Priestesses and Prophetesses, 569.d.
Pythias, a kinde of bulbe, 19.b.
Pythius, an excellent mason and architect, 568.l.
Pyxicauthus, a bush, the berries whereof are medicinable, 195.d.

Q V

Quadrans, a small piece of brasse coine at Rome, 463.b.
Quadrans stamped with pents or small boats, ibid.
Quadrans, silver pieces of coine at Rome, why so called, 463.c.
Quadrans, what goldfoile, 465.c.
Quadrans chilling for cold, how to be helped, 136.g.
Quadrans and alabaster, what causeth, 342.i.
Quadrans, stones ready framed, found naturally in the grounds, 588.i. turning about of the owne accord, ibid.
Quadrans agues outward to be cured in old time by any good course of Physicke, 390.b.
Quadrans the *Quadrans* ague, appropriat remedies, 441.67.a.
Quadrans, 1203.f. 1203.k. 1203.l. 151.d. 219.e. 223.d. 260.b. 268.f. 301.b. 302.b. 309.e. 310.i. 311.b.c. 312.f. 313.g. 335.f. 336.g. 356.i. 390.i.k.l.m. 391.a.b.c. 413.a. 432.m. 435.a. 445.f. 446.g.h.i. 557.f.
Quadrans ague, how cured, 310.i. 311.b. 335.f.
Quadrans brimstone. See *Brimstone* and *Sulphur*.
Quadrans, silver a poison, the remedies thereof, 121.e. 153.b. 318.f. 323.a. 364.b.
Quadrans, silver Natural where it is found, 473.a.
Quadrans, the power thereof, ib. it is worth gold, 473.b.
Quadrans, it purifieth it. the great affinitie betwene gold and it, 473.c. it is rare, ib.
Quadrans pro *Quadrans* in Physicke, dangerous and condemned, 348.f.
Quadrans, fire stones, what they be, 589.a.
Quadrans, good for cures in a campe, ibid.
Quadrans, they will strike fire, ibid.
Quadrans, a piece of silver coine at Rome, of what value, 463.a.b.
Quadrans, for what good, 163.d.
Quadrans, called *Melinum*, what vertues it hath, 64.g.
Quadrans, at Rome, and their collodge, 295.b.
Quadrans, See *Cinquesele*.
Quadrans, 347.c. delegates chosen with good circumstance, ibid.
Quadrans, grafted described, 206.i. why called *Gramen Per-nassi*, 206.k. the vertues that it hath, ibid.

R A

Rabirius, a writer in Physicke, 308.g.
Rabirius, what heark it is, 99.e. where it groweth, ib.
Rabirius, what it is of, ib. what names it hath, 102.f.
Rabirius, the medicinable vertues that it hath, ib. why it is called *Amara Pericoma*, ib.
Rabirius described, with their properties, 16.i.k.

Radiſhes of excessive bignesse, 17.a.
Radiſhes of three sorts, 16.k. the *Radiſh Agrion*, *Armon*, or *Armoracia*, which some call *Leuce*, 16.m.
Radiſh seed, where to be sowne, 17.a.
Radiſh roots how to be ordered as the grow, 17.a.b.
Radiſhes in *Ægypt*, and why, 17.c.
Radiſh medicinable, ibid.
Radiſh highly esteemed among the Greeke, ibid.
Radiſhes cure the phthisicke, 17.d.
Radiſh presented in gold to *Apollo*, ibid.
Radiſh in the praise of *Radiſh* a booke compiled, 17.e.
Radiſhes marre teeth, and polish yvorie, 16.
Radiſhes their medicinable vertues, 39.b.
Radiſhes wild, and their vertues, 39.a.
Radiſhes corrected by *Hyssope*, 40.g.
Ragwort an herb. See *Orchis* and *Satyrion*.
Rai-fish or *Skate*, medicinable, 439.d.
Raine water kept in cisterns, whether it be wholesome or no, 406.g. it altereth the nature of some river waters for the time, 410.k. it looseth doth corrupt, 406.k.
Raisins of what operation they are in Physicke, 148.k.
Raisins, especially, cleansed from their stones, ibid.
Rams how they shall get none but ram-lambs, 400.g.
Ramifies a king of *Ægypt* erected an obeliske of one entire stone, a hundred foot high w. wing one, 574.l.
Rams his deuse to fasten his owne sonne to the top end of it at the rearing, 573.a.b.
Ranunculus, an herb. See *Crowfoot*.
Rapes of two kinds, 16.g.
Rape of lead offered to *Apollo*, 17.d.
Rape roasted by *Manius Curius* for his refection at the table, 38.k.
Rapes medicinable, ibid.
Rasoir a fish, and the nature thereof, 428.i.
Rasps, why called in Latine *Rubus Idæus*, 197.a.
Rasps, the medicinable vertues that it hath, 197.a.
Rats and mice how to be killed, 124.b. 128.l. 195.f.
Rat of *Indie*. See *Ichneumon*.
Rauens thought to be ill at ease all Summer long, 355.a.
Raw places how to be skinned, 565.f. See *Galls*.

R E

Reate waters medicinable, 403.c.
Red gum in children, how to be cured, 127.c. 306.i. 307.b.
Reeds and canes serving in Physicke, 405.i.
Refrigerative or cooling medecins, 46.g. 47.c. 67.c. 103.e. 120.k. 131.e. 136.g. 142.b. 147.a. 155.d. 167.b. 189.d. 192.b. 305.a. 221.e. 223.d. 236.g. 237.c. 250.g. 259.c. 287.b. 290.g. 473.d. 474.b. 475.a. 511.f. 529.f. 560.i. 591.c.
Re the Regard of the eye in some cases of men held to the venomous, 298.l.
Reins in the backe pained how to be eased, 37.a.c. 40.k. 42.b. 53.b. 70.b. 115.b. 283.a. 304.d. 305.c. 329.e.
Reins, with what medecins they be purged, 77.e. 104.l. 126.l. 443.a.
Reins for the infirmities of the *Reins*, comfortable medecins, 148.k. 171.c. 181.f. 182.g. 206.i. 248.b. 275.c. 290.i. 252.b.
Reits or *Sea*-woods medicinable, 276.g. 437.e. as good as *treacle*, ib. sundry kinds going under the name of *Alga*, ib. they serve the dyer for a faire colour, ibid.
Relapse in agues how to be prevented, 391.d.
a Remedy for all diseases, 357.a.
Remus,

of Plinies Naturall Historie

Remus, a writer, 462.l.
Remora, a fish. See *Echeneis*.
Rennet of *Fawne* or *Hind*-calfe, is most aduise to serpents, 321.f.
Repreſentative medecins, 139.a. 158.g. 174.l. 278.c. 284.b. 290.g. 424.g.
Reſeda, what herbe, 289.a. the vertues thereof, ibid.
Reſolutive medecins. See *Discuffine*.
Reſtaurative for them that be false away, 41.c. 127.e. 130.i. 134.b. 136.g. 139.d. 155.d. 162.m. 167.c. 171.c. 181.d. 259.b. 318.g. 413.c. 446.i.
Reſtharrow an herbe, 98.l. the description, ibid.

R H

Rhacoma, 259.b. what root, ib. the description, ibid.
Rhagion, a kind of spider, 360.i. the description, ibid. the manner of pricke or sting, ib.
Rham, what kind of bramble, 197.b. their severall kinds, and the description, ib. the medicinable vertues, ib.
Rhapon, an herbe. See *Leontopetalon*.
Rhaphanus *Agria*, what herbe, 253.b.
Rhaphanus, the clarified juice thereof is medicinable, 253.c.
Rhe the dose, ibid.
Rhepantie. See *Centaurie* the great.
Rhetorick, a gainfull profession in old time, 470.b.
Rheumatism, what they be, and how cured, 124.b. 133.c. 223.c. 310.l.
Rheums or distillation how to be dried and staied, 43.a.c. 44.b. 53.c. 55.b.d. 66.g. 70.k. 72.b. 141.a.b. 149.a. 153.f. 159.f. 161.c. 172.k. 177.d. 197.d. 224.l. 236.i. 249.f. 281.e. 287.b. 303.c. 309.d. 370.m. 380.m. 412.k. 414.b. 437.c. 443.a. 519.c. 531.c. 760.b.
Rhenus thin, how to be thickened, 194.i.
ſtutting Rheums, how to be staied, 183.c. 239.e.
Rheumo into the eyes, how to be cured. See *Eier* watering, ibid.
Rhexias, what herbe, 253.b. the description, 278.l.
Rhinocifia, 630.m.
Rhodites, a pretious stone, 630.m.
Rhododaphne. See *Oleandre*.
Rhododendron. See *Oleander*.
Rhodope, neither of them both hath a name in Latine, 192.g.
Rhodope a famous harlot, built one of the *Pyramides*, 578.g.
Rhodora, what herbe, 205.d.
Rhous, what *Poppie*, 31.a. how it differeth from *Ane-mone*, 109.d.
Rholus, one of the architects that built the *Labyrinth* in *Lemnos*, 579.c.
Rhopalos, an herbe. See *Nensphar*.
Rhus a shrub, hath no Latin name, 193.g. the description, ibid.
Rhus, the medicinable vertues that it hath, ibid.
Rhus, why it is called the *Curriers* shrub, ibid.
Rhyparogaphus. See *Pyriceus*.

R I

Ribwort. See *Plantaine*.
Ricinus an herbe, 161.a. the seed, berries, and oyle thereof, what properties it hath in Physicke, and otherwise, ibid.
Ricini in *Alulberrie* trees, what they be, 170.i.
Riding on horsebacke, what causes good, 303.d.
Rings of gold worn at first upon the left hand, 455.b.
Rings of gold worn at first upon the left hand, 456.g.
Rings of iron used by Romans and *Lacedamonians*, 455.b.
Rings upon the fingers a bad example, 455.a.

the Rings of *Giges*, 455.b.
Ring diversly named, 455.d.
Rings of gold, to whom allowed first at Rome, ibid.
Rings how used, 455.e.
wedding Rings of yron, ibid.
golden Rings not knowne in Homers time, ibid.f.
a law for wearing of Rings, 460.b.
when Rings were worn ordinarily at Rome, 455.m.
Rings worn at Rome by Senators only, as a badge of their honourable place, 457.c.
when they were worn more ordinarily by Senators, *Gen-tilmen* and *Commons*, 457.e.
three modys of Rings at the battaile of *Canna*, ibid.
a Ring caused the quarrell betwene *Drusus* and *Cæpio*, ibid.
from whence arose the *Martians* warre, 457.f.
ancient Senators wearing Rings of yron only, 458.g.
Rings with signets to seale, ibid.
Rings set with pretious stones, 458.h.
Rings massive sealing without a stone, 458.h.
Rings first put upon the fourth finger of the left hand, ibid.
an order or regularitie set downe by *Tiberius*, as touching the use of Rings upon the fingers, and whereupon, 460.l.
the ceremonie of laying a Ring upon the table before sitting downe to meat, for what purpose, 297.d.
Ring with a signet or signe manuell, upon what finger worn in Rome, 458.k. the cause and occasion of much mischief, ibid. used for assurance in contracts, ibid.
it began by occasion of *usurie*, ibid.
Ringworms, by what remedies they be killed, 36.g. 49.e. 124.b. 128.g. 139.a. 146.k. 158.m. 172.i. 187.e. 194.b. 252.b. 265.d. 285.a. 300.i. 307.c. 413.b. 419.b.
Riparis, what Swallowet, 378.i.
Risings in share and other emunctories, how to be repressed or resolved, 122.g. 126.l. 137.b. See more in *Groine*, *Pulbes*, and *Pani*.
Risels or wrinkles in the skin of womens faces, how to be laid even and smooth, 38.l. 103.b. 127.d. 150.b. 161.b. 171.d. 184.b. 268.k. 319.c. 327.c. 416.b. 437.c. 439.a. 441.a.
River waters, 406.l.
what Rivers ordinarily have bad waters, 406.l.
what Rivers yeeld wholesome waters, ibid.
Rivers at all times not of like taste, 410.i.
the water of the same River not at all times alike whole-some, 410.i.
River fresh turning to be salt, 411.b.
Rivers of salt where, 414.m.

R O

bearb-Robart. See *Geranium*.
against robbing how to be secured, 315.d.
Rocket the herbe, good in a salad with *Lettuce*, 29.a.
the medicinable vertues thereof, 55.e.
why called by the Greekes *Euzomos*, 55.f.
Rocking, a good means to procure sleepe, 303.e. good also for health, ibid.
Romans a second Sun-shining to the world, 269.e.
Romans in an ill name for comotousnesse, 463.c.
Rome admirable for stately adifices, 581.d.e.
Roofe of sores how to be taken off, 141.l. 448.b.
Roots of divers kinds, 19.d.
Roots lying hidden all winter season, 13.d.
Roots

The Table to the second Tome

Root of an herbe broken within the ground, thirty foot long,	214.g.	Rue a counterpoison for Libard-baine,	ibid.
Roots lesse effectually, if the herbes be suffered to seed,	291.f	Rue male and female,	57.b
Ropes made of rushes and other matter,	7.a	Rue killeth the infant newly conceived,	58.k.l
Rose bushes, how to be set or planted,	84.b	Rubbing of the body maketh for health,	303.d
Roses grafted,	ibid.	hard and soft, worke diuers effects,	ib.
the Rose bush and the Rose described	83.a	See more in Frictions.	
use of Roses.	83.b	Rubies a pretious stone,	616.b
the medicinable vertues of Roses,	ib.	why Rubies be called Appropy.	ibid.
Roses served up with viands,	ibid.	Rubies of diuers sorts,	ibid.
the best Rose,	83.d	Rubies of India, ib. of the Garamants or Carchedonij, ibid.	616.i
Roses, their severall parts and names to them,	102.b	Rubies of Ethiopia and Alexandria,	ibid.
their distinct vertues,	ibid.	Rubies Alabandines or Almandines, why so called,	ibid.
Rose of Perseus, 83.c. of Capua, Miletum, Trachinie, and	ibid.	Rubies male and female, with their descriptions,	616.i.k
Alabanda,	83.c	Rubies Amethysizontes, which they be,	616.i
Rose Spineola,	83.d	Rubies Syriae, what they are,	ibid.
Rose Centifolia, why so called,	83.e	Rubies of India called Lithizontes,	616.k
Rose Campion,	ibid.	Rubies Orchomenian,	ibid.m
Greeke Rose,	ibid.	Rubies Traxenian, ib. Corinthian,	617.a
the Rose Gracula,	ib.	Rubies of Marfili and Lisbon,	617.a
Rose Moecenon,	ibid.	Rubies are much sophisticated, 617.a. how the fraud is discovered,	617.b
Rose Coronella,	83.f	Rubie minerall, called Anthracites,	ibid.b
where the best Roses grow,	ib.	Rubies of other sorts,	ibid.f
Rose of Campaine,	84.g	Rubric, a red earth or ruddle in great request in Homers	476.g
Rose bushes how to be ordered,	84.b	time,	528.i
Rose leaves how to be dried, 162.l.m. their vertues,	ibid.	Ruddle or Rubrica, a painters colour,	528.i
basie Roses flourishing all winter long,	84.g	Rubrica of Lemnos counted the best and most medicinable,	528.m.
Rose oil odoriferous,	83.b	Ruddle for carpenters, which is best,	529.b
Rose wine,	102.b	Rumax, what herbe,	73.b
Rose oyle,	ibid.	Running of the reins how it may be staid,	72.i. 130.k
Rose juice medicinable,	102.i.k	Ruptures inward, spasmes, and convulsions, how to be helped,	167.f. 272.l. 385.a. 444.b
Rose of Iericho. See Amomum.		Rupture when the guts bealne downe, how cured, 444.b.i	
water Rose. See Nenuphar.		Rupture waterish called Hydrocele, how to be healed, 385.e	
Rosemary called Libanotis,	34.g	Ruptures in young children bursten, what remedies, 397.e.f	
Rosemary of two kinds,	193.a		
in Rosemarie, what Cactrys is,	ibid.		
Roset, a rich painters colour,	528.i		
how it is made of Tripoly or goldsmiths earth died, 530.l.m			
Roset of Pincoli the best, and why,	531.a		
the price of Roset,	ibid.		
Rosins of sundry kinds,	182.b		
Rosins dry of Pine and Pitch trees,	182.b		
the medicinable vertues of all Rosins,	ibid.i.l		
of what trees the Rosins be best,	182.k.l		
of what countries and places the Rosin is best,	182.k		
Rosins how to be dissolved for plaisters and outward medicines, 182.k. how for potions,	ibid.		
Rostrum, the publicke place of orations at Rome, why so called,	491.a		
Roving upon the water for what diseases good,	303.d		

R V

Rue killed with the touch of a menstruous woman,	308.m
Rue a medicinable herbe,	56.k
the juice of Rue taken in great quantitie is poison,	ib.
what is the remedy,	ibid.
Rue stolne, thriueh best,	23.e
when and where to be sowne,	29.a.b
Rue given in a largesse at Rome,	29.b
Rue and the Fig-tree, sowne well together,	ibid.
Rue doth propagat, and set it selfe,	29.c
the weeding of Rue is troublesome,	ib.
how that may be helped,	56.i

S A

Sabine stone, how it will burne of a light fire,	588.l
Sacall: the same that Ambre,	606.k
Sacopenum, a physick herbe, 30.l. called Sagapenum, 67.d	ibid.
the vertues which it hath,	ibid.
Sacrificing mans flesh, when forbidden at Rome,	373.f
Saffron a medicinable spice,	104.m
Saffron the hearb and flower,	86.g
how to be set, ib. where is the best,	ibid.
the manner of choosing Saffron,	86.b.i
how it is used,	86.c
the manner of the growing,	99.e
Sagda,	

of Plinies Naturall Historie.

Sagda, a pretious stone,	629.d	Salt of sundry colours,	416.k
Sagitta, what herbe,	110.b	floure of Salt, 417.b.c. the properties thereof,	ibid.d
Sagmina, what they are,	115.d	how sophisticated,	ibid.
Salin Crystall, what it is,	605.a	the nature of Salt,	418.l
Salads of herbs commended,	12.i.k	Sales in Latine, what they signifie,	416.m. 417.a
Salamanders poysen, with what medicins repressed,	56.m	Salaries, what they be,	417.a
121.c. 150.d. 157.c. 160.k. 318.b. 358.m. 432.b.k		Salaria Via, a street, why so called,	ibid.
433.i.		Salustius Dionysius, a famous Physitian,	440.g
Salamander of all serpents most dangerous,	358.k.l	Salutio, a surname or addition to the family of the Sci-	
he destroyeth whole nations at once,	ibid.	pioes,	523.d
by what meanes,	ibid.	Samian earth of two kinds,	559.d
his venome is Narcoticke and extreame cold,	ibid.	Samian stone, 591.a. good to burnish gold, good also in	
of Salamanders, swine feed without danger,	385.l	Physicke,	ibid.
whether his body do extinguish fire or no,	359.a	Samolus, an herbe, with what ceremonious circumstances	
Salicetrum what plant, and why so called, 149.c. the ver-		to be gathered,	193.f
ties thereof,	ibid.	Samothracia, what they be,	458.i
Sally the priests, what chaplets of floures they wore,	82.g	Samothracia, a pretious stone, why so called,	629.d
Siliunca, an herbe, described,	82.b	Sampier, what herbe, 236.k. the description,	254.k
the use thereof, ibid.	105.f	the manifold uses that it hath,	254.l
Salt gem.	415.d	Sampier Savage,	256.f
Salow. See Willow.		Sand of the sea shore, for what medicinable,	414.i
Salt Theriacus, or Theriacalus, a kind of medicinable salt,		Sand used to slit and saw marble with,	572.b.i.k
366.l.m.		Sand for mortar, which is good,	594.k
Salpe, a learned and expert midwife, who wrote of Phy-		Sand of Puteoli, of a wonderfull nature,	554.l
sicke,	300.k	Sand of Nilus, wherfore used at Rome, & elsewhere, 555.a	
Salt petre, 421.b. how the best is knowne,	ibid.c	Sandaracha, a painters colour artificiall,	528.k
Salsugo, or Salsilago, what it is,	417.d	Sandaracha artificiall, how made,	530.g
Salt seasoneth viands,	176.i	the right colour and the price,	ibid.
Salt be it naturall or artificiall, proceedeth of two causes,		Sandaracha naturall, where it is found, 520.m. which is	
414.i.		best, ibid. the qualities thereof,	ibid.
Salt in what places made by drying in the Sun,	ibid.k	Sandaresos, a kind of gem,	617.d
Salt an household gruel,	417.b	Sandaser and Sandareson,	617.e
Salt Spanish, for what infirmities it is most medicinable,		Sandastros, a kind of gem or pretious stone, of the baser sort	
419.a.		ib.	
Salt compounded for to get an appetite,	416.l	617.c. called by some Garamantites,	
Salt mountains,	415.a	the description thereof, and why it is much regarded by	
Salt minerall,	ib.	the Chaldaens, 617.d. male and female,	ibid.
walls and houses built of Salt,	ibid.	Arabian and Indian,	ibid.
Salt for Physicke, which is best,	416.k	which Sandastros is best,	617.e
Salt growing sensibly in the night season,	415.b	how Sandastros Sandaser, Sandareson, and Sandaresos, be	
Salt best for poudring or seasoning meat,	416.l	distinguished,	ibid.
Salt Ammoniack, 415.b. why so called,	ib.	Sandauer,	416.k
the description, ibid. it is medicinable,	415.c	Sandix minerall, a painters colour,	528.k
light within earth, heauie above ground, and the reason	ib.	Sandix artificiall, how made,	530.g
why, ib. how it is sophisticated,	ib.	the price of Sandix,	530.b
pit or poole Salt,	415.c	Sandix, Virgil rooke to be an herbe,	530.g
the manifold uses of Salt in Physicke.	418.l	Sandragon, a colour of painters,	528.i
Salt for the kitchen, which is best,	416.k.l	Sangenon, a kind of Opal,	614.l
Salt artificiall how it is made, 415.d. of sea water,	ib.	Sanguis Draconis, or Sandragon, what it is,	476.g
out of certaine springs or wells,	ibid.e.f	how it is sophisticated,	476.i
Salt Spring,	416.g	Sanguis-Rod, what plant,	189.b
Salt for the table which is best,	416.k.l	the medicinable vertues that it hath,	ib.
Salt made by fire,	416.g	Santerna. See Borax of goldsmiths.	
Salt blacke,	ibid.	the vertues medicinable that it hath,	509.c
Salt made of ashes, ib. of fish pickle or brine,	ibid.b	Sapa. See Cuit.	
Salt water, for what garden seed it is good,	33.b	Samphire, a pretious stone,	620.l
poole-Salt, which is best,	416.b	diuers sorts, and which be best,	ib.
sea-water Salt which is best,	ibid.	hard to be cut.	ib.
the nature and temperature of Salt,	418.l	which be the male,	ib.
in what seasons and constitutions of weather, Salt engen-		Sapron, what it is,	318.l
dreth most,	416.i	Sarcion, a fault in gems,	412.m
Salt not sparkling in fire, but in water,	416.i	Sarcocolla, what it is,	197.e
		the medicinable vertues thereof,	ibid.
		O o o 3	Sarcopha-

of Plinies Natural Historie.

251.b
ibid.c
251.d
ibid.e
ibid.
199.e
ibid.
130.g
ibid.
630.i
lled, 563.b
and Cali-
583.d.e
112.k

308.k
20.h
352.k
317.c
ibid.
ib.
558.b
367.d
590.g
ibid.i
471.e
dicines it is
58.g. 134.m
5.k. 188.b
8.m. 248.i
5.a.b. 276.i
315.a. 330.b
31.i. 442.k

316.i
ib. & 433.e
316.i
316.k
81.f
ople of Rome
ibid.
eople, 82.g
and coine bee
480.m
brought into
481.e
upon the win-
481.a
ib.
f Rome for his
480.o
or graffe cora-
117.e
509.b
509.c
ibid.
177.e
be cured, 59.a
418.i.
ntile, 300.k
98.i. 130.m
ibid.
Scombr,

Seed naturall in men what doth encrease, 77.f.
 shedding unwillingly how cured, 48.g. 72.i. 130.c.
 Seggullum, what carth it is, 466.l.
 Selago, an herbe like Savin, 193.d. with what ceremonious
 circumstances to be gathered, *ibid.*
 Selekti at Rome, who they were, 490.g.
 Selenites, an admirable pretious stone, 629.d.
 Selinas and Selinoides, what kind of Coleworts, 48.k.
 Selinus earth, for what it is good, 559.f.
 Senatours of Rome how knowne from Knights or Gentle-
 men, 459.c.
 Senerio, what herbe, 228.k. See Groundswell.
 Sengreene. See Honseleeke.
 Sences how preferred, 74.b.i. how stified against cutting
 or saving off a member, 314.l.m.
 Sennaie the herbe how it groweth, 31.b. the temperature
 and kinds thereof, 31.b.c. how to be dressed, 31.c.
 threee kinds thereof, 73.f. the qualities that it hath,
 73.f. 74.g.
 Sennic juice how it is drawne, 74.k.
 Septa, a venomous worrne or a kind of Lizard, 157.b. 263.d.
 it curseth the owne bite, 363.d. it is otherwise called
 Dispsa, 173.a. remedies against the venome thereof,
 157.b. 434.g.
 Septimuleius for conetonsnes of gold killed his deare friend
 C. Gracchus, 463.e.
 Serapias, a kind of Orchis or Stundlewort, 256.m. the de-
 scription, 257.a.
 Serapion, a painter, that loved to paint great pictures of
 Theatres, &c. but man or woman he could not draw,
 544.i.
 Seriphium Wormewood, the vertues that it hath, 443.d.
 Serpents how they are knowne to be retired and gone, 132.k.
 Serpents when they have sting a man, neuer retire againe
 into the earth, but die as it were for remorse of consci-
 ence, 358.k.
 Serpent hardly plucked out of their holes but by the left
 hand, 299.c.
 Serpents gather together by the perfume of the bene about
 their owne throat, 321.d.
 Serpents chased away by the fume of an Harts horn burnt,
 321.d.
 what other means there be to chase away Serpents and re-
 sist their payson, 38.k. 39.b. 40.b. 41. 42.g. 43.m. 43.n. 44.e.
 45.e. 47.a. 48.b. 50.g. 51.a. 52.a. 53.c. 54.i. 56.i. 57.a.
 56.a. 60.g. 61. 62.g. 63.b. 64.c. 64.k. 65.b. 74.g.m.
 77.f. 78.b.i. 101.d. 103.a. 104.g. 105.c. 106.g.
 107.b. 108.i. 110.g. 118.m. 124.i. 125.a. 126.b.
 129.d. 131.d. 134.i. 135.d. 138.k. 139.b. 139.e.
 142.k. 143.b. 148.g. 149.a. 153.b. 162.g. 165.b.
 168.k. 169.e. 172.l. 173.d. 177.g. 178.m. 179.a. 179.e.
 180.k. 181.f. 182.b. 184.k. 186.g. 187.c. 188.a.
 189.e. 191.f. 195.d. 198.i. 199.b. 200.g. 201.c. 202.
 202.k. 206.f. 212.g. 222.m. 223.d. 226.k. 227.a.
 237.e. 228.k. 228.m. 229.c. 230.b. 233.a. 235.e.
 236.f. 239.a. 254.m. 258.i. 274.i. 275.f.
 278.k. 282.g. 283.b. 284.k. 288.l. 289.a. 290.i.
 300.g. 301.a. 306.i. 307.g. 312.m. 316.g.
 318.b. 321.e. 322.b. 353.b. 355.d. 356.g.
 358.g. 359.a. 361. 413.b. 418.l. 422.b. 431.b. 431.f.
 434.g. 435.e. 557.d. 561.d. 573.b. 589.g.
 590.g.

Serpents:

The Table to the second Tome

Serpents how to be brought asleepe, and mortified, 316.b
 Serpyllum, what herbe it is, and the sundry kinds, 75.d
 Serrani, a familie in Rome wearing no linens, 2.l
 Serratula, an herbe. See *Beronia*.
 Serta and Service, what they are, 80.i
 Servants many retained in one house, what abuse and in-
 continence thereof, 459.a
 M. Servilius Nonianus what a foolish ceremony he obser-
 ved to keepe himselfe from bleared eyes, 298.k
 Servius Tullius K. of Rome, how hee was supposed to bee
 concerned, and whose sonne, 599.d
 Sesama, the medicinable vertues that it hath, 140.g. the
 discommodities proceeding from it, *ibid.* the oyle
 thereof, *ib.*
 Sesamoides, an herbe, and the medicinable vertues there-
 of, 140.g. h
 Sefeli. See *Siler*.
 Sesostris, a proud prince, K. of Egypt, vanquished by Esu-
 bopes, 464.i
 Serfiterius, a silver piece of coine at Rome, worth what,
 463.a. b.
 Seranios, a kind of Bulbe, 19.b
 Serwall the vertues thereof, 104.l
 Sextius Niger, a writer in Physicke, 72.b. 316.k

S H

Shadow in pictures, 528.b
 Shadow-like fish Sciana medicinable, 444.k
 Shaking of limbs how to be helped, 141.b. See trem-
 bling, *ibid.*
 Sharewort, an herbe, 256.b. the description, *ibid.*
 Share, and the infirmities thereof, how to be avoided, 256.b
 See more in *Groine* and *Pisces*.
 Sheepe hurt by tasting Pimpernell, how they cure them-
 selves, 234.l
 Sheepe without gall in Pontus, and the reason of it, 276.i
 Sheepe rotten or otherwise diseased, how to be helped, 144.b
 221.a. how to recover their stomackes, and make them
 fall to their meat, 351.c
 Shells of fishes serving as trumpets to sound withall, 451.e
ibid.
 Shells of egges and fishes, why crushed and broken when the
 meat is eaten forth of them, 296.i
 Shields and scutcheons of armes, in memoriall of ancestors,
 who brought up first at Rome, 524.i
 Shields why called Clypei, *ibid.*
 Shields presented the lively images of those which bare
 them, *ib.*
 Shield of Asdruball, 524.m
 Shingles how to be cured, 44.k. 105.a. 122.k. 139.a. 143.c
 146.k. 157.g. 158.m. 174.k. 265.d. 278.l. 284.k
 287.b. 309.d. 337.g. See more in *S. Antonies*
 fire.
 Ships provided for transporting Obeliskes out of Egypt to
 Rome, 575.e
 Shoulder blades pained, how to be eased, 255.g. 312.b
 379.c.
 Shuds of Flax how employed, 4.k
 hardi-Shrow biting is venomous, and the remedies against
 it. 43.e. 50.g. 55.e. 56.g. 71.e. 167.a. 168.m. 277.c
 322.k. 360.m. 361.a.
 she will not goe over a cart-trail, 361.a

S I

Sibylla, three Prophetesses, their statues at Rome of Brasse,
 491.d.
 L. Siccus Dentalis, a brave warrior, 116.k. honoured
 with sundry chapters for his good service, *ibid.*
 Sicilie aire killeth scorpions, 623.e
 Scycione, a city famous for workemen in mettall and mine-
 rals, 564.b
 Scycione in name for cunning painters, 547.b
 Sides, pain or stitches how to be eased, 57.d. 123.a. 246.l
 247.b. 248.b. 275.g. 381.e. 442.k. See more in
 Pleurise.
 Sideritis what herbe, 123.b. the vertues thereof respectiue
 to the eyes, 233.f. wonderfull in staunching of blond,
 263.e.
 Sideritis, a pretious stone, 629.d. the vertues there-
 of, *ib.*
 Sideropacilos, a pretious stone, 629.d. why so called, *ibid.*
 Signet or signe manuell. See *Ring*.
 Signina, what kind of workes, 554.k
 Sil, a colour mineriall, what it is, 484.b
ibid.
 Sil, which is best, 484.b. the price, *ibid.*
 Sil Atticum, the price, *ibid.*
 Sil Scyricum, 484.i. the price, *ib.*
 bright Sil, 484.i
 the use of all sorts of Sil, 484.i
 Silanion, a fine Imageur in brasse, 502.l. the finely expressed
 Apollodorus the cunning workeman, *ibid.*
 Silanus, an herbe, 255.c. the description, *ibid.*
 Silence at the board from one end to the other, what it pre-
 jageth, 298.g
 Siler or Sefeli, an herbe, 41.c. the description thereof, *ib.* the
 severall kinds and properties that it hath, *ibid.*
 Siligo, the fine wheat, what medicines it doth affoord,
 137.f.
 Silphium, 8.b. engendered by showres of raine, 133.e. the
 medicinable vertues thereof, 134.g
 the root of Silphium hard of digestion, and breedeth ventri-
 sities, *ib.* it stoppeth the passage of urine, *ib.*
 Silurus a fish medicinable, 442.b
 Silybum, an herbe, 248.g. the vertues, *ibid.*
 Silybum, a base herbe, 130.m
 Simonides, a painter, 550.b. his workes, *ib.*
 Simples and compositions compared together, 135.b
 Simples or herbes of lesse effect, the more they bee used,
 292.g.
 Simus a painter, 551.b. the pictures of his drawing, *ibid.*
 Sinadian gray marble, 522.i
 Sineves shrunk, how to be mollified and drawne out, 129.b
 134.l. 138.g. 173.c.
 Sineves stiffe how to be made supple, 161.f
 Sineves benumbed with cold, what doth recover, 74.l
 for sineves and their infirmities in generall, comfortable
 medecins, 48.m. 49.b. 137.a. 187.e. 212.l. See more
 in *Nerves*.
 Sinopis or Sinopum, a painters colour, why so called, 528.k
 of diners kinds, *ib.* which is the best, *ib.* the price, *ib.*
 the use in painting, *ibid.* the medicinable vertues,
 528.l.m.
 Sinneffa, waters medicinable, 402.l
ibid.
 Sion, what herbe, 130.k. the description, 592.b
 Siphonian stone, employed in vessels to seeth meat,
 592.b
 Siria-

of Plinies Naturall Historie

Sirais in children, what disease, 126.i
 Sirungus, a strange and unknowne beast, 399.d
 Sijapone, a territory in Spain famous for a mine of Vermil-
 ion, yielding to Rome a great rent yearly, 476.i
 Silymbrium, an herbe described, and the vertues that it
 hath, 75.f
 Silymbrios, a kind of bulbous herbe, 19.b. the strange na-
 ture that it hath, *ibid.*

S K

Skab and scurfe in man or beast how to be healed, 36.g
 42.b. 49.g. 58.b. 64.k. 74.i. 128.k. 129.a. 146.j. 149.c
 155.f. 161.a. 166.l. 168.j. 169.a. 173.g. 197.d
 319.f. 338.l. 353.g. 370.f. 377.d. 413.b. 418.m. 419.b
 420.g. 446.m. 450.b. 506.k. 516.b. 557.g.
 Skald heads how to be healed, 43.f. 52.g. 59.d. 60.g. 72.g
 105.e. 127.c. 133.g. 141.b. 142.j. 147.b. 153.f. 157.g
 158.m. 161.b. 163.g. 177.f. 178.g. 180.g. 191.g
 196.b. 201.e. 207.f. 232.j. 249.e. 277.d. 287.g. 306.i
 324.b. 341.d. 357.a.
 Skarefire named at the table ominous, 297.e
 how the danger of a Skarefire may be averted, *ibid.*
 Skars and their strokes or markes remaining, how to be re-
 duced to their naturall colour, 36.b. 39.f. 55.f. 61.b
 65.a. 144.g. 149.g. 189.f. 266.b. 286.i. 287.a. 319.f
 328.l. 339.a. 394.f.
 medecins skinning without Skars, 51.a
 Skars or markes how to be taken out of the skin, 239.d
 245.a.
 Skars rising up aboue the flesh, how to be brought downe,
 430.b. 448.b. 475.a. 518.l.
 Skars or wild Plums what vertues they affoord medicina-
 ble, 169.d
 Skin of face or body blemished with spots and speckles un-
 seemly, by what means it may be cleansed, 37.a. 106.i
 144.g. 157.f. 160.i. 171.g. 184.k. 185.g. 200.k
 207.g. 268.i. 308.g. 311.a. 314.k. 318.m. 377.b. e
 475.a.
 Skin picked and skaled, and full of scurfe, how to be mundifi-
 ed, 103.b. 158.m. 377.c.
 Skin of the face rough and rineled, how to be made smooth
 and even, 162.k. 368.k. 311.a. 327.g. 377.g. 420.g
 589.a. 591.g.
 Skin looking wan and dead, how to be made fresh and line-
 ly, 377.g
 Skin red and itching how to be delaid, 337.a
 Skin of the body how to be made faire, white, and smooth,
 326.i. 416.b. 559.f.
 Skin scorched with cold wines how to be helped, 311.a
 Skirwort wild, the properties thereof, 41.a
 Skirwort root accepted by Tiberius the Emperour, 18.b
 how to Skare clothes, 157.f

S L

Slaves three enfranchised by Claudius the Empero: sur-
 passed M. Crassus in riches, 479.e
 Slaves who having bin chalked on their feet for the market
 became wealthy afterward, and in honourable estate,
 561.a. b.
 Sleepe by what means it may be procured, 42.g. 43.d. 44.l
 45.g. 49.a. 66.i. 67.g. 68.g. 73.m. 102.k. 104.b
 105.a. d. 161.c. 162.g. i. 166.g. 171.d. 191.g. 234.e
 249.d. 259.d. 260.k. 277.g. 303.g. 341.g. 398.k. 424.l
 430.g. 434.

Sleepe how to be discussed in a drowse disease, 144.b. 398.l
 446.b. See more in *Lairgargie* and *Drowse* dis-
 ease.
 Sleeping on the right side commended, 303.e. See *Lying*
 in bed.
 how to Sleepe securely without fearefull dreames and visi-
 ons, 357.a. See *Illusions*.
 Sloen, their vertues in Physicke, 169.d

S M

Smaragdites, a mountaine, why so called, 612.m
 Smarides, small fishes medicinable, 444.m
 Smyrnium, the herbe, how strangely it groweth, 30.g. why
 it is so called, *ibid.*

S N

Snap-dragon, an herbe, 231.e. the description and ver-
 tues, *ib.* See *Calnes* snout.
 Snails with shells excellent for the lungs, 380.i. k. how to
 be dressed, *ibid.* which be the best, *ibid.* those of the vi-
 uer, and their medicinable vertues, 435.e
 Snake slough of great efficacye, 376.l
 Snakes, whether they cast their slough at the rising of the
 Dog starre, or no, 376.k
 Snake dedicated to the god of Physicke, 358.g
 in the forme of a Snake Esculapius came to Rome,
 358.b.
 Snakes when they be venomous, 358.g
 for Snakes and Adders payson, what remedies be appropri-
 at, 226.m. 227.a. 294.l. 358.g. 435.c.
 in Sneezing, why we wish health to our neighbour & friend,
 297.c.
 Tiberius Caesar very ceremonious in that point, of being
 salued when he Sneezed, 297.c
 Sneezing by what means it is provoked, 55.d. 109.b. 193.a
 218.k. 232.l. 239.e. 291.a. 430.l.
 Sneezing immoderat, how to be staid, 66.i. 155.e. 183.c
 218.l.
 Sneezing in what cases wholesome, 304.k
 Snow laid for and sought in Summer, 11.e
 Snow water, whether it be lighter and better than spring
 water, 406.g

S O

Soders of sundry kinds, 472.g. of Gold, *ibid.*
 of Iron, 472.b. of Brasse in masse, *ibid.*
 of Brasse in plates, *ibid.* of Lead and marble, *ibid.*
 of blacke Lead, *ib.* of Tinne, *ib.* of Silver, *ib.*
 Sochus, a King of Egypt that reared Obeliskes, 574.l
 Socrates, a famous Imageur in marble, 569.a
 Socrates a painter highly commended, 549.a. 569.a. his
 workes, 549.a
 Sole fish medicinable, 443.f
 Solanum, what herbe, 112.b. the hurtfull qualities that it
 hath, 112.i
 Soldanella, or sea Colewort, a purgative, 51.c
 Soldanella, 359.c
 Solifuge, or Solpuga, what Insects, & the remedies against
 them, 145.b. 361.e
 Solon of Smyrna, a writer in Physicke, 71.b
 Soluble, how the body may be made and kept, 74.b. 121.f
 122.b. 126.k. 137.a. 172.j. 164.b. 166.j. 167.a
 169.g. 170.g. 172.j. 180.k. 181.a. c. 182.m. 186.g
 192.l. 199.e. 250.k. 254.l. 267.a. 276.b. 277.a
 279.g. 287.b. 288.g. 311.b. 317.d. 331.b. 380.f
 384.k

The Table to the second Tome

384.k. 417.d. 419.c. 437.c. 442.l. 443.c. 470.k.
Scot to beautifie and colour the eyebrows, 324.l
Sope whose inuention, 328.l. how it is made, ib.
Sope and scouring balls consisting of salt, 417.d
Sopewort or *Filiers weed*. See *Cadicula*.
Sophocles his foolish opinion as touching *Amber*, 607.a
Sopylos, a braue painter, 551.b
Sores in face or head how to be healed, 202.b. See
Vicers.
Sorcerie condemned by *Pliny*, 273.c. See *Charmes*.
Sorel or *Souredocke*, 333.d. 73.a. the description and pro-
 perties thereof, 73.b
Sornatus, a writer in *Physicke*, 438.b
Sorites, a fruit, their medicinable vertues, 171.b
Sorie, a minervall, 509.c. 510.g. of diuers kinds which is
 best, 509.g. hurtfull to the stomacke, ib.
Sofimenes, a *Physition* and writer, 66.l
Softratus, a famous *Architect* and *Enginer* of *Guidot*,
 578.b.
Sotacius, a writer, 586.m
Sotira, an expert midwife and writer in *Physicke*, 309.c
Sow-breath, what herbe, 229.c.d. See more in *Sycla-*
minu.
Source-milke. See *Cherne-milke*.
Sow-thistle, an herbe, described, 131.b. the kinds thereof
 and the properties, 131.b.c
 S P
Spaine, a country studious in simples and herbes, 224.b
Spaine the goodliest country next to *Italie*, 632.m
Sparganium, what herbe, 228.l
Sparta, what they are, 6.g
of Sparte, 6.g. like description, ibid. appropriat to *Spaine*,
 and may be called *Spanish* broome, ibid. the uses thereof,
 6.i. k.l. the nature thereof, ib.
Spartopolis, a pretious stone, 630.m
Sparton what it significeth in *Greece*, 188.g
Sparticus forbad to haue plate of siluer or gold in his camp
 463.f.
Speed or successe how to be obtained in law suites, 627.f
inwarre, 628.g
Spasme. See *convulsion* and *Crampe*.
Spels. See *Charmes* and *Words*.
Spels. See *Zoa*.
Sperage of the garden excessive big, 11.d
Sperage wilde of the garden, and of a middle nature, 27.c.d
Cuues rule for their ordering, 27.c.f. 28.g. b. their me-
 dicinable vertues, 53.a
Sperme. See *Seed Naturall*.
Sphinx in brasse most curiously wrought by *Phidias*, 566.b
Sphinx a monstrous rooke in *Egipt*, 577.b. the description
 thereof, ib. b. c. thought to be the monument wherein king
Amasis was entombed, ib.
Sphragides, cert. in pretious stones that seale fairest, 620.b
Sphragis, what earth, 529.a
Sphyrana, a fish. See *Sudis*.
Spitchell. See *Meum*.
Spituncus, an image of *Praxiteles* his making, 500.k
Spiritus how renewed and recovered, 59.c. 130.b
Spirits made dull by some water, 403.c
Spitting observed superstitiously in auerting witch-craft,
 220.g. in preventing lameness, ibid. in turning away
 the distillature of the gods for some bold petition, ibid.

in fortifying the operations of medicines, 300.b
 in curing the party that one hath hurt, and repented
 therefore, ibid. in helping a beast swayed or bipped by a
 blow giuen, 300.i. in giuing a souldier blow to an
 enemy, ib.
Spittle conueighed backward behind the eare, what it signi-
 feth, 297.d
Spittle fasting of what vertue, 300.g. k
Spittle fasting of a woman medicinable, 308.b
Spittle of certaine men, medicinable against serpents,
 299.a.
Splanchnoptes, an image in brasse curiously wrought by
Stipax, 502.l. why so called, ibid.
Splanchnoptes, 123.c
 for the *Spleen* pained, swelled, hard, obstructed, or otherwise
 diseased, proper remedies, 39.d. 40.k. 45.c. 49.f. 51.b
 52.g. 56.b. 59.g. 61.a. 62.l. 64.f. 67.d. 73.d. 75.e
 101.b. 103.b. 104.g. 105.c. 119.d. 121.e. 122.g
 124.l. 127.c. 128.l. 130.k. 143.b. 144.b. 146.k. 150.g. i
 164.g. 167.c. 169.f. 173.d. 178.g. 180.k. 187.c
 188.b. 189.c.f. 190.i. 193.a. 196.f. 198.i. 207.d
 208.g. 216.m. 253.d. e. f. 254.g. 263.c. 274.l. 275.e
 277.c. 287.e. 288.b. 289.d. 290.i. 291.c. 313.b. 318.i
 330.b. j. k. 341.d. 352.i. 381.d. e. 424.b. 430.g. 433.e
 443.f. 444.g. 447.a. 516.f. 529.b.
Spleen, what herbe, and why so called, 217.a
Sploches sweet in the skin, how to be brought to a fresh co-
 lour, 339.a
Spodium of *Lead*, 520.g. how washed, ib.
 for *Spodium* a succedan, 158.l
Spodos what it is, 511.f. the nature of it, ibid.
Spodos of sundry sorts, 512.g. how to be washed, ibid. b. the
 vertues, ibid.
Spodos *Lawriotis*, ib.
 the best *spodos*, ib.
 what things serue in stead of *Spodos*, 512.i
Spondylium, an herbe, 181.a. the vertues thereof in *Phy-*
 sicke, ib.
Spondylium, a fish, medicinable, 446.i
Spongies in *Sperages*, what they be, 27.d
Spongites, a pretious stone, why so called, 629.d
Spots and speckles blacke in the skin, how to be taken out,
 62.i. 161.c. 266.b. 314.k. 377.d.
Spots or yron moles how to be taken out, 47.d. 161.c
Spraines of sinewes how helped, 334.m
of Springs and fountains a discourse, how to find them,
 408.i. k. l. m. 409.d. b.
Springs of waters arising upon the stocking up and cutting
 downe of woods, 410.k
Sprits salted, medicinable in some cases, 43.i. b
Spuma Argenti. See *Litharge*.
Sponge of fresh water, a kinde of herbe, 280.g. why called
Conferua, ibid. b
Sponge of male sex, 423.a. it was wont to be dyed purple,
 ibid.
Sponges of female sex, 423.b
Sponges how they are made white, ibid.
Sponges haue a sensible life, ibid.
Sponge stones what they be, 589.d. why they be called *Te-*
colithi, ibid.
Sponges used in fittions, and rebbing of mens bodies,
 424.k. whe.

of Plinies Naturall Historie

whether *Sponges* haue heaving or no, 423.c
 which *Sponges* be best, ibid.
 the generall use of all *Sponges*, 423.d. e
 they serue in stead of *Lana Succida* or unwashed grea-
 se wooll in wounds, 424.g
Sponge ashes medicinable, 424.i
Sponges commonly diuided into *Africane* and *Rhodiacke*,
 424.k.
 where the finest and most delicate *Sponges* be found, ib.
Spruge, an hearbe, 284.i. the description, ibid.
Spruges. See *Tithymales*.
Spiders venom, what remedies for it, 65.b. 187.d. 196.i
 431.f. 433.f.
 S Q
Squatina, a fish, the skin whereof is medicinable, 444.l
Squilla or *Sca* Onion, 18.l. the description & properties, ib.
 more qualities that it hath, 99.e. the sundry kinds, 18.m
 how to be ordered, 19.a
Pythagoras wrote a booke of *Squilla*, 18.m
Squilla male and female, 51.c. how to be prepared, ib. how
 to be boiled or calcined, 51.c
Squilla the lesse. See *Pancration*.
Squillitike vineger the vertues thereof, 156.l
Squinancie, a discafe of the throat, with what medicines it
 is cured, 35.l. 39.d. 42.k. 44.g. 61.c. 66.g. 75.c. 76.i
 103.c. 134.l. 135.d. 147.c. 157.b. 158.g. 172.b. 183.c. e
 195.g. 205.e. 212.l. 245.b. d. 277.d. 287.d. 301.d. e. f
 311.b. 328.k. 378.b. k. l. 419.b. 422.k. 432.i. 442.g. b
 471.c. 510.i.
Squinant rib described, with the kinds and vertues ther-
 of, 101.f. 102.g
 S T
Stachys the herbe described, 199.c. the vertue thereof, ib.
Stag, *Hind*, *Hart*, red *Deere*, enemies euery way to serpents,
 321.d. their horns, ib. skin, ib. c. rennet of a *Hind* calfe
 321.f.
genetics of a *Stag*, and his pizzle, ib. rim of the paunch
 ib. teeth, ib. their blood draweth serpents together, ibid.
Staining of clothes in *Egipt*, how it is practised, 550.c
 the commoditie of clothes so stained by seething, ibid. d
Staphis, or *Alaphis* *Agria*, what hearbe it is, 248.l
Starre fish, medicinable, 433.f
Starch flour, the properties of it, 140.l
Statere, what drinking cups or mazers they were, 482.b
Statice, what herbe, 250.b
statly Statues first when they came up at *Rome*, 482.l
Romanes honoured at *Rome* with *Statues* by strangers,
 493.d.
Statues erected for them at *Rome* who were killed in em-
 bassage or service for the state, 491.f
 the measure ordinarily of *Statues*, three foot, 492.g
Statues on foot at *Rome*, 492.l
Statues of siluer when first admitted in *Rome*, 482.m
 483.a.
 three *Statues* of *Anniball* euen in *Rome*, 493.c
Statues on horsebacke, a disuse comming from the *Greekes*,
 490.f.
 women honoured with *statues* on horsebacke, 492.l
Statues riding triumphant, or otherwise in charriots, when
 they were first seene at *Rome*, 490.m
Statues erected upon columns, are of great antiquity, 491.a
 what they signified, 492.k

Statues without any robe, 491.c
Romefull of *Statues* and images, 494.e
Statues *Thuscanica*, ibid. b
Statuifacere described, 148.l. it is not *Voa Taminia*, ibid.
 where it loneth to grow, ibid. m. the kernils dange-
 rous inwardly taken, 149.a. the medicinable ver-
 tues, ibid.
Steatites, a pretious stone, 630.b
Steatomata, what kind of wens and how cured, 265.c
Steele what it is, 514.i. diuers kinds, ibid. k
Stellie, a word odious what it importeth, 388.i
Stellions (the *Lizards*) their venomous, sightfull, and enui-
 ous nature to mankind, 388.i. most aduerso to scorpions,
 361.b. how they cast their slough or skin, 388.k. l. the
 same is medicinable, ibid. i
 the diuerse names and description of these starre-*Lizards*,
Stellions, 361.b
 against the sting and poyson of *Stellie*, remedies, 140.g
Stephanomelis, what herbe, 263.f
Stepanoplocos or *Stephanopolis*, a picture of *Glyceria*, 80.l
 made by *Pausias* the painter, who loned *Glyceria*, 546.l
Stephusa, an image of *Praxiteles* his making, 500.k. why
 so called, ibid.
Stevellus, what kind of *Litharge*, 474.k
Stergetbron, an hearbe. See *Houfleecke*.
Q. Stertinus, a famous *Physition* at *Rome*, and a great
 taker of fees, 344.k. he and his brother rich, sumptuous,
 and died wealthy, 344.l
Strian, or such like hardnesse rising in the eyelids, how to be
 cured, 324.m
Stibi or *antimonie*, 366.g
Stibium. See *Stimmi*.
Stitches in sides how to be eased, 104.b. 120.l. 121.e
 126.k. 193.a. 202.g. 516.g. See *Sides* and *Plurisie*.
Stiffe and *stark* for cold, how restored, 263.a
Stiffnesse of limbs how to be made limber & supple, 422.k
Stilo *Praconinus* his merrie scoffe upon a *Spaniards* signet
 601.c.
Stimma, a minervall, 473.d. of two kinds, ib. their descrip-
 tion, ibid. their medicinable vertues, 473.d. e. principall
 for the eyes, ib. how to be prepared, 473.f. 474.b
Stinking smell of any part of the body, how palliated, 128.b
 161.d.
Stipax, a curious imageir and his workes, 502.l
Stipendium and *Stipend*, whereof these words are derimed,
 462.l.
Stache, what herbe, 120.f
Stachas, an hearbe, where it groweth, 289.f
Stomacacum, what discafe, 110.k. See *Scelerityrbe*.
 anguish of *Stomacke* is most painfull next vnto *strangurie*,
 213.c.
Stomacke weak and feeble how to be comforted, 289.c
 383.b. 437.c. 558.k. 591.a. 624.l.
 paine of *Stomacke* how eased, 76.l. 102.k. l. 106.m. 138.m
 163.c. 172.m. 186.i. 196.b. 283.a. 312.b.
 for *Stomack* infirmities and discafes in general, appropriat
 remedies, 37.f. 38.i. 41.a. 42.k. 46.g. 47.e. 48.b. k. l. 50.i
 51.d. 52.g. 55.c. 57.c. 60.i. 63.a. 70.b. 74.g. k. 76.f
 77.c. 78.m. 102.k. l. 111.c. 119.c. 122.g. 129.a. 130.g. i
 141.f. 142.g. 147.a. b. 158.g. 161.f. 163.b. 164.i. k
 170.b. 174.k. 197.f. 200.k. m. 246.l. m. 288.i. 380.l. m
 424.g. 432.g. 609.c.

The Table to the second Tome

Stomacke exulcerat how cured,	329.d	Success against aduersary at the barre, and enemy in field,	315.d.e. 354.i. 357.b. See more in Speed.
Stomacke gnawing how to be pacified,	283.a. 329.d	Succinum Amber, why so called,	607.e
Stomatice, what composition, and the vse thereof,	164.m	Sudines, a writer,	573.e
the reason of the name,	ibid.	Sudis, a fish, 452.l. the nature of it and the description,	ibid.
Stomatice, Panchrestos, and other stomaticals, how made,	170.b. 192.b.	Swilli, what kind of Mushromes, 132.m. their deadly	ibid.
Stone Sauge, an herbe. See Sederitis.		poison,	133.a
Stone that scorneth fire,	593.d.e	Sullanders in horses,	338.l
a Stone swimming whole, sinking broken,	587.d	Sulphur-vif is naturall, 556.i. why it is called Apyron,	ibid.
a Stone swimming whole, sinking broken, in buil-	593.c.d.e	See more in Brimstone.	
ding,	593.c.d.e	Sumach of curriers,	192.g
aire of a diuers nature and constitution for building,	588.d	ibid.	ibid.b
Stone in bladder or kidneys how to be broken and expelled		Sumach of the kitchen,	ibid.
out of the body. 39.d. 54.b. 60.k. 66.i. 72.k. 73.d. 74.l.		Sun-burning how to be taken away, 161.b. 306.b. 327.e.	
76.b. 77.f. 78.g. 101.a. d. 104.b. 111.a. f. 120.i. k. 122.b.		Sun and salt singular for the gout,	419.b
125.e. 127.b. 128.l. 130.l. 143.a. 173.b. 175.b. 192.m		Suns gem, a pretious stone, why so called,	629.e
195.d. 196.k. 206.l. 254.g. i. 255.c. d. 281.b. 283.b		Superstition of Pagans in their diuine seruice, 294.l.m	
284.m. 289.x. 301.c. 313.b. 332.l.m.		their Superstitious ceremonies, obserued at their meat,	297.f.
the paine of the stone how eased, 194.b. 384.g. b. i. 402.l		as touching Superstitious ceremonies, Seruiss Sulpitius	ibid.f.
403.b. 430.g. 443.e. 444.g. b. i. 489.d. 629.f.		wrot a booke,	ibid.f.
a Stone voided out of the body medicinable,	301.c	Suppuration how to be discharged out of the breast,	200.l
Stones suspected for building, how to be prepared that they		Surbating of the feet how to be helped,	185.b
may serue,	593.e	Surfet upon fish how to be helped,	362.k
a Stone dog-bitten, causeth diffention in what house soener		ibid.	119.d
it is,	303.d	Swiffes in generall what doth resist,	ibid.
the Vulgar Stone, what vertues it hath,	285.a	Sutherland the herbe, described, 91.b.c. the vertues	ib.
Stone cutting and grauen more ancient than painting or		that it hath,	108.f
casting brasie,	565.c	the degrees in goodnesse,	S W
Storax the gum how to be chosen, 180.l. the vertues that it			
hath,	ibid.	Swallowes young that be wild, are better for Physick than	
Storax,	ibid.	other, 378.i. those called Riparia be best, ibid. how to be	ibid.
Strawberie tree. See Arbut.		calcinced,	ibid.
Strangurie counted the most painefull disease,	213.c	Swelling occasioned by windiness, how cured, 136.k. See	
for strangurie or pissing dropmeale, the remedies, 40.k. 41.d		Venositie.	
54.i. 78.g. 106.i. 111.a. d. 119.d. 127.c. 131.d. 157.f		Swellings hard how to be aliaied, 337.b. See Tu-	
179.b. 185.a. 188.b. 195.c. 199.c. 202.g. h. 216.b		mours.	
254.g. h. 255.b. 274.k. 283.b. 284.m. 290.m. 316.m		Sweat of certaine mens bodies medicinable,	199.a
356.d. 384.g. b.		Sweats how to be procured,	67.b. 103.c. 122.b. 160.f
Strangurie what causeth,	384.b	162.k. 167.a. 182.g. 187.f. 193.c. 202.b. 233.f. 284.k	
Stratotes, what beye, 204.m. the description,	205.a	290.k.	
the vertues medicinable that it hath,	ibid.	Sweats symptomaticall, diaphoreticke, stinking, and immo-	
Stratonice the Queene, wife to K. Antiochus, pictured un-		derat, how to be repressed, 58.k. 78.k. 102.m. 153.c	
seemely by Clefides,	549.e	160.i. 161.e. 174.k. 341.e. 421.f. 558.k. 560.i.	
Stratonicius, a cunning grauer, 483.c. his workemanship,		Swimming in water for what it is good,	414.g
ibid.		ibid.	399.f
Streames of riuers how to be staied,	316.b	Swine how they will follow one,	268.l
Structure in yron what they be, and why so called,	514.i	how cured of squinies,	206.b. 450.k
Strigiles of gold, what they be in Spaine,	465.e	Swine how to be cured of all their diseases,	206.b. 450.k
Striking of the head at such a day of the Moone obserued		Sword-fish his names. 428.i. his description and na-	ib.
for what purpose,	298.i	ture.	
Strombi, certaine Winkles or shell-fishes medicinable, 446.i		Swouning or fainting of the heart how to be recovered, 553	
Strongyle, what Alame, 558.l. of two sorts, and their de-		180.g. 381.b.	S Y
scription,	ibid.		
Strophia and Strophiola, what they be,	80.i	Sybaris, a riuier. 403.c. the water thereof is of wonderfull	
Strumet. See Crowfoot.		operation.	ibid.
Strumus, what herbe,	280.g	Syce, what it is.	42.l
Struthium, what herbe	10.g	Syce. See Peptos.	631.a
Strychnos, 280.g. what herbe,	112.b	Sycitis, a pretious stone.	169.e
Styx, a fountain yeelding a venomous water, 400.b. 405.a		Sycamore, what tree, and the vertues in Physicke.	169.e
S V		Sylla Dictator the richest Romane that euer was, 479.d	
Sualternicum, what it is,	606.b	Sylla Dictator honoured with a chaples of greene grass,	
Success in petitions how obtained,	314.g	117.c.d.	he

of Plinies Naturall Historie.

be signed with the image of King Ingurtha prisoner,	601.e.	Talent simply signifieth the Attick Talent, 548.k. what	ibid.
Syluer when it was first stamped into coine at Rome,	462.m.	Talent Egyptian what it weigheth,	464.i
Romanes imposed their tribute to be paid in Syluer, and	464.b	Tallow or fetter of the same nature that greace,	320.k
not in gold,	464.b	how to be ordered and prepared, ibid. which is the	ibid.
Caser Dictator furnished the solemnity of the cirque games	464.k	best,	ibid.
all with Syluer,	464.k	Tamaricus a riuier, the fountaines whereof foretell future	404.l
C. Antonius exhibited his plaies vpon a scaffold of Syluer,	ibid.	cuent,	188.k
ibid.	464.k	Tamari-x or Tamariske, a plant,	ibid.
C. Caligula set for pageants oile of Syluer,	467.b	the sundry kinds and names thereof,	ibid.
Syluer tried out of gold ore,	472.i.	Tamariske, how it is employed, 188.b. the medicinable vses	ibid.
Syluer found onely by digging pits,	472.k	thereof, ib. the antipathie between it and the spleene, ib. i	188.k
without lead or lead ore,	472.k	why called the vnlickye tree,	111.e
Syluer mines found in all places, but the best in Spaine, ibid		Tannacum, what herbe,	
dampe in Syluer mines pernicious, but to dogs especially.	473.a.	Tangle, a sea-weed, 437.e. See Reiti.	613.a
Syluer of two kinds, 478.g. how the best is knowne, ibid.		Tanos, a bastard Emeraud,	630.k
Syluer in plate painted by the Egyptians, and why, 478.l		Taos, a pretious stone,	
Syluer images enamelled blacke by what meanes, 478.m		Taperwort, an herbe. See Mullen and Longwort.	
479.a.		Taphisius, a kind of Eggle stone, 590.b. why so cal-	ibid.
Syluer for shifs worne in stead of gold, by whom,	483.a.b	led,	277.e
Syluer much used by souldiours,	ibid.b	Taphosiris, a citie in Egypt,	277.e
Syluer employed in base and vnclanelly uses,	483.b.c	Tar, what medicinable vertues it hath, 183.e. how it is	ibid.
Symbolum, what it signifieth,	455.b	made Palmipissa,	ibid.
Symmetric obserued by Lysippus the Imageur,	499.e	Taracia Caia, a benefactresse to Rome, honoured with a	492.b
Symmetric is a tearme that cannot be expressed by a Latin	ibid.	statue,	492.b
word,	175.f	Tarentum the citie had the name for making the best can-	488.l
Sympathies obserued,	35.c	dlestickie shankes of brasie,	ibid.
Sympathie in naturall things,	35.c	K. Tarquinus Priscus, by what policie he kept his people	
Symphonia, an hearb, 247.f. the description and vertues,		at worke vnder ground about his vaults and sinkes,	582.k.l
ibid.		582.k.l.	
Symphitum Petraum, an hearb, 275.d. why called Sym-		K. Tarquinus Priscus his rampiers, a wonderfull piece of	
phytum, ib. why Petraum,	174.h	worke, 582.b. the foundation of the Capitoll, and	
Synaristene,	550.b	the vaulted sinkes which he made, are admirable,	
Syngenicu, a picture,	631.a	582.b.	
Synochitis, a pretious stone and the vertue of it,	629.e	Tast in the month how to be recovered and seasoned, 148.g	
Synodontes, certaine fishes,	ibid.	183.e.	
Synodontites, a pretious stone,	59.d	Tast iudiciall of bitter and sweet, why not in all persons a-	136.b
Syratation, a writer in Physicke,	247.a	like,	419.a
Syrium or Syreion, the iuice extracted of Lillie floures,	ibid.c	Tauri flies, a kind of Beetles, 379.c. why so called, ib. they	ibid.
103.b. the vertues thereof,	247.a	be named also Pedunculi Terra,	569.b
Syron what herbe,	ibid.	Tauriscus of Tralleis, a grauer in marble,	483.e
Syropicon, a kind of Samian earth, 559.d. the vse in Phy-	ibid.	Tauriscus a cunning grauer in brasie,	550.s
sicke and how it is knowne,	629.e	Tauriscus a painter renowned for his worke,	ibid.
Syrtria, pretious stones,	ibid.	Tazil, what herbe, 239.c. the description, ibid. 280.k. the	
Systeteris, a magicall herb, and the effects thereof, 204.g		vertues,	
why so called, ibid. why named Protomedis,	7.a		
222.m. what it signifieth,			

T A

Tables at Rome twaine, all of syluer,	481.e	Teeth how they may be made white, and so kept, 644. 129.a	
Tada or Torch-wood, what vertues medicinable it	148.g	140.i. 160.i. 168.g. 326.i. 352.l.	
hath,	439.d	Teeth corrupt, hollow, worne-eaten, and stinking, by what	
Tania, a sea-fish.	ib.	meanes cured, 159.b. 168.k. 239.c. 252.b. 440.k	
Talc, or glass-stone, where it is found, 592.i. k. the na-	ib.	624.i.	
ture of it and manner of engendering,	592.l	Teeth how to be preserued from rottenesse and the worne,	
exceeding durable in all weathers,	592.l	168.g. 190.i. 419.b.	
the vse of Talc reduced into flakes and smaller pieces,	592.l.	Teeth rotten and hollow, how they may be broken and had	
		out by peece-meale,	179.c. 190.i. 239.e
		Teeth	

The Table to the second Tome

Teeth hollow and rotten, how they will fall out with ease,	138.b. 159.d. 179.e. 302.g. 376.i. k. l. 440.g.
Teeth hollow in paine how to be eased,	276.b. 440.k
ach of the grinders or great law Teeth, how to be remedied,	440.b
Teeth loose by what means they may be set fast,	38.g. h
41.e. 70.g. 72.g. 73.e. 109.e. 124.b. 156.b. m. 159.b. c.	
160.g. 164.l. 165.d. 184.b. 196.b. 197.a. 238.i. 239.b. c.	
326.i. k. l. 351.b. 377.a. 440.i.	
Telephanes, a famous Imageur and his works,	500.h. i
Telphium, an hearbe, thought to be Orpine,	290.l
the description and vertues,	ibid.
Tellicardus, a pretious stone,	629.d
Telirrhizos, a pretious stone,	ibid. e
Telmessus, a superstitious city, adducted to soothsaying and magicke,	372.l
Tempest and thunder how to be raised,	315.c
Temple of Diana in Ephesus how long a building,	580.b. i
how it was founded and scitnat, ibid. the description thereof,	ibid.
Temple of Cyricium and the description thereof,	581.a. by whom built,
ibid.	
Temple of Diana Anaitis, religious and sacred,	470.g
spoiled by Antonie the Triumvir,	ibid.
Temple of Peace built by Vespasian the Emperour, a stately piece of worke,	581.f
Temple of Fortuna Sera, built by Nero the Emperour, all of Phengites stone,	592.m
Tephria, what kind of Marble,	573.c
Tephritus, a pretious stone, 629.f, the description,	ibid.
Tepula, a water serving Rome,	585.d
Terebinth or Turpentine tree, what medicinable vertues it hath,	181.c
Terpentine rosin is the best, 182.k. good to nourish the body and make it fat,	ibid. l
Terra Sigillata or Lemnia, 529.a. it was sealed in old time, and thereupon called Sphragis, ib. the medicinable vertues thereof,	529.a
Terraces, whose invention,	596.i
for Tertian agues, what remedies are conuenient,	70.l
112.g. 122.k. 125.a. 126.k. l. 205.b. 223.d. 260.b. k.	
287.c. d. 302.b. 309.e. 310.i. 391.c. 403.b. 424.i.	
446.i.	
Testiculus Canis, an hearbe, 279.d. the description, ib.	
a double root it hath like to dog stones, ib. the different vertue and operation of these roots,	ib.
Tetbea, what fishes, 442.k. their description and vertues medicinable,	443.c. d
Tetradoron, what kind of bricke,	555.d
Tetragnathium, a kind of Phalangium or venomous spider 360.k. the manner of their pricke and the accidents ensuing thereupon,	ibid.
Tetters called Lichenies, disfiguring the face, how cured,	156.g. 173.a. 183.c. 192.k. 244.l. m. 245.a. b. 377.c. e
556.f. 557.d. 560.b.	
for other tetters, meet remedies, 36.g. 45.c. 49.e. 52.i. 56.k	
72.g. 75.b. 103.b. 124.b. 128.k. 142.l. 143.c. 144.l	
146.c. 157.e. 166.l. m. 168.k. 169.a. 172.i. 187.c	
252.b. 300.i. 413.b. 419.b.	
Tenca queene of the Elyrians, put Romane embassadours to death,	491.f
Teucer, a famous grauer,	484.g
Teucra, an hearbe, 247.b. a speciall hearbe for the liner, ib.	
Teucrion, an hearbe, why so called, 216.l. the description and vertues,	ibid. m

T H

Thalassiegle, what hearbe, 203.e. why called Potamantis, ib. the strange effects thereof,	ibid.
Thalassomeli, a syrrop, how to be made, 413.d. e. the singular vertues thereof,	ibid.
Thalietrum or Thalictrum, an hearbe, 291.a. the description and vertue,	ibid.
Thapsia, an hearbe, the root whereof is medicinable, 245.b.	
Theamides, contrary in nature to the Loadstone, and reiects yron,	587.c
Theangelis, a magicall hearbe, and the vertues thereof, 203.f.	
Theatre of M. Scaurus, a most wonderfull and sumptuous piece of worke, 583.e. with the description thereof,	ib.
Thebais salt, for what infirmities good,	419.b
Thebes a city in Egypt built hollow upon vaults, 580.b	
it had about it an hundred gates,	ibid.
Thelygonum, what hearbe, 257.d. the vertues that it hath,	268.b
Thelyphonon, what hearbe, 230.d. the description, ib. l. m	
the reason of the name,	ib.
Thelepterys, a kind of Fearn, 281.d	
Themison, a professor in Physicke, 344.i. he wrote a Treatise in praise of Plaineine,	223.b
scholler to Aesclepiades, ib. he reiects his masters Physicke, and brought in new,	344.i
Theodorus, a writer in Physicke,	52.i
Theodorus, a most curious and fine Imageur and grauer in brass, 503.a. he cast his owne image and a coach, &c. most artificially,	ibid.
Theodorus one of the Architects that built the Labyrinth in Lemnos,	579.c
Theodorus, a painter, for what pictures hee was famous,	550.h. i
Theombration, a magicall hearbe, described,	203.c
the nature thereof,	ibid.
Theomenes his opinion as touching Amber,	606.l
Theon, a painter, and his workes,	550.i
Theophrastus his opinion of Amber,	606.k
Theophrastus wrote of floures and hearbes,	82.l
Theriace, a kind of grape, 148.i. the medicinable vertues thereof,	ibid.
Theriac, what troches, 357.e. f. how they be made, ib. their use in preseruatiue antidots,	ib.
Therionarca, a magicall herbe, the strange effects thereof,	203.d
Therionarca, another herbe described,	229.c
the reason of the name, and the effects that it hath, ib.	
Thesens, a picture of Euphrasor his doing, compared with another than Parafius made,	547.d
Thesum, what hearbe,	127.e
Thesmophoria, what feast,	187.b
Thespiades the nine Muses wrought in brass by Euthicratas,	500.g
Thespiades also engrauen in marble,	570.g
Thessalia practised Magicke, whereupon Magicians were called Thessalians,	377.i
Thes-	ibid.

of Plinies Naturall Historie.

Thessalica, a comedie of Menander, detecting the vanities of Magicke,	372.m
Thesalus, a Physician,	344.l
when he flourished,	ibid.
he altered the Physicke of his predecessors,	344.m
he inuenged openly against them,	ib.
he entituled himselfe upon his tombe Iatronices,	345.a
Thendactylos, a pretious stone,	930.b
Theutalis, an herbe,	287.a
Thiatis, what moneth in Egypt,	286.g
against Thirstinesse appropriat remedies, 43.b. 51.e. 60.b. i	
67.b. 70.g. 73.a. 120.b. 129.b. 171.c. 275.e	
624.g.	
Thlasi or Thlaspe, what herbe,	291.a
of two kinds,	ibid.
their description, ib. why so called,	ibid.
Thorne Arabian, the medicinable vertues that it hath,	194.i.
Thracia, a pretious stone of three kinds,	629.f
Thracian stone soonest burneth by the meanes of water,	472.b.
Thrasillus, a writer in Physicke,	435.d
Three-leafe grasse. See Trefoile and Clauer.	
a fish bone sticking in the Throat, how to be removed, 302.l	
328.k.	
Throat swelled, how to be assuaged,	158.i
Throat sore and exulcerat, how to be healed, 418.b. 328.i	
378.g. 589.b. 609.b.	
for Throat infirmities generall remedies, 41.f. 59.e. 74.k	
120.b. 123.c. 157.b. 180.l. 245.b. 246.i. 317.a	
328.i.	
Thryallis, what herbe,	230.k
Thymba of K. Pyrrhus medicinable,	295.f
Thumbe bending downward, a signe of approbation,	297.d
Thuriannus, a famous potter,	553.a
he made the Image in the Capitoll of Iupiter in clay, ib.	
Thunderbolts do sent or smell of brimstone,	557.a
Thinscanica, what petie images,	494.g
Rome full of them,	ibid. b. i
Thyme of Attica is best, and therefore the hony from thence is chiefe,	90.k. l
ibid. k.	
Thyme of two kinds,	107.c. d
when it floureth, and how, ib.	ibid.
by it is knowne what a yere will be of hony,	90.k
the description and nature of Thyme,	107.d
the vertues,	ib.
running Thyme, 75.d. why it is called Serpyllum,	31.e. d
wild Thyme, where and how it groweth,	75.d
the properties that it hath,	ibid.
Thymbrum, what herbe, 233.e. the vertue,	ibid.
Thysellum, what herbe, 233.e. the vertue,	98.g. h
Thyestes, and their sundry kinds,	78.l
Thyestes wild of two sorts,	ibid.
Thyestes forbidden to be eaten by Roman Commoners, 11.d	

T I

Tiberius Caesar a grim sir, yet delighted in pictures, 527.f	
See Tyberius.	4.i. k
Tier of Flax,	124.i
Tikes in dogs how to be killed,	387.b. o
Tikes highly esteemed by Magicians,	ibid.
their fooleries in the use of Tikes,	419.b.
Timagoras, an antient painter,	587.d
Timon, a naturall Philosopher,	666.i
Timanthes, an excellent painter, 536.k. famous for the picture of Iphigenia in Aulides, ib. a man of fine conceit, ib.	
Timarete, a paintresse famous for her pensill, 534.g. 551.a	
her picture,	ibid.
Timomachus, a painter of good note,	548.k
his pictures,	ib.
Timotheus, a famous Imageur and cutter in stone,	568.l
rich Tinctures, which three be principall,	88.k
Tinefmus, what disease it is, 249.a. the remedies thereof,	
44.i. 49.e. 54.c. 66.i. 70.b. 72.k. 72.d. 126.g. 143.c	
172.b. 249.b. 278.l. 283.b. 318.k. 332.b. 359.c. 382.k	
413.a. 437.c. 443.d. e. 474.b. 520.i.	
Tin-glasse. See Leadwhite.	
Tin of diuers kinds,	517.c. d
sundry uses of Tin, ibid. how it is sophisticat,	ibid.
Tin Tertiarium, what it is, 517.d. the use thereof,	ib.
Tin Argentarium, what metall and how employed,	517.e
Tissie,	466.g
Tithymalos, a kind of wild Poppie,	69.c
Tithymalus, what herbe it is, 251.e. the sundry names thereof, ib. what is practised with the milkie iuice of it,	251.e. f.
Tithymall of many kinds,	ibid.
1. Tithymalos Charactis, 251.f. the description, ib.	
the iuice extracted, 252.g. the vertue,	ib.
2. Tithymalos, Myrsinites, or Caryites, 252.i. k. the reason of both names, ib. the dose thereof,	ibid.
3. Tithymalos Parafius, or Tithymalis, 252.l. the description and dose,	ibid.
4. Tithymalus Helioscopius, 252.l. the description, ib. the reason of the name, ib. m. the vertue that it hath, ib. the dose,	ibid.
5. Tithymalos Cyparissius, why so called, 253.a. the description and operation,	ibid.
6. Tithymalos Platyphyllos, 253.a. the reason of that name, ib. why it is also called Corymbites, ib. why named A-mygdalites, ib. the vertues,	ib.
7. Dendroides, Cobion, or Lepophyllon, the description and effects,	253.a. b
Titus, a man noted for being full of the soule Morphew,	403.a.
Tiwill in young children hanging forth, how to be reduced,	451.e. See Fundament.
Tlepolemus, a Physician,	67.a

T O

Toads or venomous frogs described, 434.l. why called in Latine Rubeta, ib. wonders written of them, ib. a bone in one of their sides of great efficacy, ib. and 435.a	
how to be found,	434.m
against the venome or poison of these Toads, remedies, 119.a	
223.d. 231.a. b. 232.g. 300.k. 307.c. 431.f. 434.a	
435.b. c.	
Toads flax, an herbe, 286.l. See Oshris.	
Toadstoiles, 7.f. 13.l. m. See Mushromes.	
Tongue of man medicinable, and of power to auert ill fortune,	300.m
tune,	
Tongue blistered and sore, how to be cooled & healed, 328.i	
377.a.	
Tongue furred and rough how to be mundified, 59.e. 192.i	
419.b.	
Tongue specklesse how it may be recovered,	60.k
Tongue	

The Table to the second Tome

Tongue palse how to be cured,	134.m	Tragos, an herbe, 291.d. the description,	ibid.
against an untemperat and lying Tongue, a remedy,	316.b	Transplanting cureth many diseases in herbes,	33.d
Tonots in painting, what it is,	528.b	Travellers, what wine they may drinke,	155.d
Tonils, what they are,	135.d. inflamed or sore how cured,	79.b	
183.c. 196.g. 197.d. 378.g. 437.d. 442.g. 507.f		Treacle or Theriaca, the composition thereof,	ibid.
509.e. 510.f. 607.f. See Amygdales.		it was K. Antiochus his counterpoison,	ibid.
Tooth in children how to be eased,	105.b. 341.b. c. d	another Treacle or Theriaca reponed, and the composition thereof,	348.i
376.b. 307.e. 398.g. 449.e.		Trebus Niger, a writer,	428.i
Tooth or biting of man or woman mad, is venemous,	301.a	Trees how they proove harder to be hewed, and wax drier,	176.g.
the same in some cases is medicinable,	ibid.	Treasure at Rome of gold and silver,	464.l. m. 465.a
in a fit of a Tooth one killed himselfe,	135.a	Trembling of joints, or shaking of limbs, how to bee cured,	49.d. 67.d. 141.b. 155.d. 162.b. 183.e. 219.d. 262.m
for the Toothache proper remedies,	36.g. 38.g. 40.m. 42.b	283.f. 312.i. 359.c. 431.a. 447.a.	
44.g. 45.b. 47.b. 53.d. 56.i. 57.d. 62.j. 64.f. 65.b. c		Trembling of the heart how to be cured,	48.b. 49.f. 174.i
70.g. 72.g. 73.c. 74.g. k. 102.j. 109.e. 123.a. 128.i		Tribuni arii, what they were at Rome,	455.f
149.a. 161.c. 168.k. 169.a. 171.a. 178.g. 179.e		Trichites, a kind of Allum, why so called,	538.k
180.k. 181.c. 184.g. h. l. 187.j. 190.g. 199.f. 201.f		Trich-madane. See Prick-madame.	
206.l. 238.b. k. 239.b. c. 252.j. 273.c. 274.k. 286.i		Trichomanes, what kind of Maiden-haire,	127.a
302.g. 312.g. h. 316.f. 326.i. k. l. m. 327.j. 375.e. f		Trichrus, a pretious stone,	629.e
367.g. h. i. k. l. m. 419.f. 422.g. 431.c. 432.j. 440.g. b		the description,	ib.
510.b. 557.d. 589.c.		Tricocum,	126.g
Topaze thought to be the Chrysolith, a pretious stone,	618.k	Tridachna, certain Oysters,	437.b
where it was first discovered,	ibid. k. l	Triens, a small piece of brasse coine at Rome,	463.b
it was first graced by queene Berenice,	ib.	the Triens or brasse piece of the Servily at Rome, and the	513.c. b
the image of queene Arfinoe, wife to Ptolomaeus Philadel-	ibid.	wonderfull nature thereof,	ibid.
phus, made of the Topaze,	ibid.	fed with silver or gold,	90.b
Topaze of two kinds, to wit, Prasoides, and Chrysopteros,	ibid.	Trifoile or Trifolic of three kinds,	107.b
618.m. it is filed, ib. it weareth with use,	618.l	the vertues thereof,	107.b
Topazos, an Island why so called,	206.b	supposed by Sophocles and others to bee a venemous	107.b
Tordile, what it is,	74.b	herbe,	107.c
Tordition, what it is,	431.d	not to be used but as a counterpoison,	107.c
Tortoisese line both in land and water,	ibid.	Triglites, a pretious stone,	630.i
their manifold uses,	ibid.	Tripatim, what,	554.g
Tortoisese of diuers kinds,	ibid.	Triophthalmos, a pretious stone,	630.b
land Tortoisese, their flesh, blond, &c. medicinable,	431.e	Triorches, what herbe,	221.b
their urine also is effectfull in Physicke, according to	432.g	Triorchis the Hawke defendeth the herbe Centaury Tri-	221.c
the Magi,	432.g	orches,	221.c
Sea-Tortoisese medicinable,	432.b. 438.g	Tripoli or Goldsmiths earth,	530.l
their blond,	132.i	how it is coloured, and which is best,	ibid. l. m
their gall,	ib.	Tripolium, what herbe,	247.e
more Tortoisese, described, with their properties,	432.d	the description,	ibid.
ruiner Tortoisese, and their vertues,	432.m	the vertues,	ibid.
Tortoisese how to be dressed to cure the quartane	433.b	Tritiannum, what kind of Colewort,	26.i
agüe,	433.b	Triticum, the Wheat, whereto it serueth in Physicke,	138.g.
433.a. how to be let blond artificially,	ibid.	Tritum, a kind of painters colour,	435.a
a Tortoise foot in a ship hindered her course,	ib. e	the Price,	ibid.
Tortoisese are medicinable,	451.b	Triumphall Coroners,	115.f
they be fishes serving for roiet and wantonnesse,	482.g	Triumphall captaines, why they rode painted with Ver-	475.c
Tortoise-work when used at Rome,	ibid.	million,	119.a
Touchstone, 477.f. where it is found,	472.g	Trochiskes of Eluterium, for what they are good,	36.g.
how to be chosen and used,	ib.	Trochiskes of Poppie, in what cases used,	68.g
Tow of flax, what it is, 441.b. how employed,	119.a	Trochches of Cyclamine, whereto employed,	234.b
Toxica be poisons what remedies against them,	150.m. 177.d. 180.b. 323.d. 355.c. 364.b.	Trochiskes of Scammonie,	151.c
Toxicon, a kind of Ladanium,	249.d	Trochiskes Theriaci,	357.c
		Traxen, a territory, wherein the people be subiect to the	403.b
		gout, and the reason why,	424.l
		Trogu, a writer,	461.a
		Troisuli at Rome who they were,	ibid.
		why the horsemen were so called,	ibid.
			Trich-

of Plinies Natural Historie

Trychnos, an herbe. See Strychnos.		Valerian, an herbe. See Setwall.	115.e
Tryxalis, a kind of Insect, and the vertue thereof in Phy-	381.b	Wallare chaplets what they were,	302. per
sicke,		Vanitie of Magicians reckened up and derided,	310.b
		totam page,	42.k
		Varro, a writer in Physicke.	
			V E
Tuccia, the Nun or vestall votarie, put to prone her virgi-	295.b.	Veientana, a pretious stone,	630.g
nitie, 295.a.		Veines swelling called Varices, how to be eased,	120.k
		123.e. 164.g. 257.e. 279.b. 334.l. 385.e.	
Tullus Hostilius K. of Rome killed with lightning, and	295.c. d	Veine broken by overstraining the voice or sides, how to bee	264.g
wherefore		kyit againe.	402.d
for hard Tumors and swelling bunches, appropriat reme-	37.a. 44.k. 45.c. 64.b. 65.c. 66.l. 73.a. 77.f. 105.d	Velinus, a lake medicinable,	316.a
dies, 108.g. 110.i. 111.a. 122.k. 123.c. 135.d. 136.k		against the danger of venemous arrowes,	316.a
138.k. 141.c. 142.g. 146.i. l. 159.a. 160.l. 160.m		against the pricke and poison of venemous beasts remedies,	413.f. 42.m. 43.e. 55.c. 57.a. 69.f. 113.g. 118.m. 127.f
166.i. 168.k. 174.i. 178.b. 181.b. 185.d. 186.i		134.i. 155.f. 157.g. 173.a. 187.d. 231.f. 434.g	
189.c. 193.d. 195.e. 218.k. 223.e. 236.f. 245.e		435.c.	
250.c. 262.i. 337.b. 349.f. 392.b. 531.c. 448.g		Venison, how the Frenchman make more tender,	210.g
475.a.		Ventosties in stomacke, bellie, or elsewhere by what meanes	46.g. 50.g. l. 53.a. 55.b. 57.c. 61.b. d. 62.i
how such hard Tumors or scbirrosities may be evaporated	139.f. 412.l. 419.f. 424.i. 560.b	discussed,	63.a. 66.b. i. m. 67.c. 77.b. 102.g. 105.f. 106.f. 107.f
and dissolved,	588.m.	108.m. 119.c. 121.c. 125.g. 129.f. 143.g. 153.c. 154.g.	
		160.l. 186.i. 187.g. 195.c. 196.l. 219.g. 237.a. 250.l	
		253.c. 259.c. 277.a. b. 289.d. 290.k. 332.g. 359.c	
		363.c. 383.b. c. 422.l. 431.a. 443.a. c.	
		Venus-haire, a pretious stone, blacke, and shining withall,	629.f.
		Venus of Apelles, i. the grace of his pictures, which the	563.f
		Greekes call Chæris,	ibid.
		Venus Palatina, who was called,	ibid.
		Venus, i. lone affection, how to be abated, 435.f. how to be	450.b
		forgotten for ever	
		Venus-Nauill, an herbe. See Vmbilicum veneris.	
		Venus, for lust to the aile of generation, by what meanes in-	38.l. 40.g. 43.b. d. 44.j. m. 52.k. 53.b. c. 55.d
		cited,	56.g. 67.b. 72.i. 105.a. 126.f. 128.k. 129.c. 130.g
		131.a. 144.k. 181.c. 189.a. 191.d. 200.g. 226.f.	
		256.f. 247.a. b. c. d. 279.d. 310.m. 312.l. 316.i. 341.e. f	
		342.g. 359.a. 398.j. 399.a. b. 432.g. 435.a. 450.g. b	
		by what meanes repressed,	53.d. 56.g. 70.i. 113.d
		187.a. b. d. 189.a. 257.a. b. d. 279.d. 316.k. l. m. 341.b	
		342.g. 398.l. m. 399.a. f. 404.b. 432.g. 435.a. 450.g. b	
		518.l.	
		condemned by Democritus, and wherefore,	304.l
		it helpeth some infirmities,	301.e
		moderately used it is wholesome,	304.f
		Venus, an Image in Marble knowne by the name of A-	
		phrodite is knowne at Athens, whose workmanship it	563.d
		was,	ibid.
		Venus, an Image wrought by Agoracritus, 565.c. by what	
		occasion called Nemeis,	ibid.
		Venus of Guidos naked, wrought in marble by Praxiteles,	566.i.
		an admirable piece of worke,	566.i.
		enamoured on her,	566.k
		Venus vailed by him also made,	567.e
		Venus naked wrought by Scopas,	218.g
		Veratrum, what herbe,	
		Verbasum, an herbe. See Longwort.	
		Verbena, what they were,	115.d
		Verbenarius, what officer at Rome he was,	528.i
		Vord de Azur, a painters rich colour,	ibid.
		why called Armenius Lapu, 531.c. the price,	ibid.
			the

The Table to the second Tome

the use in Physicke,	ibid.	Calathian Violets,	ibid.
Ver de gris, what it is, 507.e. 508.g.	Achilles first used	the medicinale vertues of Violets,	103.e
it in a cure,	216.i	Violet flowers best dried,	104.g
Verd de Terre, a painters colour, 528.i.	See Barax.	Vipers venome, by what medicines it is killed,	64.b. 125.b
Veruice of grapes, 146.g.	the medicinale vertues,	173.a. 357.d.	they yeeld remedies for their owne
146.m.		sings.	357.d
Vermillion the best is sophisticated with a second kind,	ibid.	Vipers how to be prepared for meat at the table, and to pre-	367.a
476.h. with Scyricum,	476.m	serue eye-sight,	ib.
which is the best Vermillion, and how knowne,	477.a.	decoction of Vipers, for what it is medicinale,	589.e
	454.g	Virginitie or the contrary, what doth shew and bewray,	408.h
Vermillion a minerall,	477.b	Virgo a water serving Rome,	ibid.
workemen about Vermillion, are masked, and why,	475.f. and	why so called,	462.g
in great account among the Romanes,	475.e	Viria, what ornaments they are,	ibid.
where the best Vermillion is,	477.c	why called Ceticia,	462.g
used in limming bookes and sepulchres,	475.e	Viriole, what ornaments they be,	ibid.
what it is and how prepared,	477.a	why called Ceticiberica,	ibid.
the lustre of Vermillion hurt by Sun and Moone,	ibid.b	Visage in some countries painted with the juice of certaine	114.l
how that may be prevented,	476.b. 477.e	herbes,	351.e
Vermillion, a ranke poison, taken inwardly,	476.i	Visage how to be preserved from Sunne burning,	65.e. 101.b
where the best Vermillion is,	528.i	Visage and countenance how it may be preserved youthfull,	ibid.
Vermillion reckoned for a rich and lively colour,	476.k	Visage how to be cleansed from speckes, scales, freckles, red	75.b. 94.k. 103.d
Vermillion how carefully it is looked unto, and sent sealed	32.k	pimples, and such like blemishes,	107.f. 108.b. 127.c. 130.f. 141.b. 145.b. 149.e. 161.b
from Sissipone to Rome,	42.k	185.e. 186.l. 187.a. 197.d. 290.f. 308.g. 310.k. 314.k	
Vermine, as ants, Cankerwormes, and such, how to be dri-	328.g. 351.e	how it may be made to shew fresh, fair, and lovely,	171.d
uen out of a garden,	341.e	Utellus the Emperor his monstrous charger or platter of	554.b
against all such Vermine and wormes,	487.d	carth, 554.b. his excessse and vanitie that way, noted by	ibid.
Verres proscribed by Antonie the Triumvir for his fane	296.b	Mutianus,	554.b
Corinthian vessell,	126.b	Utex, what tree, and the vertues thereof, 187.a. why cal-	ibid.b
Verrus Flaccus, a Roman writer of Chronicle,	489.b	led Agnos or Chast-tree,	ibid.
466.g.	428.l	Utrioll naturall, a minerall, 530.i. the wonderfull nature	511.a
Verrucaria, an herbe, why so called,	112.l	of it, 510.l. how engendered, 510.l. 511.a. of two	536.i
Vervaine, an herbe, 228.g. the sundry names that it hath,	ibid.	kinds, and how engendered,	511.d
ibid. much esteemed among the Romanes,	ibid.	Utrioll so asringent, that it will bind Beares and Lions	511.d
the diuers kinds, ibid. the vanity of the Druides and	ibid.k.	month like a muzzle,	511.d
Magi about this herbe,	ibid.	Utrioll or blacke, a painters colour artificiall,	511.a
Vessell in the kitchen of silver, by Calvus the Orator his	489.b	Utrioll Stalagmus, what it is, and why so called,	ibid.
daire,	428.l	Utrioll Lencion,	ibid.
Vestates chappell at Rome covered with brasse,	428.l	the best Cyprian Utrioll, the medicinale vertues of it,	511.b
Veterum Delubrum, a temple,	428.l		
Vetonia, an herbe. See Betonie.			

V I

V L

of Plinies Naturall Historie.

159.a. 161.f. 162.g. 165.d. 167.f. 171.e. 179.d	141.b. d. 204.l. 256.f. 442.b. 518.m. 521.a.
183.c. 191.d. 193.d. 198.f. 264.i. k. 165.a. b. d. 278.b	Voice helped by some waters,
279.e. 282.b. 283.b. 287.e. 338.b. 447.f. 448.g. 470.k	what hurteth the Voice,
471.e. 510.k. 512.b. 588.g.	straining and exercising the Voice maketh for health,
Vlers rheumaticke, and in moist parts how to be dried and	303.d.
healed, 69.e. 123.c. 143.f. 146.m. 147.b. 155.f. 174.l	Volua, what it is,
184.g. 197.d. 265.g. 311.e. 422.j. 423.e. 441.b. 528.m	Vomits what medicines do stay, 37.c. 41.b. 47.c. 52.g. 55.e
531.e.	59.e. 60.k. 62.b. 66.f. 70.b. 75.e. 76.a. 105.f. 140.g
Vlers old and long festered, by what means cured, 129.a	146.l. 156.m. 164.i. 174.k. 206.l. 219.b. 248.h. 274.g
138.k. 139.a. 220.g. 264.k. 265.b. 279.c. 350.e. 450.i	275.b.
588.g.	Vomit by what means it may be provoked, 37.c. 40.g. 67.a
Vlers Cacoethe, mortals, and untoward to be healed, by what	71.c. 105.d. 121.e. 128.h. 136.i. 173.b. 173.g. 204.m
means cured, 140.g. 174.b. 177.c. 190.b. 264.k	218.l. 248.g. 252.a. k. 253.c. 289.b. 291.b. 413.e. 444.2.b
265.c. 281.f. 287.d. 338.k. 394.i. 449.b. 588.g.	471.e. 507.a. 511.b.
Vlers desperat what medicines heale,	aptnesse to beane, cast, and vomit, how to be helped, 148.b
Vlers breeding vermin, how to be cleansed, 265.a. d. 393.e	253.c. 155.d. 181.c. 184.b. 198.a. 219.c. 224.h. 277.a
447.f.	287.c. 303.d. 305.c. 312.b. 352.l.
hollow Vlers and fistulae how to be incarnat, 123.d. 124.l	Vomiting was taught by dogs,
140.l. 178.i. 261.a. 338.b. i. 393.d.	Vomits bitter how to be altered,
Vlers cancrum, how to be cured,	Vomits ordinary, in cure of diseases, condemned worthily by
Vlers in the head and privie parts, what means to heale,	Asclepiades,
591.d.	Vomit now and then is healthfull, but not usually,
Vlers in gristly parts what doth cure,	Vomiting at sea for what it is good,
Vlers occasioned by edged weapons, how healed,	Vomiting of blood out of the stomacke, how to be cured,
Vlers superficially healed, how to be opened againe, and so	329.d. See Blood casting and Reaching.
kept,	Vowels in the proper name of persons, significant for their
Vlers in bodies of children and old folke, what medecins do	fortune, according to Pythagoras,
heale,	303.b
Vlers in skins and legs, what appropriat medecines they re-	303.b
quire,	338.b
Vlers mortified, and growne to a gangrene, how to be reco-	338.b
vered,	143.e. 265.d. 338.i
in Vlers the exercise of proud flesh, how to be consumed	and taken away, 393.d. e. 419.e. 441.b. 509.e. 510.k
511.c. 519.d. 588.g.	511.c. 519.d. 588.g.
tumors incident unto Vlers how to be assuaged, 393.e	tumors incident unto Vlers how to be assuaged, 393.e
callosities in Vlers, how to be helped,	393.c. 394.g. i
rouses and eckares about Vlers, what doth rid away.	393.c. 394.g. i
394.i.	394.i.
for all Vlers in generall, good medicines, 393.f. 394.b	393.f. 394.b
418.i. 440.d. 443.e. 559.b.	418.i. 440.d. 443.e. 559.b.
Vlex, a shrub, receiving gold from the cloven mountaines,	Vlex, a shrub, receiving gold from the cloven mountaines,
when they are scoured and washed with a current for	when they are scoured and washed with a current for
the ore, 469.a. how to be ordered for the trying of gold	the ore, 469.a. how to be ordered for the trying of gold
out of it,	469.b
Vlophonon, one of the kinds of the herbe Chamaleon, why so	Vlophonon, one of the kinds of the herbe Chamaleon, why so
called,	124.i
Vpicum a kind of Garlick,	21.c
Vmbilicus veneris, what herbe, 237.b. the description, ib.	Vmbilicus veneris, what herbe, 237.b. the description, ib.
why called Cordelon,	ibid.
Vmbrian earth or chalk, for what it is good,	560.k
Vncomes or dangerous felons, how brought to an head,	Vncomes or dangerous felons, how brought to an head,
422.b. how broken, ib. how cured,	188.m. 300.b
Vnction or anointing of the body, maketh for health,	Vnction or anointing of the body, maketh for health,
303.d	303.d
Vnguis in a Rose flower, what it is,	102.h
Vnguis, what it is,	455.d
Voice, by what medicines it is cleared and strengthened,	Voice, by what medicines it is cleared and strengthened,
433.b. d. 441.b. 59.e. 64.f. 70.g. 120.b. 134.k	433.b. d. 441.b. 59.e. 64.f. 70.g. 120.b. 134.k

V O

P p p +

The Table to the second Tome

of Plinies Naturall Historie

249.c. 250.g. 254.b. 255.a.d. 263.d. 271.d. 273.b	how and when gardens are to be watered,	58.c
277.a. 286.l. 288.b. 290.b. 362.f.	Waters brackish how to be made fresh and sweet,	176.i
stopping of Urine and difficultie in making water, how to be cured, 143.g. 147.a. 175.b. 181.e.f. 201.f. 206.l	drinke of Water how it nourisheth,	152.g
254.b. 232.f. 333.c. 384.k. 5591.a. 609.a.	offence by unwholesome waters how to be helped,	60.l
incontinencie of Urine in such as cannot lie drie, nor hold their water how cured,	Waters running how to be divided, that the same may bee seene bare,	316.b
333.b.e. a charm thereto belonging,	Water how to be laden out of pits, where it commeth upon the pionsers,	469.a
445.a.	good Waters from bad, how travellers may discern and know,	414.g
Urine smelling strong how to be rectified,	Waters change their colour at certaine times,	411.c
Urine hot and scalding how to be delaid,	Waters when heaviest,	ib.
Urine of mankind medicinable,	Water maintained and cherished by plunging of the ground,	410.l
in delivrie of Urine, or making water, the Magicians were very ceremonious, 306.m. it was forbidden against the Sunne and Moone, ibid. upon the shadow of any person,	Water creatures are medicinable,	400.l
Urbum defect or imperfection of the earth,	Waters, some cold in the Spring others in the Dogge dates,	409.e.f.
V S	Water a powerfull element,	400.l.m. 401.a.b
Vitars at Rome fined,	Water suspected, how it may be altered and made good,	407.c.
V V	of well Waters or pit waters,	407.c
Vicia Tamiata what plant,	Waters where they be exceeding hot actually,	404.b
Vicia, their parts medicinable,	Waters deadly,	405.a.b
Vicia, their parts swollen or fallen, how to be helped and cured,	Water faire to sight, yet hurtfull both to man and beast,	405.b.
51.b. 59.e. 64.k. 67.c. 70.k. 74.g. 120.c. 122.b	Waters growing to a stonie substance,	405.b.c.d
114.k. 135.c. 155.a. 159.a. 170.b. 173.e.f. 177.f	Water cold what operation it hath,	407.f
185.a. 196.f. 197.a. 301.e. 305.b. 378.g. 419.b. 437.c	Waters of a corrosive and fretting qualitie,	405.c
509.g. 513.c. 559.c.	Water how it may be made most cold actually,	407.d.e
W A	standing Waters condemned,	405.f
W Ay-bread, an herbe. See Plantaine.	a discourse, what Water is best,	406.g
Wake-Robin, an herbe, 19.b. the description and nature, ibid. it differeth from Dragons, 200.b highly commended by the Greekes for the medicinable vertues,	Waters which are knowne to be cold,	ibid.m
Wals of sundry makings,	Waters which are to be rectified,	406.g. 407.a
Wals of houses in Rome of what thicknesse they were allowed,	Waters salt and brackish, how they may be soone made potable,	407.a
556.g	Water ought to have no taste at all,	ib.b
Wals how stones should be laid and conched,	Water best, which commeth nearest to the nature of aire,	407.b.
594.g	Waters not to be tried by the balance,	407.c
Walking in exercise that maketh for the health of the body	how the triall is to be taken,	ibid.
303.d.	Watery humors what medicines purge downward out of the body,	108.g. 110.g. 130.f. 149.b. 174.g. 181.c
Wal-like what killeth, 282.g. 356.k. they are thought to be medicinable in many respects,	182.g. 185.c. 186.g. 190.g. 252.g. 253.a. 281.b. 284.a. 442.f.	96.g
356.g.b	Wax how it is made,	56.b
Walnut oyle what vertue it hath,	Wax Punica the best,	ib.
Walnuts, whereupon they took their name in Greeke, 172.g their hurtfull properties, ibid. their medicinable vertues,	Wax of Pontica,	ibid.
172.b	Wax of Canadie,	ibid.
Walnuts good to be eaten after Onions,	Wax of Corsica,	ibid.
176.g	the white wax Punica how it is wrought, ib.	best for medicines,
Walnut tree, an enemy to the Oke,	how wax may be made blacke, ib. how it may be coloured,	ibid.
Walwort, an herbe described, 276.g. appropriate for the inward and secret maladies of women,	ibid.	ibid.
ib.	how wax may be brought to any colour,	96.k
what medicinable vertues it hath besides, 185.e. 230.i	the uses of wax,	137.a.b
261.a	the properties of Wax,	ib.i
Walwort, an herbe. See Thysellum.	Wax contrary in nature to milke,	ib.
Water-Specke, what herbe, 250.g. the description and vertues,	W E	
ib.	Wearie upon travel or otherwise how to be refreshed, 62.m	66.f. 121.e. 160.k. 161.e. 173.d.e. 180.k. 187.c. 289.b
a figne Water spring in Germanie dangerous to drinke,	319.d. 400.g. 419.e. 422.a. 424.b. how to be beprevented,	266.i
112.k.	11.d.e	ib.
Waters distinguished by degrees of persons,	33.b.c	
Water which is best for gardens,		

Weazils armed with rue against they should fight with serpents,	56.m
Weazils how they are brought together from far,	316.g
Weazils of two kinds,	533.e
Weazils Brides, their gall is both a poyson and also a counterpoyson,	ibid.
Weazils flesh medicinable,	ibid.
Weazils wild be venomous,	363.e
what remedy therefore,	ibid.
Wens called Ceria, by what means cured,	37.c. 167.a
168.k.	
Wens named Melicerides, how to be cured,	73.d. 107.a
Wens Strumata, how cured,	265.c
Wens, what meares to take away and cause to fall off,	55.d
58.b. 105.d. 108.g. 125.h. 127.g. 142.m. 146.i	
166.l. 168.b. 185.b. 198.m. 218.k. 266.b. 280.l	
302.k. 307.b. 335.a. 370.k. 386.l.m. 414.b. 448.b	
470.k.	
Werts beginning to breed, how repressed,	418.m
Werts what dish cure,	75.c
Wetland, appropriate remedies therefore,	167.c
See Throat.	
against the enmie of the Wests sting, 40.b. 56.m. 63.f. 71.c	
106.k. 153.b. 166.l. 173.b. 361.d. 418.m.	
W H	
Whales and such other fishes fat, how employed by merchants,	427.c
Whales angry, small pocks, and such like eruptions, how to be cured,	46.k. 70.g. 140.l. 161.c. 173.f. 174.k
178.g. 183.b. 187.c. 219.f. 317.d. 320.b. 337.a. 421.c	
443.b. 437.d. 558.i. 559.b. 589.b.	
Wheezing in the chest, how helped,	134.l. 154.g
Whey of cows milke for what medicinable,	318.i
Whelpes or young puppies suckling, were thought fine meat at Rome,	355.b
they served there for an expiatory sacrifice,	ib.
they made a dish of meat at their solemn feasts,	355.c
Whetstones of sundry kinds,	555.a
which be used with water, & which with oyle,	593.a.b
Spanish White. See Ceruse burnt.	
Spanish White, or Ceruse naturall,	529.c
Whites in women, how repressed, 516.b. See more in V Women.	
Whiteflaws about the nailes how to be healed, 75.c. 105.d	
141.a. 147.b. 158.k. 160.g. 174.l. 177.f. 272.k. 300.l	
516.b.	
Whiteflaws,	588.i
Wild-fires and such like fretting humors, how to be extinguished,	72.g. 75.b. 106.i. 124.b. 146.k. 157.c. 265.d
287.b. 529.b.	
Wildings or crab-apples and their nature,	164.i
Wild-vine called Ampelos Agria, described, 149.b. 276.b	
the vertues,	ibid.
Wild-vine Labrusca,	149.b
Wild-vine Ampeloleuce,	149.c
the root hath many vertues,	149.d
herbe Willow. See Lismachia.	
Willow or Withe, what medicinable vertues it hath,	186.l
186.l	
Willow yeeldeth a juice of three kinds,	403.a
Wine of Bacchus, what,	ib.
Wines how they may be soone refined and made readie to draw,	176.i
See more in V Vine.	
for to cleanse and discharge the Windpipes being swelled, appropriate remedies, 133.c. 148.k. 194.g. 277.b. 329.e	
Windpipes enflamed and excoriated, how to be cured,	140.l
328.i.	
for all infirmities of the Windpipes, convenient remedies,	122.g. 134.k. 138.m. 170.b. 289.c.
how a horse will prone broken Winded,	342.b.i
broken Wind in horses, how to be helped,	246.b
holding of the Wind in what cases good,	305.a
shortnes of Wind, by what medicines it may be helped,	37.a
39.c. 44.g. 52.g. 56.b. 57.d. 58.b. 61.b. 65.c. 70.g. 73.a	
104.b. 105.d. 107.c. 109.a. 127.c. 144.f. 150.g. 153.g	
162.g. 164.g. 167.c. 173.b. 180.g. 183.f. 192.l	
193.a. 200.g. 201.f. 247.a. b. d. 248.b. 263.d. 274.g	
289.d. 329.c. 359.c. 381.a. 422.k. 432.i. 442.b. 521.a	
556.m. 557.d.	
what mouth to breake Wind upward,	237.a. 253.e
277.b. 290.k.	
Winter-cherrie, why called Veriscaria,	112.b
the description thereof,	ibid.
Wizards, prophets, and Physicians, put downe by Tiberius Caesar,	374.g
Wit helped by some water,	403.e
benefit of Wit, how to be cured,	521.260.l. 306.k.l
Withwind, an herbe, and the floure thereof, described,	84.l
Withie. See Willow.	
Witchcraft condemned by Pliny,	213.c
Witchcraft and enchantments forbidden expressly by the lawes, at Rome,	196.b
Witchcraft and sorcerie avail not, nor be of force, where no regard is made thereof,	296.g
against the practise of Witches, good preservatives,	108.m
300.g.	
W O	
Wood, an herb, the properties medicinable that it hath, 45.c	
bodies of men or women painted or died therewith in old time,	114.l
Wooll reverently regarded among the ancient Romanes,	349.c
the side posts of the bridegrooms doore bedecked with wooll by the bride on the wedding day,	349.c
the use of Woolle	ibid. 351.b
Woolle unwashed, medicinable.	351.k
Woolle of a sheep greasie, is medicinable	350.g. b. i
Woolle unwashed and greasie, doth mollifie,	424.g
Woolle greasie of a ram is effectual in Physicke,	350.b
Woolle of the necke is best,	ibid.
from what countries,	ibid.
Woolle greasie, how to be ordered for use in Physicke, 350.a. k	
how it is calcined,	350.k
the ashes thereof is medicinable,	ibid.
fleece Woolle washed, and the use thereof,	351.b
Woolle-beards or Caterpillers called Multipeda, described,	369.c.
369.c.	
Wolues snout why it is set usually upon the gates of country houses,	323.a
Wolues dung medicinable,	324.k
the bones found in their dung likewise,	332.i
the strange operations of the Wolfe, and parts of the body,	323.a
323.a	

The Table to the second Tome

Wolues, how they may be kept out of a territorie,	342.l	gours delighted to expresse in brasse,	503.e, f. 504.i
Wolues greace much esteemed in old time,	320.k	Womens exesse and prodigall wast of gold in Plinies time,	462.g, h, i, & c.
the bride therewith striked the dore sides of her husbands house,	ibid.	Women excellent paintresses,	551.a
Wolues, i. fores, how to be cured,	149.d. 300.m. 265.d	Wood-cvill in sheepe, how to be helped,	218.k
See more in Vicers cancerous and eating deepe.		Wood-foure or wood-forrell, an herbe. See Oxys.	
Wombe. See Bellie and Guts.		Woodbind, an herbe, 288.g. the description	ib.
Women with child longing and having a depraved appetite,		the vertues,	ibid. b
how to be helped of that infirmite,	155.d. 277.a	Words pronounced in charms or spells, whether they should	296.l
307.f. 164.i, f.		be strange or familiar,	296.l
Womens breasts aking, how to be assuaged,	340.g	whether Words barely uttered anail not in curing diseases or no,	294.k
Womens breasts or paps enflamed, swollen, hard, sore, and		a set forme of Words in praier, innocations, and exorcisms,	294.k
impotumat, by what means cured,	167.d. 143.b	held to be materiall in many respects,	294.k
148.i, 182.b. 183.e. 266.k. 279.c. 307.d. 320.g.		Worms of diners sorts medicinable,	393.f
issue of blond out of Womens breast heads, how to be stanched,	263.f	Worms in the bellie how to be killed and chased out,	39.e
Womens breasts over big, how to be brought downe,	340.g	41.e. 44.f. 45.f. 47.a. 71.e. 55.e. 56.b. 59.c. 60.b. 70.i	
haire springing about their breast nipples, how to be rid away,	268.i	105.b. 108.g. 112.g. 124.g. 126.i. 143.c. 160.k. 165.b	
for all infirmities of Womens breast in generall, convenient		166.g. 170.g. 172.i. 179.e. 190.g. 192.g. 249.b	
remedies,	70.g. 72.b. m. 104.b. 108.b. 138.m. 142.g	250.b. 253.c. 277.a. f. 281.c. 332.b. 419.c. 443.d	
Womens purgations upon their new delivrance, how to be		511.b.	
procured and helped forward,	59.b. 63.e. 65.a. d. 340.g	Wormewood, an herbe, 276.i, the sundry kinds,	ibid.
Womens infirmities of the matrice in generall, how to be remedied,	266.i, k. 276.b. 290.k	Santonium, why so called,	ibid.
Womens infirmities following child-birth, how to be cured,		Ponticum, why so named,	ibid.
Womens flux of whites or reds, immoderat, how by what		Scripium, why so named,	277.e
means staied,	39.a. 59.d. 102.k. 110.i, k. 130.b. 267.g	in Pontus, the sheepe feed fat with wormewood,	276.i
340.f. 396.g. 516.i. 529.b.		Wormewood not so common, but it is as wholesome,	276.i
Women with child, their swarms and faintings, how to be		Wormewood, why it was given in drinke to the winners at	
helped,	146.k	the charriot running,	276.k
Women how they may preserve the skin of their faces, faire,		Wormewood wine,	ibid.
149.b. 276.b. 286.l.		Wormewood drinke, how it is made by way of decoction,	277.a
Women by what means they shall looke young, faire, and		ib. the vertue thereof,	277.a
full, without speckles and wrinkles,	440.m. 559.f	the infusion of Wormewood,	276.l
Women who cannot deliver their urine but dropmeale and		the inice of wormewood by way of expression,	ibid.
with difficultie, how to be cured,	395.d	a syrrop of wormewood made of the inice,	276.m
how a Woman shall forme and bring forth a boy child,		hurfull to stomacke and head,	277.a
395.d.		the manifold vertues of the ordinary drinke or decoction of	
Women how they may keepe their skin supple and soft,		Wormewood,	277.a
319.e.		how it was given for apurgative,	277.b
Women by what means they may cleanse the skin of their		Wormewood Scripium, called likewise See-wormewood,	
face from morpheu,	149.b. 276.b. 286.l	277.f. the description, ib. an enemy to the stomacke, ib.	ibid.
Women become soone barraine by hard tranaille in child-		it lesseth the belly,	ibid.
birth,	340.k	decoction of Wormewood, how to be made,	278.g
how a Woman may haue speedie delivrance of child birth,		Wounds in the head how to be healed,	183.a. 192.i. 233.d
395.d.e.		301.b. 307.c. 365.e. 412.m.	
what comforteth a Womans backe and loines in labour,		Wounds flesh made, how to be kept from inflammation,	
395.e.		423.e. how from swelling,	338.k
Women having an inordinat itch in their secret parts, how		symptoms following upon Wounds, how cured,	72.l
to be eased,	396.i	paine or Wounds and their smart what assuageth,	302.k
having ulcers and untoward sores in their privities, by		Wounds how to be cleansed,	471.e. 511.c
what means to be cured,	449.b	Wounds bleeding excessively, stanchd with a charme by	
Womens bodies yeeld medicines,	307.a	Phyxes	297.m
a Womans haire-lace or fillet, what it is good for,	308.b	Wound-falnes or vulnerarie medecins,	160.l. 182.l
Womens in time of their monthly sicknesse worke wonders,	308.j.	Wounds more angry by the preface of those that have been	
Womens lazie fevers, how to be cured,	74.l	stung by serpents, or bitten by mad dogs,	299.b
Womens more skilfull in witchcraft, and fitter instruments		Wounds-greene, by what means healed,	38.b. 43.b. 45.b
therefore, than men,	210.k	49.a. 50.i. 52.i. 63.b. 68.b. 70.k. 73.a. 103.b. d. 104.i	
Women and ancient matrons at their deuotions, what Ima-		111.i. 146.k. 159.d. 163.b. 169.f. 177.e. 178.b. 185.e. d.	
		193.b. 194.b. 197.b. 253.e. 263.g. 264.f. 265.b. c. 266.g	
		272.i. 277.d. 283.e. 289.c. 290.k. l. 305.e. 338.g	
		350.g. i. 370.i. 393.f. 394.g. b. i. 403.b. 404.g. 418.i	
		516.i. 557.e.	

Wounds

of Plinies Naturall Historie.

Wounds made by sword or edge weapon, what healing me-		what persons may drinke VVyne,	155.a
decines they require,	338.k	the drinking of wyne hindreth the growth of certain beasts,	
Wounds occasioned by the whip or scourge, together with		as apes, &c.	153.d
the wales of their lashes remaining after, blacke, & blew,		Wyne of Campaine, for gentlemen tables,	153.d
how to be healed.	394.k	mixing, bruing, and medecining wynes unwholesome,	153.e
Wound-bearbes and great healers,	201.e. 202.g. 204.m	Wyne prepared with pitch alone,	154.g
205.g. 215.a. 264.h. 272.i. 273.d. 274.g. 275.f.		Wyne Picatum, what it is,	154.h
W R		whether Wyne may be given to a patient in an ague or no,	154.b.
Wrath and rigour of pimples, how to be appeased,	357.b	whether women in childbed may drinke Wyne,	154.i
359.b.		who are forbidden and in what cases to drinke Wyne,	154.i
Wrestlers and champions, what imageurs delighted to re-			
present in brasse,	503.e. f. 504.g		
Wrings in the bellie and guts, how to be appeased,	40.b		
49.b. 57.d. 67.c. 75.c. 119.c. 128.m. 155.d. 160.k			
165.b. 171.c. 173.f. 186.k. 188.i. 190.b. 193.c			
195.d. 198.k. 202.g. 206.g. 219.c. 247.d. 249.b			
250.g. k. l. 253.g. 274.i. 275.c. 277.a. 283.a. 287.f			
289.d. 313.e. 318.i. 330.b. 331.c. 353.e. 383.b. c			
413.g. 419.c. 430.g. 422.f. 431.a. 443.g. c. See Bellie-			
ach.			
W Y			
Wyne, whether more wholesome or hurtfull to mans body,			
151.a.			
Wyne of Dates, wherefore good,	155.e		
of VVine, Aesclepiades compiled one entire treatise,	151.b		
Wyne medicined with marble, plaistre, and quicklime,			
hurfull,	153.c		
Wyne runned up or delayed with sea-water,	153.e		
touching Wine, which be best, great varietie and disensi-			
on of authors,	151.b. c		
what VVyne is most wholesome,	153.e		
Wyne dressed with rosin, how they be wholesome, and how			
hurfull,	ibid.		
Wyne Falerne, the properties thereof,	151.d		
the discommodities that it bringeth,	151.e		
Wyne Albane, the operations of it, and the discommodities,			
ibid.			
Wyne Helvenaca,	154.b		
Wyne Surventine wholesome,	151.e		
Wyne Cacabum out of use,	ibid.		
Wyne Setine the vertues thereof,	ibid.		
Wyne wherein rosin hath beene newly put, is unwholsome,			
153.f.			
Wyne Statane their properties,	151.f		
as touching the vertues of VVyne in generall, a discourse,			
152.g.			
the convenient time to drinke VVyne,	155.a		
Aesclepiades his proud praise of VVyne,	151.b		
Wyne artificiall, needlesse and superfluous,	155.b		
which Wyne beareth most water,	152.i		
what VVynes least mebrat,	ibid.		
which be easiest of concoction,	ibid.		
what VVynes be not nutritive,	ibid.		
which most unwholsome,	152.k		
Wyne not to be mixed,	152.l		
VVyne drunke upon an emptie stomacke, hurfull both to			
body and mind,	152.m. 153.a		
VVyne Merum, what it is, and the operation thereof,	153.b		
when VVyne is to be delayed with water,	ibid.		
VVyne in what measure and proportion to water, wee ought			
to drinke,	155.b		
VVyne somewhat delaied with water, wherefore good,	153.b		

X A

Xanthus, an ancient Chonicle,	211.b
Xanthus, a pretious stone. See Henni.	
Xenocrates, an imageur and writer of imagerie,	503.b
Xiphion, what herbe, 23.g. the description,	ibid.
X Y	
Xyris, a wild flower de-lis, the vertues that it hath,	105.m
to be used with great ceremony,	ibid.
Xylston a gem, common among the Indians,	622.

Y A

Y Arrow, an herbe, 201.e. the description thereof, and	
the vertues,	ibid.
why it is called Myriophylon, Millefolium, and Mille-	
foile,	ibid.
mans Tard exulcerat how to be healed,	272.i
Y C	
Yee water, what is to be thought of it,	406.g. b
Y E	
Yeels wearing earrings & taking meat at mans hand,	428.l
Yellow colour very ancient,	89.m
Yest. See Barne.	
Yough tree, the vertues that it hath,	195.f
Yex or Yox, by what means it is staied,	50.g. 59.e. 66.b
67.c. 76.a. 102.g. 130.g. 155.e. 218.i. 248.b. 274.i	
289.d. 304.k. 342.b. 431.c. 444.b.	
Y N	
Ynke-blurs, how to be taken out,	306.b
Y O	
Youth and youghfull countenance, how it may be preserved,	
65.e. 101.b. 167.b.	
Y R	
Yron praised and dispraised,	513.c. d. e
Yron scales, the medicinable uses thereof,	513.e
of Yron and Steele the use in Physicke,	513.e
Yron how preserved from rust,	ibid.
Yron forbidden but in tillage of the grounds,	513.e
quicke Yron, what it is,	513.b
of Yron and Steele drinking cups,	514.g
Yron reuenged of it selfe by the rust,	514.g
Yron mines in all countries to be found,	514.b
Yron ore, how to be burnt, tried and fined,	ibid.
Yron tried by the means of one onely river in Cappadocia,	514.b.

of

The Table to the second Tome

<p>of Iron sundry sorts, 514.b.k Iron, better or worse by reason of the water, 514.k for good Iron and Steele countries renowned, ibid. of Iron sundry degrees in goodnesse, 413.k.l edged tooles of Iron, how to be hardened, 513.m Iron blade having once shed mans blood, given euer after to rust and canker, 515.a Iron what vertue it receiveth from the loadstones, ibid. Tuorie. See Elephants tooth. Turay. See Darnell.</p>	<p>ibid. how long hee was about it, and what payment hee had for it, 496.b Zenon, a writer in Physicke, 131.e Zenathemis, a writer in Naturall Philosophie, 606.b Zeros, a pretious stone, 623.c Zenxis, a most renowned painter, 534.b. when he flouri- shed, ibid. his praise, ibid. his wealth, ibid. his bountifull mind and high opinion of his owne pictures, ibid. his Mos under Penelope by him drawne in a picture, ib. his other works, 534.l what was his faults, 534.l. 535.a.b.c</p>
------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

Z A

Z Achalias a Babylonian and writer in magicke, 627.e
 Zambenes, a pretious stone, 630.g
 Zaratus a magitian, 372.i
 Zarmocenedas, a magitian, ibid.

Z E

Zea or Spelt, a graine, what vertue it hath in Physicke,
 138.l
 Zedoarium. See Serwall and Phn.
 Zeno the Philosopher his image, Cato would not sell with
 other pillage, 504.m
 Zenodorus, an excellent imagenr and engraver, 496.g
 he made the Colosse of Mercurie at Auvergne in France

Z M

Zmilaces, a pretious stone, 630.g
 Zmilus, one of the architectts that made the Labyrinth in
 Lemnos, 579.c

Z O

Zoophthalmos, what herbe, 237.c
 Zopirus, a notable graner, 483.f
 two cups of his making of great price, ibid.
 Zopissa, what it is, 184.g. which is best, ibid. the vertues, ibid.
 Zoroastres first practised art Magicke, 372.b
 Zoronissos, the Magicians gem, 630.g

Z V

Zura, what it is, 145.b

Z Y

Zythus, a kind of ale or drinke made of corne, 145.b

An Aduertisement.

W Hereas in the former edition this page was stuffed full of Errata, which
 were occasioned by reason of the various matter and words used in this
 Historie, not common obvious in other Authors; such care in this
 second Edition hath beene taken, as that they haue all beene amended, whereby the
 Readers paines to mend, or be offended with them, is taken away. This I thought
 good to give notice of, least any should thinke them omitted, not amended.



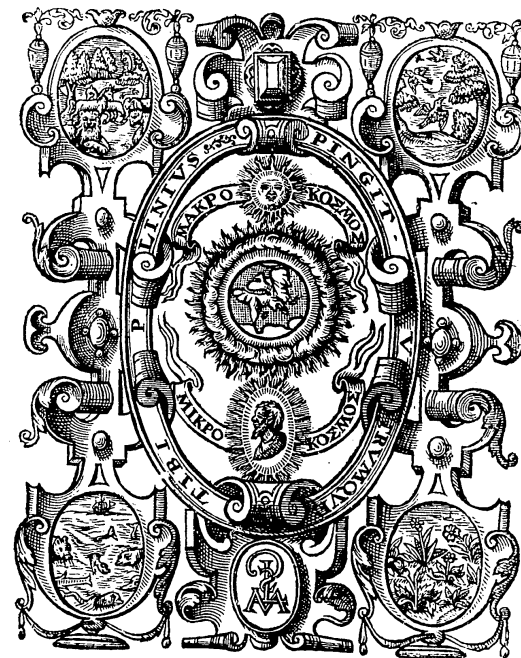
Handwritten signature: R. B. 1781

THE HISTORIE OF THE WORLD:

Commonly called,
THE NATVRALL HISTORIE OF
C. PLINIUS SECVNDVS.

*Translated into English by PHILEMON HOLLAND
Doctor of Physicke.*

The first Tome.



LONDON,
Printed by *Adam Islip*, and are to be sold by *John
Grifmond*, in *Ivy-lane* at the Signe of
the *Gum*. 1635.

CHAP. LVI.

¶ Which be the best hens.

A Man shall know a good and kindly hen by her comb, when it is strait and vpright: otherwhiles also double crested: also by the pinion feathers blacke, the vpper plume reddish. Such a hen will be red also about her head and bill, and haue an odde toe to her feet, yea and sometime that od one to lie crosse ouerthwart the other foure. In case of sacrifices and religious vse they are not thought good nor allowable that haue becke and feet yellow. For diuine seruice and secret mysteries celebrated in couert to the goddesse Ops, the black are allowed for good. There is also a dwarfish kind of hens, [i. grig hens] that are extraordinarie little, and yet fruitful, a thing not seen in any other kind of fowle: they lay and misse not, but seldom sit they H on any eggs, and if they do it is hurtfull for them.

CHAP. LVII.

¶ The maladies that hens be subiect vnto, and the remedies.

That which troubleth all the kind of them is a certain distillation of a phlegmaticke humor, which caueth the pip, the most of all between haruest time and vintage. The cure is, to keep them hungry & long fasting: also to let them lie or perch in a smoky place, especially where the fume is made of Bay leaues and the herb Sauin. It is good moreouer, to draw a little quill or feather through their nostrils acrosse, and to remoue or shift it euery day. As I for their meat, let it be some cloues of garlicke shred among their corne, or else let their meat bewell infused or steeped in water, wherein an owle hath washed and bathed her selfe, or else foddren with the seed of Bryonie or the wilde white Vine: besides such other medicines as are daily in vse.

CHAP. LVIII.

¶ The manner how fowles do conceiue, and what number of yong ones commonly they hatch.

Doues haue this propertie by themselves, to bill one another and kisse before they tread. They lay for the most part two eggs. Thus Nature hath disposed, that some should breed often and few: others should hatch many together at once. The Ringdoves or Quoists, K and Turtles, ordinarily lay three eggs; and lightly they sit and hatch but twice a yere: and that is, if their first brood come not to perfection, but miscarried and was not reared vp. And albeit they lay three eggs, yet they neuer hatch but twain: the third that is addle, they call in Latine *Vrinnm*. The female Ringdove sits euer from noon vntil the next morning; the male makes vp the rest of the day. House-doues breed euermore one cock pigeon, and another hen. The male is hatched to day, and the female tomorrow. In that kind they sit both, the cock all day, and the hen by night: and vsually vpon the 20 day they hatch. They lay within fve daies after they be troden, and in summer time verily you shall haue them in the space of two months bring three L paire of pigeons; for then they vse to hatch by the 18 day: and presently they conceiue again. So that a man shall oftentimes find new laid eggs euen amongst the young pigeons: and otherwhiles it is seen, that whiles some are ready to fly, others peep newly out of their shel: and these yong birds within fve moneths will lay themselves. Now the nature of these hen doues is (if they want a cock) to tread one another, and hereof they come to lay barren eggs, wherof nothing will be ingendred: and such the Greeks call Hypenemia, i. wind-eggs.

CHAP. LIX.

¶ Of the Peacocks and Geese.

The Pea-hen falls to lay and breed after she is 3 yeres old. In the first yere she begins with M one or two eggs: the yere following she riseth to foure or fve: in the rest she reacheth to twelue and no more. When she layeth, her manner is to rest two or three dayes betwene euery egge. And thrice a yere she keepeth this order, namely, if her egges be taken from

A from her, and put vnder hens to be sitten vpon: for why, the Peacocks wil break the m if they can meet with them, because they cannot misse and spare the Peahens company while they are broody and sitting: which is the cause they are wont to lay by night, or in some secret corner out of the way, and that from an high place where they perch: and then, vnlesse there be good heed taken that the eggs be latched in some soft bed vnderneath, they are soone broken. One Peacock is sufficient to go with fve wiues: for when there is, but twain [the villaine is so lecherous] with ouermuch treading he hindereth their laying, and marreth the knot of eggs ingendred within them. The Peahen hatcheth in 28 daies, or in thirty at the farthest.

B Ganders and Geese ingender together in the very water. Geese lay ordinarily in the spring: or if they were troden about mid-winter, then ye shall haue them lay after the Winter Sunne: stead some forty daies or very neere. They haue vsually two laiters in the yere, namely, if hens hatched their former eggs. The most that they hatch at one sitting is sixteene, and the fewest seuen. If a man steale their eggs from them they lay still, and neuer giue ouer till they be readie to burst with laying. No birds eggs but their own will they hatch. The most profitable way, is to set them vpon nine or eleuen. The females only sit, and that for the space of 30 daies, vnlesse it be warme weather, and then they will haue done by 25. If one of their Goslings be stung neuer so little with a nettle, it will die of it. Their owne greedy feeding also is their bane, for one while they will eat vntill they burst again; another whiles kill themselves with straining their own felues: for if they chance to catch hold of a root with their bill, they will bite and pul so hard for to haue it, that many times they breake their owne neckes withall, before they leaue their hold. Against the stinging of nettles the remedie is, that so soone as they be hathed there be some nettle roots laid vnder their nest of straw.

CHAP. LX.

¶ Of Herons and Bittours, and the best way to keepe eggs long.

DOF Herons be three sorts, * Leucon, * Asterias, * and Pellon: these last ingender with much paine and difficultie; as for the males verily they cry againe for anguish, and the bloud starts out of their eies in the act of treading. And with as much ado and trouble do the females lay, after they be knit with eg. The Egle and the most part of the greater fowls sit 30 daies, whereas the lesse continue but 20, as the Kite and the Hawk. The Kite vsually hatcheth but one at a time, and neuer about three: but that kind called *Egoliol* somtimes foure. The Rauens also now and then fve: and those cooue as many daies. While the female crow sits the male feeds her. The Piot ordinarily brings forth nine Piannets, the fig-pecker *Melanecoryphus* about 20, but euermore an od one: and there is not a bird that goeth therein about her. Lo how Nature is willing to multiply the race of little birds! The yong Swallows are at the first blind, and so are all such as are hatched many in number. Wind-eggs, which we call Hypenemia, come either by the mutuall treading of hens one another, by an imaginarie conceit of the male, or else by dust. And such eggs not only Doues doe bring, but house Hens also, Partridges, Peahens, Geese, and Brants, or the female Barganders. Now these eggs are barren as it were, and neuer proue birds, lesse than others, not so pleasant in taste, and besides more moist. Some are of opinion that the wind will ingender them, for which cause also they are called *Zephyria* [i. West-wind eggs.] And verily such eggs are seen only in the spring, when that wind blows. Addle eggs, which some called *Cynofura*, are they that chill vpon the rest, when the hen is gone and giueth ouer sitting. Eggs steeped in strong vinegar will come to be so soft, that they will passe and be drawn through the ring of a mans finger. The best way to keepe egges is in beane meale or floure; and during winter in chaffe, but for summer time in bran. It is thought if they lie in salt their substance will waste and consume to nothing within the shell.

CHAP. LXI.

¶ What Bird alone bringeth forth a liuing creature, and feedeth it with milke.

The Rere-mouse or Bat alone of all creatures that fly, bringeth forth yong aliue, and none but she of that kind hath wings made of pannicles or thin skins. She is the only bird that suckleth

suckleth her little ones with her paps, and giues them milk: and those she wil carry about her two at once, embracing them as she lieth. It is said also that she hath no more but one ioynt of the hanch, without any in the knee or feet: and that they take greatest delight to feed vpon gnats.

CHAP. LXII.

¶ Of Vipers: their manner of generation and bringing forth yong: and what land beasts do lay egges.

Moreouer, among creatures of the land, serpents lay eggs: whereof as yet we haue not written. As they ingender together they clip and embrace, and so intangled they be and in-wrapped one about the other, that a man who saw them would think they were one serpent with two heads. In the very act of generation the male Viper thrusteth his head into the mouth of the female; which she (for the pleasure and delectation that the hath) gnaweth and biteth off. No land creature els but she hath eggs within her belly, of one colour and soft, like as fishes haue. Now after three daies they be quicke, and then come forth as they be hatched, but no more than one at once every day: and so commonly she hath. When she is deliuered of the first, the rest (impatient of so long delay) eat through their dams sides, and kil her. As for other serpents they lay their eggs linked and chained together, and so sit vpon them on the land: but they hatch them not vntill the yeare following. Crocodiles sit by turnes, the male as well as the female. But I thinke it good to treat also of the generation of other land creatures.

CHAP. LXIII.

¶ The generation of liuing creatures vpon the land.

Of all liuing creatures two footed, a woman onely bringeth forth her yong quicke. Men and women both, and none but they, repent at first the losse of their maidenhead: A very presage (no doubt) of a life to ensue full of trouble and miserie, that thus should begin with repentance. All other creatures haue their set times and certain seasons in the yeare when they ingender, as hath bin shewed before: but all is one with vs, and no houre of day or night comes amisse. Other creatures know when they haue enough, and rest satisfied: we only are insatiable that way, and cannot see to make an end. The Empreffe *Messalina*, wife of *Claudius Caesar*, thinking it the only victorie for a lady and queen to excell in this feat, chose the most gallant curtsian and commonest strumpet in all Rome, to try masteries and to contend with for the best game: and in very truth she won the prize; for in the space of 24 houres she out-went her [a beastly thing to be written] no fewer than 25 times. As for men, they haue deuised in the practise of this filthy act, euen to abuse some parts against kind: and women (vnnatural as they be) haue the cast to destroy within them the vnripe and vntimely fruit of their own body. Certes in this behalfe how much worse are we than the wild and sauage beasts of the field. *Hesiod* writeth, that men are more giuen to lust in winter than in summer, and women contrariwise. Elephants, Camels, Tigers, Onces, Rhinoceros, Lions, Hares, Conies, and generally all beasts which haue their genitall parts from-ward, turn taile to taile to the female in the act of generation. As for Camels, they go into the desert, or at lestwise seeke some corner when they would ingender; and dangerous it is for one to take them in the manner. They continue in this action one whole day together, and so do none els that are whole hoofed. In foure footed beasts the males are set into the heat of lust by senting and smelling. Dogs and Bitches, Seales & wolues likewise turn away, and in the mids of the action be tied one to another euen against their wils, and cannot help it. The females of most of these before named begin to ride the males first, for to prouoke their lust: but of the rest, the males leap the females at the first. Beares (as we sayd before) lie along both as man and woman. Hedge-hogs stand both vp-right, and claspe one another when they ingender. The he Cat standeth on his feet, and the she lieth vnder him. Foxes ly vpon their sides, and so the Birch embraceth the male Fox. Kine and Hindes cannot well endure the violence of the Bulls and the Stagges in this businesse, and therefore they are euer going when they doe engender. Stagges goe from one Hinde to another, and then come againe to the first; and this doe they in course. Lizards, as all other creeping creatures that haue no feet, wind one about another as they ingender. The greater that any beasts be, the lesse fruitfull

fruitfull they are of their bodie. Elephants, Camels, and Horses, get but one at once, neither do the females beare any more at a time: whereas the Goldfinch or Linner, a verie little bird, bringeth forth a dozen commonly at once. Such as bring most, are least while in breeding. The greater that any creature is, the longer time it requireth to be formed in the mothers wombe. And such as liue long, be longer also ere they haue their perfection and come abroad into the world. The growing age is not meet for generation. Beasts that are whole hoofed, neuer bring but one at a time: such as be clouen footed in twaine, may also haue twins. But as many as haue their feet parted and deuided into many toes, are fit to beare many at ones. And whereas all the former rehearsed, bring forth perfect creatures with all parts, some haue their young ones imperfect and but halfe made: in which number Lionesses, the Beares, bitch Foxes, are to bee reckoned: but especially the shee Beares, whose whelpes are more vnliken than the rest: and a rare thing it is to see them a whelping. Howbeit such females when they be deliuered of them, with their licking do chafe and heat them, and so by little and little bring them to some forme, and fashion by this meanes. Such for the most part beare foure whelpes. As for bitches, Wolues, Panthers, and Thoes, kindle their young before they can see.

Of Dogges and Bitches there be many kinds. They of *Laconia, as well the male as the female, beapt to engender after they be eight months old. They be with whelp threescore daies and three ordinarily. As for other Bitches, they goe proud at fixe moneths, and may be lined. They be all the sort of them, sped at the first lining. Bitches that go assaut and take the dog before the full time, namely when they be verie young, such bring a litter that will be longer ere they see: neither goe they, but all the whelps will not be blind so many daies. Dogs commonly when they be halfe yeare old, are thought to lift vp their leg when they pisse; and that is a signe they are come to their full strength and perfection: but bitches all that time pisse sitting vpon their buttocks. They haue twelue whelps when they bring most, but ye shall see them commonly with a litter of six or five: and sometime they come with iust one, but that it is thought to be a prodigious signe; as also if the whelpes be all Dogges or all Bitches. The first vsually that they whelp, be Dogs; for the rest, they be one with another, a Dog and a Bitch: namely, if they were lined in the due season, and at the iust moneth. And commonly they goe proud six moneths after their former litter. The Bitches of Laconia ordinarily bring eight at a time. The Dogs of this race haue a proprietie with them, that the more they be trauailed, the more lustie and fresh they are, yea and the hotter after salt-bitches. They liue ten yeares, and the Bitches twelue. Of other kinds, ye shall haue them continue fifteen yeares, yea and otherwhiles twentie: but they engender not so long, but giue ouer commonly at twelue.

Cats and Rats of Inde, called *Ichneumon*es, in all other respects follow the Nature of Dogs, saue that they liue but six yeares. Conies kindle euerie moneth: and albeit they be bagged, yet will they take the bucke againe, and conceiue vpon it; like as the Hares also will doe the same: for as soon as euer they haue kindled, they go to bucke and are presently sped: and say that the Leuerets or Rabbets lie sucking at them yet wil they be with yong. When they be new kindled, they cannot see.

Elephants (as we haue already said) neuer bring but one at once, and that commonly is as big as a Calf a quarter old. Camels goe a whole yeare. After they be 3 yeares old, they are sufficient for to engender: and commonly they come in the spring: and it is a yeare after before they be couered againe. As for Mares, if there be three daies betwene, or but one, after they haue foled, it is thought they may very well be couered againe; yea and they are brought perforce to the stallion for this purpose. It is supposed also, that the shee Ass within seuen daies after, will soonest conceiue. It is a rule, to share and clip a Mares maine, before shee will abide the couering of an Ass, so vile and base a beast: for so long as the haire of her maine is well growne, she is so proud and glorious, that she will not abide the Ass to come neare her. So soone as they be couered and sped, they run full into the South or North-wind, according as they be conceiued either with male or female: a thing that no other beasts besides, doth. And then, suddainly they change their colour; for their haire will be redder, or at leastwise fuller and deeper, what colour soeuer it be. By which signe it is knowne they are with foal, and then they will admit no stallions vnto them, would they neuer so faine. And say, that some of them haue soles running by their sides, they will doe their deed at worke neuertheless: nay when they be with foal, they will labour as well as they did before: in so much, as many times they

* Resembling our English mastives.

steale a faling, before their master beware that they are with sole. We haue read in Chronicles, that *Echeeratides* the Theffalian had a Mare, which euen then when she was gone far with sole, woone the best game in the Olympian race. They that haue fought more narrowly into the secrets of Nature, say, That stone-Horfes, Dogs, and Bores, desire the females in a morning: but Mares, Bitches, and Sows make meanes to the male after noone. Mares that are kept within house at rack and manger with hay and prouender, desire to be couered threescor daies before those that goe abroad in the heard. Swine alone of all creatures when they be brimming, froth and some at the mouth. And as for the Bore, if he heare the grunting of a Sow that seekes to be brimmed, vnlesse he may come to her, will forsake his meat, vntill he be leane and poore: and she againe will be so far enraged, that shee will be readie to run vpon a man and all to teare him, especially if his cloths be white. But this rage and woodnesse of hers is asswaged and allayed, only with bathing her share behind with vineger. Some thinke there be certaine meats will prouoke beasts to fleshly lust, namely, Onions giuen in meat to a beast, like as Rocket to a man or woman. Moreover, it is supposed, that whatsoeuer is made tame, which by kind was wild, the same will not breed, as Geese and Ganders. In like manner, wild Swine & red Deere, if they be tamed; or if they doe, it is very long first: and such only as were brought to hand euen from the time that they were very yong. Finally, this one thing is strange and wonderfull, that all foure-footed beasts, saue only the Mare and the Sow, if they find themselves to be with yong, drine the male from them. But the Connie and the Hare alone will conceiue again when they be gone with yong.

CHAP. LXIII.

¶ *The varietie in liuing creatures, as touching their comming into the world.*

Whatsoeuer haue quicke creatures within them, bring the same forth with the head forward. For when the time is come, the yong thing turns about a little before, which otherwise lay freight out at length in the bellie. Four-footed beasts, whiles their dams go with them, lie with their legs stretched along, close vnto their own bellies. An infant while it is in the mothers wombe, gathereth round into a ball, and hath his nose lying just betweene his two knees. As for false conceptions or Moone-calues (whereof we spake before) some thinke they are engendred of the womans seed only: namely, when she is not conceiued by a man, but by her selfe: and hereupon it is, that the said conception hath no vitall nor animall life, because it proceeds not of the conjunction of male and female both. True it is, that it is endued with a certain vegetatiue power, to be nourished and to grow, like as we see intrees and many other plants.

CHAP. LXV.

¶ *The breed of Mice and Rats.*

Of all creatures that bring forth their young perfect, Swine only farrow one Pig and two Pigs at a time, yea, and sometimes a number of them. Also they alone contrarie to the nature of all those that either be whole-hoofed, or clouen-footed in twaine, bring a number of yong ones at one farrow. But about all, Mice and Rats for fruitfulness do passe. And therefore I cannot put off the discourse of them any longer: and yet therein I must follow *Aristotle* for mine Author, and the report withall of the souldiers that serued vnder *Alexander* the great. It is said that they engender by licking, without any other kind of copulation: and that one of them hath brought six-score at a time: also that in Persia there haue been young Mice found with yong, euen in the bellie of the old dam. And some are of opinion, that they will be bagged, if they tast but of a little salt. Why should wee then wonder any more how such multitudes of field-Mice and Rats should come to deuour whole fields of corne? Howbeit, the reason is not yet known, how such numbers of them should all of a sudden consume away & come to nothing. For neither see they found lying dead about ground, neither can any man come forth and say, that he hath turned vp any one with his spade as he digged in the Winter. The countrey of Troas is mightily giuen to breed great store of them, inso much, as they haue forced alreadie the inhabitants to abandon the place and depart. Men say, that the season proper and

and agreeable for their breeding in such abundance, is a great drought: also, that when they are toward their end, there be little wormes breeding in their heads that kill them. The Mice and Rats of Egypt haue hard haire and prickly like to hedge-hogs. They go likewise vpright on their hinder feet, and walk as if they were two footed, after the manner of those in the Alps. Moreover, if beasts of diuers kinds ingender together, they may wel breed yong between them, in case they do agree and jump in the time that the females of both should go with yong. It is commonly thought and beleueed, that among foure footed beasts the Lizard hath eggs within her, and deliuereth them at her mouth; but *Aristotle* flatly denieth it. Howbeit they sit not vpon them when they haue so done, as being forgetful where they laid them, so little or no memorie at all haue they. And therefore the yong Lizards of themselves breake forth out of the shell.

CHAP. LXVI.

¶ *Of a Serpent ingendred of the marrow of a mans back bone.*

I haue heard many a man say, that the marrow of a mans backe bone will breed to a Snake. And well it may so be, for surely there be many secrets in Nature to vs vnknown, and much may come of hidden causes, as we may see euen among foure footed beasts.

CHAP. LXVII.

¶ *Of the Salamander.*

As for example, the Salamander made in fashion of a Lizard, marked with spots like stars, neuer comes abroad and sheweth it selfe but in great shewres: for in faire weather he is not seen. He is of so cold a complexion, that if he do but touch the fire, he will quench it as presently as if ice were put vnto it. The Salamander casteth vp at the mouth a certaine venomous matter like milke, let it but once touch any bare part of a man or womans body, all the haire will fall off, and the part so touched will change the colour of the skinn to the white morpew.

CHAP. LXVIII.

¶ *Of those that breed of others which neuer were ingendred. Also of those that being ingendred, yet breed not.*

Some creatures there be that breed of those that neuer were ingendred themselves; and yet not according to those naturall means as others which wee haue shewed before; and such also as either the Summer or Spring, or some certain season of the yeare do breed. Among which some ingender not at all, as the Salamander: * for there is no more distinction of sex in them, than in Yeeles, and in all those which neither lay eggs, ne yet bring forth any liuing creature. Oysters likewise and all such creatures as cleaue fast either to rockes or to the shelues, are neither male nor female. As for such as come of themselves, if there be seene in them any distinction of male and female, something verily they ingender betweene them; but an imperfect creature verily it is, and not resembling them: neither doth that generation breed ought any more, as we see the flies that ingender certain little wormes. The experience hereof is better to be obserued in those creatures called Insects: whose nature is hard to be expressed, and yet I haue appointed a severall treatise for them apart. Wherefore I will go forward in the discourse begun already, and namely as touching the sence and vnderstanding of the forenamed Creatures, and then proceed to the rest.

CHAP. LXIX.

¶ *The outward senses of liuing Creatures.*

Man excelleth all other Creatures, first in the sence of feeling, and then of tasting: In the rest many beasts go beyond him. For the Eagles haue a clearer eie-sight, the Geires a finer smell; and the Moldwarps, notwithstanding they be couered ouer with earth (so heauie,

* Which is found true by experience

heauie, so thick and deafe an element as it is) yet their eare is far better than ours. Moreover, albeit the voice of all them that speake aboue ground doth ascend vward still from them, yet heare they when they talke, yea and if a man chance to speake of them, some hold that they vnderstand their speech, and thereupon do fly from them. A man, who at first lacketh his hearing, wanteth also the vse of his tongue: neither are there any deafe borne, but the same likewise be dumbe. A man would not think, neither is it likely, that the Oysters in the sea do heare, and yet vpon any noise and sound their manner is to sink down to the bottoome. And therefore when as men do fish for them in the sea they are as silent as they may be.

CHAP. LXX.

¶ A discourse, That fishes both heare and also smell.

Fishes verily haue no eares, ne yet any holes to serue for hearing; and yet plain it is that they doe heare, as we may daily see in certaine fish ponds and stewes where fishes be kept: for when those that haue the charge of them make a noise with clapping of their hands, as wild as they be otherwise, they shall haue them come in great flocks to take their meat that is thrown in to them: and this are they wont to do daily: and that which more is, in *Cesars* Fishpooles a man may see whole skuls of fishes to repaire at their call: yea, and some wil part from the rest of their company, and come alone to land when they be named. Hereupon it is, that the Mullet, sea-Pike, Stock-fish, and *Chronius*, are thought to heare best of all others, and therefore liue very ebbe among the shelues and shallowes. That fishes haue the sense of smelling it is manifest: for they are not all taken ne yet delighted with one kinde of bait: and this is obserued, that before they bite they will smell to it. Some also there be that lie in holes vnder rocks, and no sooner hath the fisher besmeared and anointed the mouth and sides of the said rocks in the very entrance to their holes, but he shall see them come forth, as it were to auoid the sent of their own carion. Let them lie in the very deep, yet wil they resort to certain odors and smells, namely, to the Curtill burnt, and the Polype, which for that purpose they vse to put into their nests. And verily they cannot abide the smell of the sinke and pumpe of a ship, neither wil they come neere vnto it: but aboue all things they may not away with the blood of fish. The Pourcuttle hardly or not at all can be pulled from the rocks, so fast cleaueth he: howbeit come neer him with the herb Marjerome, or Savorie, he will presently leape from the rocke and away, to auoid the sent thereof. Purples also be caught by means of some stinking bait. And for other creatures, who doubteth but they haue a perfect smell? Serpents are chased away with the smell and perfume of the Harts horn; but aboue all, with the odor of *Stryax*. And Pismires are killed with the very fume of Orizon, Quick-linie, or Brimstone. Gnats loue all four things, and willingly will thither: but to any sweet meats they come not neare.

CHAP. LXXI.

¶ That the sense of feeling is common to all liuing creatures.

There is not a liuing creature throughout the world but hath the sense of feeling, though it haue none els: for euen oysters and earth-wormes, if a man touch them doe evidently feelee. I would think also that there is none but tasteth as well as feeles. For what should the reason else be, that some desire to tast this, others that? And verily herein is scene aboue all the singular workmanship of Nature, in the frame of their bodies and the members thereof. Some ye shall haue to seise vpon their prey with their teeth, others snatch it with their talons and claws: some peck and pluck it with their hookt bills, others pudder into their food with their broad nebs. Some with the sharp point of their beaks worke holes into their meat; others lie sucking at it. Some lick, others sup in: to conclude, some chew, others swallow and deuoure whole as it is. As touching their feet, there is no lesse varietie in the vse thereof: in snatching and carrying away, in tearing and plucking a pieces, in holding fast, and in crushing their prey. Some ye shall haue to hang by their feet, and others neuer lin scraping or scratching the earth.

CHAP.

CHAP. LXXII.

¶ What creatures liue of poison, and what of earth.

Roebucks and Does, yea, and Quails (as we haue said before) will feed fat with poisons, and yet they are the most meeke and gentle creatures liuing. Serpents haue a great desire and loue to eggs; wherein the subtilty of Dragons is worthy to be considered. For either they swallow them downe whole (if their throat will receiue them) and after they be within their body, breake and squeeze them in pieces with rolling and winding themselves round together, and then cast vp the shels againe: or if they be but young ones yet, and not so strong as to gobble vp whole eggs, then they will winde about an egge with their taile by little and little, & bind it so hard, that they will cut off the crowne of it, as it were with a knife, and then sup off the rest which they clasp and hold fast between. In like manner deale they with birds. For swallow they will them whole downe the gullet, and afterwards straine and struggle so with themselves vntill they disgorge again the feathers and bones that were in their bellies.

Scorpions feed vpon earth. And Serpents againe, if they may come handsomly to wine, will make means to drink their fill of it, how soeuer otherwise they haue but little need of any drink. They eat no meat at all, or very little, when they be kept close within any thing: like as the spiders also, which otherwise naturally liue by sucking. And therefore you shall not lightly see any venomous creature die either of hunger or thirst. For neither haue they store of heat, nor plenty of blood, ne yet of sweat: all which naturally prouoke a stomach, & giue an edge to appetite. And among these venomous creatures, those be euer more dangerous which haue eaten some of their own kind, before they bite or sting. Apes, Monkeys, and Marmosets bestow and treasure vp the meat that is giuen them, or that they can come by, within their cheeks, as in a store-house. And when they be hungry, they get the same forth by little and little with their hands, & so sal to chew it. Thus practise they in making their prouision, for to serue them from day to day, and from one houre to another: which Pismires vsually do from yeate to yeate.

CHAP. LXXIII.

¶ The meat and drinke of some creatures.

Of all liuing creatures that haue many toes in their feet, the Hare alone feeds vpon grassie and greene corne in the blade. As for those that be whole hoofed, they liue both of the blade, and also of the fruit thereof. Also of such as be clouen footed, Swine will eat all kind of food, yea, and liue of very roots. It is the property of whole hoofed beasts alone, to walow and turn ouer and ouer. All that haue teeth indented in like saws, be naturally deuourers of flesh. Bears wil feed of corn, brouse trees, eat grapes, liue of apples and other fruits, feed vpon bees, creifishes, and pismires. Volues (as we said before) if they be very hungry, eat earth: sheep feed the better & grow fat, if they may drink; and therefore salt is very good for them, because it makes them thirsty. Draught beasts, and such as are vsed for carriage, albeit they liue of corne and grassie, yet according to their drinking they do feed. Besides those mentioned hertofore, of wild beasts the red and fallow Deere both, doe chew cud when they be made tame and fed by hand: but all chuse rather in so doing, to lie than to stand, & in winter more than in summer, for seven months ordinarily. The rats and mice in the country of Pontus, namely, *Hethims*, & such like, after the same maner do chew cud and go ouer their meat again. What beasts soeuer are toothed like saw teeth, lap as they drinke. So do also our common mice and rats, although they be of another kind, and are not so toothed. They that haue broad teeth, plaine, and vniforme, as horses and kine, drinke supping and taking their full draught. Bears in their drinking do neither the one nor the other, but bite at the water and so let it down. In Affrick the more part of wild beasts drink not all summer long, for want of raine water: which is the cause that the Rats and Mice of Ginnie which be taken, if they drink afterwards vpon so long disuse, die therewith. In the desarts of Affrick, where there is no water euer to be had, there is ingendred a certain wilde goat named *Oryx*, which as by the nature of the place it wanteth drink, so it hath in her bodie a souverain and singular remedy against drought and thirst. Which the common theeves & robbers by the high way side in Getulia, knowing well enough, endure a long time with the helpe thereof.

thereof without drinke, for they vse to stanch and quench their own thirst, with a certain moist hole some liquor found in the bladders of the said beast. In the same Affricke the Leopards lie in await among the thickets of trees, hidden within the branches; and so seize vpon them that passe by, and make spoile euen from the place where fouls vse to perch. As for Cats, marke I pray you how silent they be, how soft they tread when they steale vpon the silly birds: how secret lie they in espiall for the poore little mice to leap vpon them. Their owne doung and excrements they will rake vp and hide in the earth, knowing full well, that the smell thereof will bewray where they are.

CHAP. LXXIII.

¶ *What beasts accord together, and which they be that disagree one from another.*

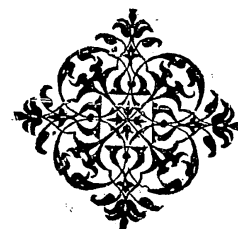
BE sides these outward fences abouenamed, euident it is also, that brute beasts haue other instincts of nature. For they entertain friendship and enmity one with another (which cannot be without affection and passion) ouer and besides those other wars and amities which wee haue obserued in their feuerall places. Swans and Egles jar and war one with another: so doth the Rauens and the Witwall or Lorient, which seeke after one anothers eggs in the night. Likewise the Rauens and Kite: for the Rauens is euermore ready to catch the Kites meat from him. Crows and Owles are at mortall feud one with another. The roiall Egles hateth the Wren, and why? because (if we may beleue it) he is named Regulus (i. the pettie king.) Howlets also cannot agree with other little birds. Again, foules make warre with foure-footed beasts. The Weasell and the Crow be at deadly debate. The Turtle with the Creckit (Pyrallis) that liueth about the fire. The Ichneumons with Wasps: the Phalangia with other Spiders. And among water foules, Ducks and Drakes with the sea-gulls. The Seamews with the Buzzard Triorchis. As for the field Rats or Mice, and the dwarf-Herons, they seeke to prey one vpon the others little ones. The bird Egithus (the least in maner of all others) waiteth the Asse a shrewd turn; for when he rubbeth himself against the bushes to scratch where it itcheth, he therewith breaketh and ouerthroweth her nest; and therefore this silly bird is so much afraid of the Asse, that if he heare him but bray, he is ready to throw the eggs out of her nest, and those that be already hatched, will for very feare fall downe: then in reuenge of this wrong, she will flie vpon him, and with her bill peck where the skin is off and raw with rubbing, yea, and make holes euen to the very bone. Moreouer, Foxes and the Yeeles of Nilus cannot abide one another, but are in continual war. So be Vezils and Swine. There is an unhappy bird called Aesalon, and but little withall, yet will she squash and breake the Rauens eggs. And when she hath yong ones, they be much troubled and annoied with Foxes: she again to be quit with them, will all to pinch & nip both the Fox and her cubs. The Rauens seeing that, come to aid (as it were) against a common enemy. The Gold-finch liueth among bushes and thorns, and therefore she also hates the Asse, because he eateth vp the floures that grow therupon. The bird Egithus, so far hateth another called Anthus, that men are verily perswaded the blood of them both will not mingle together: and hereupon it is, that the forcerers and witches haue brought it into an ill name. The Thoes and the Lions do fouly jarre and disagree. In summe, the least creatures as well as the biggest quarrell and fight one with another. Rats, and field Mice cannot abide to come neere a tree that is full of Ant-nests. The Spider espying a Serpent lying along vnder the shade of a tree where she spinneth, slideth down vpon a fine thred to the head of the Serpent, and stingeth him so deep into the braine, that he falleth a hissing and grinding his teeth: he keepeth a winding and turning about, but hath not the power to breake the thred that hangeth aboue, ne yet to fly from the Spider: insomuch, as the Serpent lieth there dead in the place. Contrariwise, Peacocks and House-doues be as friendly one to another: so be the Turtles and Popinjaies, the Merles and Turtles likewise. The Crow and the lesse Bittours also: for they ioine and band together against the common enemy the Fox. Likewise, the bird-Harpe and the Kite against the Buzzard. What will ye say? be there not tokens of affection euen in Serpents, the cruellest and fellest creatures of all others in the world? I haue written already of the report or tale that goeth in Arcadia of a man, whose life was saued by a Dragon (that was brought vp by him) so soon as euer he knew him by his voice. As for the Aspis, Philarchus telleth a strange history of it,

A it. For he writeth, that in Egypt there was an Aspis vsed ordinarily to come to the table of a certaine Egyptian, and there tooke meat at his hand: which Serpent afterwards had yong ones, whereof one chanced to sting a son of the master of the house, that he died of it. Now when the dam (the old Aspis) came accordingly at the accustomed houre of repast for victuals, and perceived the deed committed by her little one, not onely killed it in satisfaction of the former fact, but also forbore the house, and was neuer knowne to repaire thither againe.

CHAP. LXXV.

¶ *The sleepe of liuing creatures.*

THe question, Whether liuing creatures sleep or no? is not very difficult, but soon decided: For plain it is, that of land creatures, all that winke and close their eyes doe sleepe. As for those in the water, that they also sleepe (though but a little) euen they are of opinion who otherwise make doubt of the rest. And this they do not collect & gather by their eyes (for lids they haue none to shut) but because they are seene to lie so still and quiet, as fast and sound asleep, stirring no part, but a little wagging their tails, and seeming to start and bee affright at any sudden noise made in the water. As for the Tunnies, we may auouch more confidently of their repose: for they come of purpose to sleep vnder the banks or rocks. And flat broad fishes lie so still sleeping among the shelles, that oftentimes a man may take them vp with his hand. The Dolphins and Whales be heard to rout and snort again, they sleepe so soundly. Moreouer, as touching Insects, no man need to doubt that they sleep, so quietly do they lie and make no noise: nay, if you bring a candle or other light, and set it euen before their eyes; you shall not haue them to awake nor moue. An infant after it is borne, sleepeth for certaine moneths at the first, and in manner doth nothing els. But the elder hee waxeth, wakefull is he every day more than other. Babes at the very beginning do dreame. For they will waken and start suddenly in a fright; and as they lie asleep, keep a sucking of their lips, as if it were at the breast heads. Some neuer dream at all. And if such chance contrary to this custome, for to dreame once, it hath bin counted for a signe of death, as we haue seene and prooued by many examples and experiments. And here in this place there offereth it selfe a great question, and very disputable *pro & contra*, grounded vpon many experiments of both sides: namely, whether the soule of man while the body is at rest, foreseeeth things to come? and how it should so do? or whether this be a thing of meere chance and altogether coniecturall, as many others be? And surely if we go by histories, we may find as many of the one side as the other. Howbeit all men in manner agree in this, That dreames either immediatly vpon drinking wine and full stomacke, or els after the first sleep, are vaine and of no effect. As for sleep it is nothing els but a retreat and withdrawing of the soule into the mids of it selfe. Euident it is, that Horses, Dogs, Kine, Oxen, sheep, and goats do dreame. Whereupon it is credibly also thought, that all creatures which bring forth their yong quicke and liuing, do the same. As for those that lay egges, it is not so certaine that they dreame: but resolued it is, that they all do sleep. Now let vs passe and proceed to the treatise of Insects.





THE ELEVENTH BOOKE OF THE HISTORIE OF NATVRE, WRITTEN BY C. PLINIUS SECVNDVS.

The proeme.

It remaineth now to write of those lining creatures, which are the most subtile of all others that Nature hath brought forth: forasmuch as some are of opinion, That they breath not, ne yet haue any bloud at all.

CHAP. I.

¶ Of Insects in generall.

Many and sundry sorts there be of Insects, as well among land creatures as those that fly in the aire. Some are winged, as bees: some haue partly wings and partly feet, as Pismires: others want both, and neither flie nor go on their feet. And wel may they all be called *Insecta*: by reason of those cuts and diuisions, which some haue about the necke, others in the breast and belly; the which do go round and part the members of the body, hanging together onely by a little pipe and fistulous conueiance. There be of them, that haue not the body diuided entire, one part from the other by these incisures, cuts, and wrinkles; but they appeare only either vnder the belly, or vpon the backe aboue, and go no deeper, neither yet round the whole compasse of the body. But a man shall perceiue in them certaine rings or circles, apt to bend and wind to and fro, and those so plated and plaited one ouer another, that in nothing elswhere is more seen the workmanship of Nature, than in the artificiall composition of these little bodies.

CHAP. II.

¶ The industrie and subtiltie of Nature in framing these Insects.

In bodies of any bignes, or at least-wise in those of the greater sort. Nature had no hard piece of work to procreate, forme, and bring all parts to perfection; by reason that the matter wherof they be wrought, is pliable and will follow as she would haue it. But in these so little bodies (nay pricks and specks rather than bodies indeed) how can one comprehend the reason, the power, and the inexplicable perfection that Nature hath therein shewed? How hath she bestowed all the five senses in a Gnat? and yet some there be, lesse creatures than they. But (I say) where hath she made the feat of her eyes to see before it? where hath she set & disposed the tast? where hath she placed and inserted the instrument and organ of smelling? and aboue all, where hath she disposed that dreadful and terrible noise that it maketh, that wonderfull great sound (I say) in proportion of so little a body? can there be deuised a thing more finely & cunningly wrought than the wings set to her body? Marke what long-shanked legs aboue ordinary she hath giuen vnto them. See how she hath set that hungry hollow concauitie in stead of a belly: & hath made the same so thirstie and greedy after bloud, and mans especially. Come to the weapon that it hath to pricke, pierce, and enter through the skinne; how artificially hath shee pointed and sharpened it? and being so little as it is (as hardly the fineness thereof cannot be seen) yet as if it were of bignesse & capacity answerable, framed it she hath most cunningly for a twofold vse: to wit, most sharpe pointed, to pricke and enter; and withall, hollow like a pipe for to sucke in and

A and conuey the bloud through it. Come to the Wood-worme, what manner of teeth hath Nature giuen it, to bore holes and eat into the very heart of hard Oke: who heareth not the sound that she makes whiles she is at her work? For in wood and timber is in manner all her feeding. We make a wonder at the monstrous and mighty shoulders of Elephants, able to carry turrets vpon them. We maruell at the strong and stiffe necks of buls, and to see how terribly they will take vp things and toss them aloft into the aire with their hornes. We keepe a wondering at the rauening of Tygres, and in the shag manes of Lions: and yet in comparison of these Insects there is nothing wherein Nature and her whole power is more seene, neither sheweth she her might more than in the least creatures of all. I would request therefore the Readers, that in perusing this treatise, they will not come with a preiudicate opinion, nor (because many of these silly flies and wormes be contemptible in their eyes) disdain, loath, and contemne the reports that I shall make thereof; seeing there is nothing either in Natures workes that may seeme superfluous, or in her order vnworthy our speculation.

CHAP. III.

¶ Whether Insects do breath, and whether they haue bloud or no?

Diuers haue denied that they breath at all; and vpon this reason they ground their position; Because they haue no arterie or wind-pipe annexed or reaching to any instrument within of respiration. And they be of opinion, that they liue indeed as plants, herbes, and trees; howbeit (say they) there is a great difference betwene hauing life, and drawing wind or vitall breath. And by the same rule they affirme, that they haue no bloud, which is in none that bee without heart and liuer. Neither do any things breath which want lungs. And from hence ariseth a world of other questions thereupon depending. For the same men deny flatly, that these creatures haue any voice: notwithstanding so great humming of bees, & singing sound of grasshoppers, and such other, whereof we will consider in due time & place, accordingly. Verily for mine owne part, the more I looke into Natures workes, the sooner am I induced to beleue of herenue those things that seem incredible. Neither do I see any inconvenience to thinke, that these Insects may as well draw wind and breath without lungs, as liue without such noble and principall parts as are requisite for life in other creatures: according as we haue already shewed in the discourse of fishes and such like, that liue in the sea; how soeuer the quantitie, depth, and heights of the water, may seeme to impeach and stop their breath. For who would easily beleue, that some creatures should flie at libertie, and liuing as they do in the mids of wind and aire, yet want wind and breath themselves? that they should haue a sense and care to seek their liuing, to engender, to worke, and to forecast for the time to come: and howbeit they haue no distinct members, to carry (as it were in a ship) their seuerall senses, yet that they should heare, smell, and taste, yea and be indued with other singular gifts besides of Nature, to wit, wisdom, courage, skill, and industrie. Indeed, confesse I must, that bloud they haue none: no more haue all creatures that liue vpon the land: howbeit a moist humor they haue, somewhat like vnto bloud, which serues them in stead thereof. Like as in Cuttels of the sea, there is found a certain blacke liquor in stead of bloud: and in all the sort of Purples and such shel fishes, that excellent iuice which staineth & dieth so as it doth. Semblably in these Insects, whatsoeuer humor it is, whereby they liue, the same may well enough go for bloud and so be called: all the while that euery man hath liberty to giue it what name he thinketh fittest. As for me, my purpose is not to judge and determine of these doubtful quilliers, and their causes; but to set down and shew the nature of such things as be cleare and apparent.

CHAP. IIII.

¶ The substance of the body in these Insects.

These Insects, so far as a man may perceiue, seeme not to haue either sinewes or bones, no chine nor gristle, no fat, no flesh, ne yet so much as a tender and brittle shell, as some Sea-fishes haue, nor that which may be truly called a skin, but a certain corporal substance of a middle nature between all these: for their body without, is like a dry thing, and yet more tender and soft than a sinew: whereas in all other parts the matter is to be accounted rather drie than

than hard. This is the very substance whereof they consist, and nothing haue they besides. For within there is nought, vnlesse it be in some very few, who haue a certaine pipe or conduit in stead of a gut, & the same wrapped and infolded together. Which is the cause, that if they be cut in two and pulled in pieces, yet they haue a speciall property to liue long, and each part a-funder wil pant & stir by it selfe. The reason is, because the vitall vertue in them (whatsoeuer it is) is not seated in any one member, this or that, but spread and defused throughout the whole body, and least apparent in the head, of all other parts: for, that alone, vnlesse it be plucked away together with the breast, moueth not one jot. No kind of creatures haue more feet than these: and the more they haue, the longer liue they when they be diuided a-funder; as we see by experience in the Scolopendres. Eies they haue, that is certain; & besides sight, they are not without the fences of feeling & tasting: some there be that smell, & a few that haue their hearing also. H

CHAP. V.

¶ Of Bees.

But among them all, Bees are principall, and by good right deserue especiall admiration, as being the only Insects ordained by Nature for mans vse. They gather hony, a most sweet, pleasant, fine, and wholesome liquor. They frame the hony combs, and work the wax, which serue for a thousand turns in this life. They indure pains continually, and dispatch their worke and businesse. They haue a policie and Commonwealth among themselves. They hold their feuerall counsels: and there is not a swarme or cast that they haue, without a king and capitaine of their owne: and that which is most admirable of all, there be ciuill fashions and customes among them. Moreouer, being as they are, neither tame and gentle, nor yet to be counted wilde and savage, yet (see the wondrous worke of Nature!) by the means of so little a creature, nay, a shadow rather (to say a truth) of the least creature, she hath effected a thing incomparable: what strength of sinewes, what force and puissance is able to countervail this so great industry and effectuell power of theirs? What wit and policy of man is answerable to their discreet and orderly course? Beleeue me, they passe them all, and in this one point surpasse, That all things are common among them, and nothing know they priuat and feuerall. What should we debate and make question any more as touching their breath? Why should wee dispute of their blood, which cannot chuse but be very little in such smal bodies? Let vs rather consider henceforth their wit, and the gifts of their mind. I

CHAP. VI.

¶ The naturall order and regiment that is in Bees.

Bees all winter time keep close within their hiues: and good reason, for how possibly should they indure hard frost and chilling snow? how should they abide the piercing blasts of the North winds? And verily it is the manner of all these Insects so to doe, but yet they keepe not in so long. For why? being nestled warm as they are within our houses, they sooner doe recover their vigor, & come abroad betimes. But as concerning Bees, either the times haue changed, & places altered their course, or els the writers beforetime of this argument haue greatly erred. They begin to retire themselves and take vp their wintering harbor, presently vpon the setting and occultation of the star Vergiliæ; and come not forth into the field againe, vntill after the rising and apparition thereof. So that Bees go not abroad at the very beginning of the Spring, as Writers haue set downe (for who seeth not the contrary throughout all Italie) but remaine still close and secrete, vntill that Beanes begin to bloom; before which time they settle not themselves to any worke or labour. But from thence forward, they lose not a day, they slack not their painful trauel, neither play they one jot, if the weather be faire & wil permit: the first thing they do, is to make their combs & wax, that is to say, their own habitations & store-houses. When they are prouided of lodging, they thinke vpon the multiplying of their owne kind: and finally, they gather and make both hony and wax: the substance whereof they sucke from the floures of trees and hearbes, from the gums also of trees which breed such glucie matter; and besides, out of the iuice, gum, and rosin of the willow, elme, and cane. With these and such like, they plaister all the hiue within throughout, as it were with a coat or parget, intermingling

A gling withall other iuices that are more vsauorie, gathered from the bitterest hearbs they can get: to the end that they might keepe out other little vermines that are greedy of their hony: as knowing full well, that they are about a piece of worke which is worth to be desired and sought after. Of this gummy and glutinous substance they frame also their dores and entries which are wide and large.

CHAP. VII.

¶ The proper termes belonging to their worke.

The first foundation of their worke, skilfull hony-masters do call Commosis: the second Pissoceros: the third Propolis, which lieth between those former coats and the wax of the hony-combe, whereof there is so great vse in Physicke. Commosis is the first coat or crust of a bitter tast. Pissoceros commeth next after it, as it were a thinner course of pitch or varnish and a weaker kinde of wax, made of the more liquid and mild gum of vines and poplars. But Propolis consisteth of a more solid matter, as hauing the strength of some floures withall: howbeit, as yet it is no full and perfect wax, but the foundation and strengthening of the combs: and serueth as a good defence against cold, and to stop the passage of waspes and such hurtful creatures as would do iniurie to the bees, for still a strong sent it carrieth, as which, many men do vse in stead of Galbanum. After this munition done, then followeth the prouision of that which is called Erichace, some terme it Sandarach, and others, Cerinthus. This must serue for the bees meat, whereof they are to liue whiles they worke: and found it is oftentimes, laid apart within the concavities of their combs, it being also of a bitter taste. Now this Erichace commeth of the * Spring-dew, and the moisture issuing out of trees in manner of gum: in lesse abundance euery when the South-west wind blows: but when it is full South, more blacke: and in the Northerly constitution, far better and more red withall. Great store hereof, Bees meet with vpon Almond trees. Menecrates saith, That it is a floure foreshewing what haruest shall insue: * but no man saith so besides him.

* Rore uernus;
or Sea-dew,
Rore marino.

* Being decel-
ued with the
Homonymic
of the word
Cerinthus,
which hath a
double signi-
fication.

CHAP. VIII.

¶ What flowers they be which Bees serue themselves most withall for their worke.

As for wax, Bees gather and make it of the floures of all trees, herbs, and plants, sauing the docke and * Goose-foot, which are two kinds of herbs. Some except also a kind of Broom called Spart, but vntruly: for in Spaine (where there be many places full of that shrub) the hony carrieth the strength thereof in the taste. I am besides of opinion, that they be deceiued who thinke that bees gather not of Oliue trees. For we see it ordinary, that there be more casts and swarms of Bees where Oliues grow in greater abundance. These pretty creatures hurt no fruit whatsoeuer. They will not settle vpon a floure that is faded, and much lesse of any dead carkasse. They vse not to go from their hiue about their busines about 60 paces: & if it chance, that within the precinct of these limits they finde not floures sufficient: out goe their spies, whom they send forth to discouer forage farther off. If in this expedition, before they come home againe, they be overtaken by the night, they couch vpon their backs for feare left their wings should be ouercharged with the euening dew, and so they watch all night vntill the morning.

* Chenopode;

CHAP. IX.

¶ Those that haue taken a speciall pleasure in Bees.

Such is the industrie of this creature, that no man need to wonder at those two persons who delighted so much in them, that the one (namely Aristomachus of Soli) for threescore yeares lacking but twaine, did nothing else but keep bees. and Philiscus the Thasian employed the whole time of his life in Forrests and Defarts, to follow these little animals: whereupon hee was surnamed Agrius. And both these vpon their knowledge and experience, wrote of Bees.

¶ *The order that they keepe in their worke.*

The manner of their businesse is this. All the day time they haue a standing watch & ward at their gates, much like to the *corps de guard* in a campe. In the night they rest vntill the morning: by which time, one of them awaketh and raiseth all the rest with two or three big hums or buzzes that it giues, to warn them as it were with sound of trumpet. At which signall giuen, the whole troupe prepares to flie forth, if it be a faire and calme day toward, for they doe both foresee, and also foreshew when it will bee either windie or rainie, and then will they keepe within their strength and fort. Now when the weather is temperate (which they foreknow well enough) and that the whole armie is on foot and marched abroad, some gather together the vertue of the floures within their feet and legges: others fill their gorge with water, and charge the downe of their whole body with drops of such liquor. The yonger sort of them go forth to worke, and carry such stuffe as is beforenamed, whiles the elder labor & build within the hiue. Such as carry the floures abovesaid, stuffe the inner parts of their legs behind (and those Nature for that purpose hath made rough) with the help of their forefeet: & those again are charged full by the means of their muffle. Thus being full laden with their prouision, they returne home to the hiue, drawne euē together round as it were in a heap, with their burden: by which time, there be three or foure ready to receiue them, and those ease and discharge them of their lode. For this you must thinke, that they haue their feuerall offices within. Some are busie in building, others in plaistering and overcasting, to make all smooth and fine: some be at hand to serue the workemen with stuffe that they need; others are occupied in getting ready meat and victuals out of that prouision which is brought in: for they feed not by themselves, but take their repast together, because they should both labour and eat alike, and at the same houre. As touching the maner of their building, they begin first aboue to make arch-work embowed, in their combs, and draw the frame of their work downward, where they make two little allies for euery arch or vault, the one to enter in by, the other to go forth at. The combs that are fastened together in the vpper part, yea and on the sides, are vnited a little, and hang all together. They touch not the hiue at all, nor ioine to it. Sometime they are built round, otherwhiles winding bias, according to the proportion of the hiue. A man shall find in one hiue hony combs sometime of two sorts: namely, when two swarms of bees accord together: and yet each one haue their rites and fashions by themselves. For feare lest their combs of wax should be ready to fall, they vphold them with partition wals, arched hollow from the bottom vppward, to the end that they might haue passage euery way to repaire them. The formost ranks of their combs in the forefront, commonly are built void and with nothing in them, because they should giue no occasion for a theefe to enter vpon their labours. Those in the backe part of the hiue, are euē full of hony: and therefore when men would take out any combs, they turne vp the hiues behind. Bees that are employed in carrying of hony, chuse alwaies to haue the wind with them, if they can. If haply there do arise a tempest or a storm whiles they be abroad, they catch vp some little stony greet to ballance and poise themselves against the wind. Some say, that they take it and lay it vpon their shoulders. And withall, they flie low by the ground vnder the wind when it is against them, and keep along the bushes, to breake the force thereof. A wonder it is to see and obserue the manner of their worke. They mark and note the flow-backs, they chastise them anon, yea, and afterwards punish them with death. No lesse wonderful also it is to consider how neat and clean they be. All filth and trumperie they remoue out of the way: no foule thing, no ordure lieth in the hiue to hinder their businesse. As for the dounge and excrements of such as are working within, they be laid all on a heap in some by-corner, because they should not goe far from their worke: and in foule weather (when otherwise they haue nought to do) they turne it forth. Toward euening, their noise beginneth to slacke and grow lesse and lesse: vntill such time as one of them flieth about with the same loud humming, wherewith he waked them in the morning, and thereby giueth a signal (as it were) and commandement for to go to rest: much after the order in a camp. And then of a sudden they are all hush and silent.

¶ *Of the drone Bees.*

The houses and habitations that Bees build first, are for the Commons: which being finished, they set in hand with a pallace for their king. If they foresee that it will be a good season, and that they are like to gather store of prouision, they make pavilions also for the Drones. And albeit they be of themselves bigger than the very bees, yet take they vp the least lodgings. Now these drones be without any sting at all, as one would say vnperfect bees, & the last fruit of such old ones as are weary and able to do no more good, the very later brood & increase, and to say a truth, no better than slaues to the right bees indeed. And therefore the others as master Bees ouer them, haue them at their commandment: if any drudgery or such like businesse is to be don, out are they sent first: make they but slow hast in that they are set about, sure they are to pay for it, and to be punished without mercy. And not only in their ordinarie worke they serue them in good stead, but also they help them to multiply: for the hotter that the place is, the more hope there is of a greater increase. Certes, this is found by experience, That the better the hiue is peopled with a number of bees, the Cast when time comes will bee the greater, and the oftner will they swarme. But after the hony is growing once to maturitie and perfection, then begin they to driue these drones out of doores: may, we shall haue many bees set vpon one poore drone, and kill him out-right. So that a man shall not lightly see any of that kind but in the Spring time.

If one pluck off the wings from a drone, and put him again within the hiue, he will neuer lin vntill he haue done the like by all the rest of the same kind. As touching the roiall pallsaces for the kings and captaines that shall be, built they are all most stately, great of receipt, in shew magnificent, seated by themselves apart, and like citadels raised vpon some high knap or tuft of a mountaine. If one of these castles chance to be pressed or crushed, there will no more come of that princely race. All the lodgings and roomes where the bees abode is, are six cornered, according to the number of feet employed in that worke. None of all this is done at any set time or day appointed: but they take the opportunity when they can espie faire weather to fit their businesse, and so do these things by snatches. And surely within a day or two at the most, they fill their store-houses with hony.

¶ *The Nature of Hony.*

This pleasant and sweet liquor which we call hony, is ingendered naturally in the aire, and especially by the influence and rising of some starres: but principally during the feruent heat of the canicular daies, euē when the Dog-star is in his full power and force: neuer before the appearing of the star Virgilie, but alwaies before day. For so about the day breake betimes in the morning, the leaues of trees are found bedewed with honey: and looke who-soeuer they are, that haue occasion to be abroad in the aire about the dawning of the morrow, they may euidently perceiue their cloths wet with a clammy humor of hony, yea, & their hairs glewed therewith together, if they go bare headed. Be it what it will, either a certaine sweat of the skie, or some vnctuous gelly proceeding from the stars, or rather a liquor purged from the aire when it purifieth it selfe: would God we had it so pure, so cleare, and so naturall, and in the own kind refined, as when it descendeth first, whether it be from skie, from star, or from the aire. For euē now such as it is, passing as it were through so many hands: namely, falling from a region so high and remote from vs, and in the way as it commeth catching much filth: and namely, infected with the grosse vapour of the earth which it meeteth in the fall: moreouer, sucked up in their little bellies or bladders (for at their mouth they spew and cast it vp againe) corrupted also and sophisticated with other humors drawn out of floures: finally, so long soking within the hiues, and suffering so many alterations: yet for all the forrow, a great resemblance it carrieth still with it of a most pleasant, sweet, and coelestiall liquor.

CHAP. XIII.

¶ The best kinde of Honie.

The best hony is euer there, where the best floures are; within the receptacles whereof, it lieth. As we may see in the country about Athens, which carrieth the name for honey: also in Sicilie within those territories about Hymettus and Hybla: and lastly, in the Isle Cadydna. Now this hony, whereof we treat, is at the first cleare and thin as water; and for certaine daies in the beginning, it workes and boiles like to new wine, and so purgeth it selfe. By the 20 day it getteth a certaine consistence and thicke substance, and soon after gathers a thin cream or skin ouer it: which in the very heat of working, is raised of a scum, and so thickneth. The best simply that bees can sucke, and least infected with the corruption of 3 branches, is that which they get out of the leaues of Oke, Tilia [*i. Linden tree*] and Canes.

CHAP. XIII.

¶ The sundry sorts of hony, according to diuers regions.

Honie (as we said before) is better or worse, according to the region where it is gathered; and that in many respects. For in some place ye shall haue goodly combs: howbeit, more commendable for wax than the hony in them: as in the Pelignians country, and Sicily. In others, and namely in Candie, Cypres, and Africk, the combs yeeld more hony than wax. Some countries there be, especially in the North parts, where the combs passe for bignesse: in so much as in Germany there hath bin a hony-combe seene eight foot long, and blacke all within. But in what region soeuer it be that hony is found, three kinds there be of it. First, the Spring hony made of floures only; like as the comb also: and thereupon the Greeks call it Anthinon, which is as much to say as the Floure-hony. Some would not haue this to be once touched, but to serue for nourishment of the young bees, that the swarmes or casts may be more strong and lustie. Others againe leaue for the bees of none lesse than of it: by reason of the great plenty like to follow, at the rising of those notable stars in the Summer ensuing. Moreover, the combs are in their principall beauty about the Sun-stead in summer, when daies be longest, at what time as the Vine and Time do begin to floure. Also, in taking forth of the hony combs, needfull it is to be well aduised in ordering the matter for the prouision of food for bees. If they be cut short and destitute of their meat, they either despaire and die for want, or els depart and flie away. Contrariwise, if you leaue them too much, plenty breeds idleness, that they will not labour: neither deigne they to feed of Erithace, their ordinarie food, but fall to the good hony. They therefore that be well experienced in these matters, thinke it good to leaue them the twelfth part of this store and vintage, if I may so say, which is gathered in the combs. And verily, it seemeth that Nature hath ordained a certaine set day for to begin this vintage, if men would take knowledge thereof, and marke it well; namely, the 30 day, after the bees swarmed and went forth: and vsually it falleth out, that this gathering commeth within the moneth of May. A second kind of hony there is, which we call Summer hony, and is named also Horæum, of that principall season wherein it is made, namely, in the very midst of dog-daies, when the star Sirius is in his full strength: and that commonly is 30 daies after the Sun-stead. And I assure you, Nature hath shewed her admirable and excellent power to men ward in this behalfe: in case their fraud and deceit would suffer her works in their entire and proper nature without corruption and sophistication, which marreth all, and maketh nothing but confusion. For vpon the rising and apparition of any star, and especially of those that be more excellent than the rest, or after that a rainbow is seen aboue the earth, and no showers of rain presently follow, but a drizzling dew warmed with the raies and beams of the Sun: ye shall haue that which falleth, not to be are hony, but a very medicinable thing, euen a celestiall gift, singular good for cyes and vlcers, yea, and comfortable to the principall noble parts within the body. And if this happen to be at the rising of the dog-star, and it chance withall, that vpon the same day (as oftentimes it falleth out) Venus, Iupiter, or Mercury bee Orientall, then shall yee haue so heauenly a sweet liquor, that no one thing in the World may bee comparable to it for the curing of all our maladies, and euen to reduce and recouer vs backe from death vnto life, like vnto that celestiall and

A and diuine Nectar, which immortalizeth the gods aboue.

CHAP. XV.

¶ The markes of good hony.

More plenty of hony is gathered in the full of the Moone, than at any other time: and if therewith the weather be faire, the same wil be more vnctuous and fattie. In all kinds, the best hony is that, which runneth of it selfe as new Vine and Oile; and called it is Acedon, as a man would say, gotten without care & trauell. All Summer hony is red, as being made in the driest season of the yere. The hony which commeth of Time, is held to be the best and most profitable, in colour like gold, in tast right pleasant; euident to be knowne by the little leaues therein: and the same is likewise fattie. That which is made of Rosemary, or within the aire and vapour of the sea, is thick: and such verily as is thus candied, and will not run like life-hony, is nothing commendable. As for Time honey it will not thicken: and if a man touch it, rope it wil and draw small slimie threds after it: which is a principall signe of the weight and heauinesse thereof. If hony be short in the handling, and soon breake, and that the drops part one from the other, it is thought to be a token of the worst and courtest of all. Another triall there is besides of good hony, namely, if it be fragrant and odoriferous to smell vnto, sweet in taste, & biting withall, or quick at the tongues end, glutinous and cleare. As touching the druing of hiues for summer hony, *Thasius Dionysius* is of opinion, that the tenth part thereof should be left for the bees, namely, if they were full: if not, then according to the proportion: but if they were but light and very thin, he would not haue them to be touched at all. The Athenians goe by this rule, and do obserue duly the Capricifical day, which is kept wholly vnto *Vulcan*: for then they euer begin to drue their hiues for this kind of honie.

CHAP. XVI.

¶ Of a third kinde of Honie: and how a man should know good Bees.

There is a third sort of wild hony, which the Greeks call *Ericæum* [*i. Heath or Ling hony*] and is of least reckoning. It is gathered after the first rain in Autumne, when the heath and lings only bloom in the woods, wherupon it seems as if it were sandy. This kind of hony is ingendred for the most part after the rising of Arcturus, much about the Ides of September. Some there be that continue in gathering Summer hony to the rising of Arcturus: betwene which and the Autumne Equinoctial are 14 daies, & from thence vnto the setting of Virgilie (namely, for the space of 48 daies) the said heath is most in his blooming time. This shrub the Athenians call *Tetralix*; the Euboeans name it *Sifara*; & they repute it to be a floure most pleasant to bees, haply, because at that time there is no plenty of other floures. This gathering of hony is about the end of vintage, & the occultation of the Vergilia: & commonly ends by the Ides of Nouember. In druing of the hiues for this hony, by good reason, two [third] parts thereof would be referred for the bees: & especially those corners of the combs, which haue in them the prouision called Erithace. From the mids of winter to the rising of Arcturus, for 60 daies bees are nourished only with sleep, without any other food. But from that time vnto the spring equinoctial, and namely, where the weather is more warm, they are awake. Howbeit, they lie still in their hie, & then fall to their victuals which they had laid vp in store against that time: but in Italy they do the like indeed after the rising of the star Virgilie: howbeit, till then they do nothing but sleep. And there verily, men vse when they take the hony forth of the hiues, to weigh the combs, and so by weight dispense & set out how much they will leaue them for their food: hauing this opinion, that they are bound to deale in justice & equity euen with the very bees: in so much, as it is commonly said, if they be defrauded of their due in this society & part-taking, and find falshood in fellowship, they wil die for griefe: & so both the old stock will be lost, and the hope also of a new increase. In the first place therefore, this is a rule, that such folk only be set about this businesse to drue the hiues, who are neat & clean. A theefe & a woman whiles she is in her monthly sickness, they abhor. In the taking out of hony, the best means to drue away the bees, is to smoke them out of the hie: lest that you anger them, or that they deuoure the honie themselves with more greedines. Moreover, when they grow to be idle, perfuming & smoking,

of them thus now and then, maketh them more fresh to go about their worke. For when they lie still and doe nothing, they make their combs looke dead and blackish. Again, if they be o-uermuch smoked, they will be the worse for it; and surely, the very hony soon catcheth the hurt hereof, for so tender and weake will it be, that with the least dew that is, you shal haue it to turne and wax foure. And therefore in all kinds of hony they obserue and keepe that which is called Acapnon [i. without smoke.] The hony gathered of both sorts of Thyme, called thereupon Bithymum, is not white: howbeit, very good it is for eies and to cleanse vlcers.

Now as touching the generation of Bees, and how they multiply and increase, much dispute there hath bin among the learned, and a nice question this is. For first and foremost, bees were neuer seen to ingender one with another: and therefore most men haue bin of opinion, that yong bees must needs be made of floures fitly and hand somely laid together and composed, according to Natures lore. Others say, that one master Bee which is the king in euery swarme, doth beget them all: and that he forsooth is the only male; bigger also than the rest and more strong, because he should not faint and faile in the action: for without such an one, we see there is no breed: and him all the other bees attend vpon, not as their leader and captain, but as the female follow the male. Certes this were a good coniectural opinion, and founding to a truth, but that the breed of these Drone-bees aforesaid, doth checke and ouerthrow it cleare: for what reason is there that one and the same maner of procreation, should bring forth some perfect & others vnperfect? The former opinion yet might seeme more probable, but for another difficulty and inconuenience that crosseth it too; for otherwhiles in the vtmost edges and sides of the combs, there are seen to breed the bigger kind of bees, which chase and driue the others away: and this vermin is called Oestrus [i. the gad-bee or horse flie.] Now, if those little wormes or grubs from whence the bees come, were made of floures, which they themselves formed and brought into fashion, how commeth this gad-bee, and whereof is he made? This is certaine, that bees couvy and sit as hens do: and that which is (after a sort) by them hatched, seemeth at the first to be a little white grub or magot, lying crosse ouerthwart the hony, and so fast sticking thereto, as if it seemed to feed thereupon. The king that shal be, at the very first is yellow, and of the colour of hony: as if he were made of the most choise and excellent floure of all the rest: nothing like to a grub as the other, but presently hath wings. The rest of the multitude, when they begin to take some shape, are called Nymphæ: like as the Drones, at the beginning, be termed Sirenes or Cephenes. If a man take their heads from either sort, before they be winged, it is a most pleasant and excellent meat for the old dams. In proesse of time as they grow bigger, the old bees distill and drop meat into their mouths, as they sit vpon them: then they keepe most humming (as some thinke) for to set combs into an heat, which is requisit and necessarie for the hatching of them: and thus they continue, till the little pellicles or membranes be broken: within which, euery one lieth by it selfe, as eggs: and then they break forth all together and shew themselves accomplished bees. The manner and experiment hereof, was seene vpon a time in a ferme neere vnto Rome, belonging to a nobleman of Rome who sometime had bin Consul: for he caused his hives to be made of lanterne horns that a man might see through into them. These yong worms be 45 daies before they come to their perfection.

There is found in some combs, a certain bitter thing and hard like to wax, which the Latines call *Clerus*. This is as it were the abortiue and vntimely fruit of the bees, to wit, when either by maladie or idlenesse, or rather vpon some barrenesse and vnfruitfull disposition by nature, bees are not able to bring the same to perfection.

As for the yong bees, they are not so soon abroad, but they begin to labor with their mothers, and are trained by them to learn how to gather hony. This yong people haue a yong king also: vnto whom they make court, and whom they follow. And many such kings are bred at first, for feare lest they should want: but when the bees are grown big, they all agree with one accord and voice, to kill those that be most vntoward among them, for feare they should make diuisions, factions, and siding to parts. These kings be of two sorts: those that are red all ouer, be better than the black or partie-coloured. All the race of them be very faire and goodly to see to: and twice as big as the rest: their wings shorter, their legs straight in their port and manner of march, more stately: carrying in their front a white star, like a diadem or coronet: far brighter also and more neat they be than the common sort.

CHAP.

CHAP. XVII.

¶ The regiment of Bees, and their government.

What shall a man now dispute about *Hercules*, whether there was but one of that name or many? Likewise as touching the Sepulchre of Prince *Bacchus*, where and which it is? As also trouble his head in many other such like antiquities, buried by long continuance of time. For behold, in one small matter that is daily seene in our country houses, in a thing annexed to our fermes, and whereof there is such store, all Authors who haue written of Agriculture are not yet resolued: namely, Whether the king of Bees alone hath no sting, and is armed only with majestie? or, whether Nature hath bestowed a sting vpon him, and denied him only the vse thereof? For certaine it is, that this great commander ouer the rest, doth nothing with his sting: & yet a wonder it is to see, how they all are readie to obey him. When hee marches abroad, the whole armie goes forth likewise: then they assemble together, and enuiron him round about; they are of his guard, & so close they keep vnted together, that they wil not suffer him once to be seen. At other times, when all his people are busie in labor, himselfe (as a right good captain) ouerseeth their workes, goes about from one to another, encouraging them in wel doing, and exhorting them to plie their businesse: himselfe only exempt from all other travail & pains taking. About his person he hath a certaine guard euer attendant: he hath his Lieutors & officers alwaies in readinesse, in token of majestie and princely port. He neuer sets forward, but when the whole swarme is prest likewise to goe forth: and in truth, long time before a man may perceiue that they be about a voiage and expedition; for, many daies together there is an extraordinary humming and noise within, whiles they prepare to dislodge, trussing vp as it were their bag and baggage, and expecting only a faire day of remoue. And suppose that the king haue in some battaile lost one of his wings, yet will not his hoast forsake him and flie. When they be in march, each one desires and strues to be next the prince, as taking a joy and pride to be seene of him; how lustily they performe their deuoir. If he begin to be wearie, they support him with their shoulders: if he be tired indeed and faint outright, they cary him full and whole. If any one of their owne companie chance to faile for very wearinesse, and doe drag behind, or stray aside and wander out of the way, it will yet endeavour to follow the armie only by the smell and sent. Where the king once settles and takes vp his resting place, there they all pitch downe their tents and encampe. And I assure you, herein lieth a matter of great weight and importance; as touching the Auguries and presages gathered by the manner of their settling, prognosticating both to publicke states and also to priuat persons, something to ensue of much moment, either for good or otherwise, according as they haue been obserued to hang together in clusters like bunches of grapes, either at mens houses, or on the temples of the gods. By occasion whereof, folke had recourse to their deuotions and sacrifice, for to appeale the heavenly powers: and yet oftentimes such foretokens haue not bene expiat without some strange events in the end. There was a swarme of Bees rested vpon the very lips and mouth of *Plato*, when he was but a very babe & infant; foreshewing (no doubt) that singular eloquence of his, and sweet vtterance that afterwards he had. Another cast of Bees settled within the very camp of General *Drusus*, the very same day, when he obtained that notable victorie at *Arbalo*. By which examples we may see, that this coniecturall skill and learning of these Soothsayers holds not alwaies, nor proues euer true: for they forsooth suppose this to be euermore a portentous signe of some fearfull euent and misfortune. To returne again to our capitaine Bee: if he chance to be entraped and surprized by the enimie, the whole armie is sure withall to be taken with him. If he be defeited & slain, the field is lost: all the rest be scattered, and seek their fortune to serue some other prince: for without one king or other, liue they cannot. Sometime they are driven to kill those of the kings race, and namely when there be many kings together: but this they doe perforce and full against their wills: and before they will so do, they chuse rather to reuiue and build down the houses wherein they were bred, especially when there is some feare of staritie. By reason of the vnkind season: and at such a time also, they chase and driue away the drone bees. And yet I see some doubt made of them: for diuers be of opinion, that they be a kind of Bees by themselves, and that the rest do set against them as very theeues. The biggest they are of all others, but blacke and broad bellied: good reason therefore that they should be

be called Theeues, because they come stealing and eat vp their honey. Certaine it is, that these G drones be killed by the other Bees: and surely, king of their owne they haue none. But how they should be naturally without a sting, there is some question, & the same as yet not determined. This is well known, that in a moist and rainie spring, Bees multiply better: but if it be drie weather, there will be more increase of hony. Now if it happen, that the meat in one hieue be spent, the Bees belonging thereto will assaile their next neighbors, with intent to rob & spoile them of their prouision. But they on the contrarie side, put themselves in battel aray, with full intent to take them againe. And if there chance to be a keeper by, to see the combat, that part which perceiues him to fauor their side, wil not once make at him for to sting him. Other causes there are besides, which make them often to go together by the ears, & then shall ye haue seuerall H captaines to arange their battalions one against another. But most of all they brawle and jar vpon occasion of gathering and carrying floures, whiles they call each one to his owne companie, for to come forth and take part. But all this great fray is soon parted and dispatched, either by casting vp some dust among them, or by making a little smoak & perfume vnder them. And reconciled soone they be againe, with setting before them a messe of milke, or honied-water.

CHAP. XVIII.

¶ Of the sundrie sorts of Bees in generall: and what things be contrarie and hurtfull vnto them.

There is a kind of rusticall and wild Bee: and such are more rough and hideous to see to: I much angrier also and curst than the rest: howbeit, more laborious and painfull by farre. Of domestical and tame house-Bees, there are two sorts. The best be those that are short, well trust vp and round, and withall, painted with sundrie colours. The long ones be the worse, and such as resemble waspes: and yet the worst of all others, be those that are hairie all ouer. Within the kingdome of Pontus there be white Bees, and those make honey twice in euerie moneth. Moreouer, along the riuer Thermoodon, there be two sorts more. The one, gathers honey in trees: others, within the ground, and bring great encrease thereof: for they frame their combs with a threefold course and ranke. The sting that Nature hath giuen vnto Bees sticketh within their bellies. Some are of opinion, that with the first pricke they giue with it, they die K presently. Others hold, that they die not withall, vnlesse they thrust it forth so far, that some of the gut follows after: many howsoeuer it be, they become afterwards no better than drones: neither gather they any more honey, as if they were gueldd of their vigor and strength: so as they cease to doe good and harme both at once. We find it written in Chronicles, that horses haue been stung to death by them. Filthie stinking fauors they cannot abide, and namely, such as be contagious; and from them will they flie farre enough. Nay more than that, sure they will be to haunt & sting them that smell as they go of sweet pomanders and odoriferous ointments, notwithstanding they be otherwise themselves subject to the injuries of most liuing creatures. For first and foremost, they are molested and assailed by those of their owne nature, but yet degenerate and of bastard breed, to wit, Waspes and Hornets: also by a kind of Gnats called M. Liones, Swallowes, Martins, and some other birds, make foule worke among them, and are their mortall enemies. The Frogs lie in wait for them as they come to drink: which is the principall worke they haue to doe, when they be about to multiply and breed yong. And not those Frogs only which keep in standing pooles and running riuers, but those land-Frogs of a Todes kind will come of their owne accord from out of the brambles and briers where they keep, and leap vp to the very dore and entrance of the hieue, were they wil blow and breath in vnto them: and when the Bees come flying forth thither, to see what the matter is, soone are they snap vp and deuoured. And as for Frogs, all the sort of them are supposed not to feelee the pricke of their sting. Sheep also are no friends of theirs: for if they be once intangled within their wool, hardly can they get out again. Seeth but Crab-fish neer to their hieues, the very aire & smell thereof will M kill them.ouer and besides, Bees naturally are many times sick: and that do they shew most euidently: a man shall see it in them by their heauie looks, & by their faintnesse in their busines: ye shall mark how some will bring forth others that be sicke and diseased, into the warme sun, and be readie to minister vnto them & giue them meat. Nay, ye shall haue them to carie forth their dead, and to accompanie the corps full decently, as in a solemne funerall. If it chanceth the

A theking be dead of some pestilent malady, the commons & subiects mourn, they take thought and griue with heauy cheere and sad countenance: idle they be, and take no ioy to doe any thing: they gather in no prouision, they march not forth; onely with a certaine dolefull humming they gather round about his corps, and will not away. Then requisite it is and necessarie to seuer & part the multitude, and so to take away the body from them, otherwise they would keep a looking at the breathlesse carcasse, and neuer go from it, but stil moan and mourn without end. And euen then also they had need be cherished and comforted with good victuals, otherwise they would pine away & die with hunger. To conclude, a man may soon know when Bees be well in health, by their cheerfulnesse and fresh hue that they carry.

CHAP. XIX.

Diseases of Bees.

There be diseases also and imperfections in their worke: and namely when they fill not their combs, or bring not to perfection their yong Bees. The first is called Cleros, like as the other Blapsigonia. Moreouer, the sound made by reuerberation of the aire, which men call Eccho, is hurtfull vnto them, for they feare mightily that resounding noife comming with a double stroke. Mists & fogs also trouble them much: as for spiders, they be their greatest enemies of all others, in case they can preuaile so much as to enter into the hieue & weaue a copweb within it: for they kil all the Bees, and there is no remedie against it. Again, that Moth or Butterfly which vseth to fly about the snuffe of a candle burning, (a poore silly flie otherwise, and of base account) here doth much hurt, and that in diuers sorts; for not only it self eateth and gnaweth the wax of their combs, but also doth blow and leaue behind them such excrements as afterwards proue other moths. Also, where soeuer he goes and flies within the hieue, he leaues behind him a certaine substance, comming most from the dusty downe of his wings, with which he thickeneth the threds as it were of copwebs. There breed likewise euen in very wood certain worms, which aboue all things make means to eat the combs. What should I speake of their owne greedy feeding and glutting themselves with too much liquour of the floures, in the Spring time especially? whereupon ensueth a dangerous flux and loosnesse of their belly. As for oile, it is not bane to Bees only, but also to all other Insects: especially if a man dip their heads in it, and then let them be in the Sun, for presently they wil die of it. Many times Bees are causers of their own death, with getting a surfer by excessive deuouring of hony, namely when they see it ready to be taken out of the hieue: for otherwise they are very thrifty ouer-great sparsers, and such, as at other times will driue out those that wast prodigally, and be gluttinous, no lesse than such as be idle lunks, and slow at work. Nay, euen their own honny doth them hurt; for if they be anointed therewith in their hinder parts, they will die vpon it. Lo how many enemies this creature, so liberall and bountifull, hath! see how many casualties it is subiect vnto! and yet what be these I haue already rehearsed, in proportion and comparison of those which are omitted. Their remedies will we speak of in conuenient time and place: for this present content I will my selfe to treat only of their natures.

CHAP. XX.

¶ How to keepe Bees to the hieue: and the manner of repairing them.

Bees ioy in the clapping of hands, and ringing of brasen basons: at the sound thereof they will assemble and come together: wherby it is plain, that they haue the sence of hearing. When they haue done their taske of worke; when they haue brought forth their young ones, and fully accomplished all their deuoir, then they perform a solemnitie of exercise whether in after they haue flown abroad in the open aire at libertie, fetched their compasse about on high, gathered into rings and rounds in manner of tournament for their pleasure: then at last when it is time of repast they return home again. The longest time that they can liue (say that they passe through all dangers, and no misfortune light vpon them, but euery thing that is aduerser fall out well and happily) is not aboue feuen yeares. And neuer was it knowen or heard of, that an hieue continued aboue ten yeares. Some Writers be of opinion, That dead Bees if they be kept within a house all a Winter, and when the Spring is come be laid forth in the hot Sunne

Sun to fry, and one whole day be kept couered all ouer with fig tree ashes, they will reuiue and be quick again. But suppose they be not only dead, but their bodies also lost and gon, some say they may be repaired, and a new swarm ingendred, by laying the fresh panches of oxen or kine newly killed, with the dung, garbage and all, within a dunghill there to putrifie. *Virgil* affirms, that the carcasses of any yong steers will do the same: like as dead horses will bred waspes and hornets: and Aspes carrion turne to be Beetle flies, by a certain metamorphosis which Nature maketh, from one creature to another. And yet there be none of all these but are seen to engender: howbeit the manner of their breed is much after the nature of Bees.

CHAP. XXI.

¶ Of Wasps and Hornets.

Wasps vse to build their nests on high of earth and clay, and therein make their roomes and cels of wax. Hornets, in caues and holes vnder the ground. All these verily haue their chambers made with six corners, and yet their nests consist of some barke and substance like cobwebs. And as they be a barbarous and sauage kind of creatures, so their yong is not vniforme: one is ready to fly abroad, while another is but yong & not fledge, and a third a meere worrne and grub still. All these breed in Autumne, and neuer in the spring. When the Moone is in the full they increafe maruellously. As for the little waspes, called *Ichneumon*es (and lesse they be than others) they vse to kill one kind of spiders, called *Phalangia*, and carry them into their nests: they besmeare them all ouer with a liniment, sit ouer them, and so create their own kind. Moreover, all the sort of these liue vpon flesh, contrary to the manner of Bees, which will not touch a dead carcassee. But waspes hunt after the greater flies, and when they haue whipt off their heads, carry away the rest of their bodies for their prouision. The wild Hornets vse to keep in hollow trees: all winter time, like other Insects, they lie hid, and liue not about two yerres. If a man be stung with them, hardly he escapes without an ague: and some haue written, that 27 prickes of theirs will kill a man. The other Hornets which seeme to be the gentler be of two sorts: the lesse of body do worke and trauell for their liuing, and they die when winter is come; but the greater sort of them continue two yerres: and those also are nothing dangerous, but mild and tractable. These make their nests in the spring, and the same for the most part hauing foure dores or entries vnto them, wherein the lesser labouring hornets aboue said are ingendred. When those are quick, brought to perfection, & gorten abroad, they build longer nests; in which they bring forth those that shall be mothers and breeders; by which time those yong hornets that worke be ready to do their businesse and feed these other. Now these mothers appeare broader than the rest, and doubtfull it is, whether they haue any sting or no, because they are neuer seen to thrust them forth. These likewise haue their drones among them as well as Bees. Some think, that toward winter these all do lose their stings. Neither Hornets nor Waspes haue kings or swarmes, after the maner of Bees, but yet they repaire their kind, and maintaine their race by a new breed and generation.

CHAP. XXII.

¶ Of Silk-wormes: the *Bombylius*, and *Necydalus*. And who first inuented silke cloath.

Fourth kind of flie there is breeding in Assyria, & greater than those aboue named, called *Bombyx* [i. the Silke-worme.] They build their nests of earth or clay, close sticking to some stone or rock, in manner of salt; and withall so hard, that scarcely a man may enter them with the point of a spear. In which they make also wax, but in more plenty than bees: and after that, bring forth a greater worrne than all the rest before rehearsed. These flies ingender also after another sort; namely, of a greater worrne or grub, putting forth two hornes after that kind: and these be certain canker-wormes. Then these grow afterwards to be *Bombylij*; and so forward to *Necydali*: of which in six moneths after come the silke-wormes *Bombyces*. Silk-worms spin & weaue webs like to those of the spiders, and all to please our dainty dames, who thereof make their fine silks and veluets, forme their costly garments and superfluous apparell, which are called *Bombycina*. The first that deuised to vnweaue these webs of the silke-worme,

A worme, and to weaue the same againe, was a woman in Coos named *Pamphila*, daughter of *Laius*: and surely she is not to be defrauded of her due honor and praise, for the inuention of that fine filke, *Tiffanie*, *Sarcenet*, and *Cypres*, which in stead of apparell to couer and hide, shew women naked thorough them.

CHAP. XXIII.

¶ Of the Silkworme in Cos.

It is commonly said, that in the Isle Cos there be certaine Silkwormes engendred of floures; which by the meanes of rain-showers, are beaten downe and fall from the Cypres tree, *Terebinth*, *Oke*, and *Ash*: and they soone after doe quicken and take life by the vapor arising out of the earth. And men say, that in the beginning, they are like vnto little Butterflies naked; but after a while (being impatient of the cold) are ouergrowne with haire, and against the winter, arme themselves with good thick-clothes: for being rough-footed, as they are, they gather all the cotton and downe of the leaues which they can come by, for to make their fleece. After this they fall to beat, to felt & thicken it close with their feet, then to card it with their nails: which done, they draw it out at length, and hang it betweene branches of trees, and so kembe it in the end to make it thin and subtil. When al is brought to this passe, they enwrap & enfold themselves (as it were) in a round bal and clew of thread, and so nestle within it. Then are they taken vp by men, put in earthen pots, kept there warme, and nourished with bran, vntill such time as they haue wings according to their kind: and being thus well clad and appointed, they be let go to do other businesse. Now as touching the wooll or fleece which they haue begun, men suffer it to relent in some moisture, and so anon it is spun into a small thread, and a spindle made of some light Kex or Reed. This is the making of that fine Say, wherof silke cloth is made; which men also are not abashed to put on and vse, because in summer they would go light and thin. And so far do men draw back now a daies from carying a good corset & armor on their backs, that they think their ordinarie apparell doth ouer-lode them. Howbeit, hitherto haue they not medled with the Assyrian Silkworme, but left it for the fine wiues and dames of the city.

CHAP. XXIV.

¶ Of Spiders, and their generation.

It were not amisse to ioine hereunto a discourse of Spiders, for their admirable nature, which deserves a speciall consideration. Wherin, this is first to be noted, that of them there be many kinds, and those so well known vnto euery man, that needles is to be particularize & stand much vpon this point. As for those which be called *Phalangia*, their stinging and biting is venomous, their bodie small, of diuers colors, and sharpe pointed forward; and as they go, they seeme to hop and skip. A second sort be black, and their feet are exceeding long. All of them haue in their legs, three joints. The least of this kind, called *Lupi*, spin not at all nor make any webs. The greater, stretch forth their webs before the small entries into their holes within the ground. But the third kind of Spiders, be they which are so wonderfull for their fine spinning and skilful workmanship: these weaue the great and large cobwebs that we see; & yet their very womb yeeldes all the matter and stufte wherof they be made. Whether it be, that at some certain season naturally their belly is so corrupt (as *Democritus* saith:) or that within it there is a certain bed (as it were) which engenders the substance of filke. But surely whatsoeuer it is, so sure and steadie nailes the Spider hath, so fine, so round, and euen a thread she spinnes, hanging thereunto her selfe, and vsing the weight of her owne bodie in stead of a wherue; that a wonder it is to see the manner thereof. She begins to weaue at the very mids of the web, and when she hath laid the warpe, brings ouer the woofe in compasse round. The meshes and marks she dispenses equally by euen spaces; yet so, as euery course growes wider than other: and albeit they do increase still from narrow to be broader, yet are they held and tied fast by knots that cannot be vndone. Mark, I pray you, how artificially she hides the snares in that net of hers, made into squares, to catch the poore flies. A man would not thinke (who sees the long yarne in her web wrought ferce-wise, smoothed and polished so cunningly, and the verie manner of the woofe so glewish and clammie as it is, of it selfe) that all were to any purpose, and serued for that which she

she intends. See withall, how slacke and hollow the net is made to abide the wind, for feare of G breaking; and thereby so much the better also to fold and enwrap whatsoeuer coms within her reach! What a craft is this of hers to leaue the vpper part thereof in the front vndone, as if the were wearie (for so a man may guesse, when he can hardly see the reason) and (as it is in hunters net and toile) that so soone as those nets be stumbled vpon, they should cast the flies headlong into the lap and concauitie of the net? To come now vnto her nest and hole: Is there any Architecture comparable to the vault and arched frame? And for to keep out the cold, how is it wrought with a longer and deeper nap than the rest! What subtiltie is this of hers, to retire into a corner so far from the mids, making semblance as though she meant nothing lesse than that she doth, and as if she went about some other businesse! Nay, how close lies she, that it is impossible for one to see, whether any bodie be within or no! What should I speak of the strength H that this web hath to resist the pusses and blasts of winds; of the roughnesse to hold and not breake, notwithstanding a deale of dust doth weigh and beare it downe? Many a time ye shall see a broad web reaching from one tree to another: and this is when she learns to weaue & begins to practise and trie her skill. She stretches a thread, and warps in length from the top of the tree downe to the very ground; and vp again she whirles most nimble by the same thread, so as at one time, she spins and winds vp her yarne. Now if it chance that any thing light into her net, how watchfull, how quick sighted, how readie is she to run? Be it neuer so little snared euen in the very skirt and vtmost edge therof, she alwaies skuds into the mids; for so by shaking the whole net, she intangles the flie or whatsoeuer it be, so much the more. Looke what is slit or rent therein, she presently doth mend and repaire, and that so euen and small, that a man cannot see where the hole was derved and drawne vp again. These Spiders hunt also after the yong Lizards: first they enfold and wrap the head within their web: then, they catch hold and tweake both their lips together, and so bite and pinch them. A worthy sight and spectacle to behold, fit for a king, euen from the statly Amphitheatres, when such a combat chanceth.

Moreover, there be many prefiges and prognostications depend vpon these Spiders: for against any inundations and ouerflowings of riuers, they weaue and make their cobwebs higher than they were wont. In faire and cleare weather, they neither spin nor weaue, vpon thicke and cloudie daies, they be hard at worke: and therefore many cobwebs be a signe of raine. Some thinke, it is the female that spins and weaues; and the male, which hunts and gets in the prouision for the familie: thus ordering the matter equally in earning their liuing, as man and wife together in one house. Spiders engender together with their buttocks; & little worms they do lay like eggs. For, considering that the generation of all Insects besides, in a manner can be declared and shewed no otherwise, I must not deferre the relation therof, it being so admirable as it is. Well then, these eggs they lay in their webs, but scattering here and there, because they vse to skip and leap when they thrust them forth. The Phalangius only sits vpon the eggs within the very hole, and those in great number: which begin not so soon to peep, but they eat the mother, yea and oftentimes the father likewise, for he helps her also to coue. And these kind of Spiders bring commonly 300 at a time: whereas all the rest haue fewer. They sit ordinarily thirtie daies. As for yong Spiders, they come to their full growth and perfection in foure weekes. I

CHAP. XXV.

¶ Of Scorpions.

SEmblably, the land Scorpions do lay certaine little worms or grubs in maner of eggs: and when they haue so done, perish likewise for their labour, as the Spiders. Their stings be as venomous and dangerous, as those of serpents: and albeit there ensue not thereupon so present death, yet they put folke to more paine a great deale; inso much as they languish and lie drawing on three daies before they die. If a maiden be stung with one of them, she is sure to die of it: other women also for the most part catch their death thereby, and hardly escape. Yea and men also find their poison to be mortall & deadly, if they be stung in a morning by them when they creep newly out of their holes, fasting, & before they haue discharged their poison by pricking one thing or other first. Their sting lies in their tails, and readie they are with it alwaies to strike. There is not a minute of an houre but they practise and trie how they can thrust it forth, (so malicious they be) because they would not lose and misse the first opportunity presented vnto

A vnto them. They strike both fidelong or byas, and also crooked and bending vpward, with their taile. The poison that comes from them, is white, as *Apollodorus* saith, who also hath set downe 9 sorts of them, and distinguished them by their colours, which me thinks, was but superfluous, and more than needed; considering that a man cannot know by his discourse, which of them he would haue to be least hurtfull and noisome. He affirmeth, that some haue double stings, and that the males are more curst and cruell than the females: for he auouches, that they do engender together, and that the males may be knowne by this, That they are long and slender. Moreover, that they be all of them venomous about mid-day, when they be enchaufed and set into an heat, by the scalding and scorching sun: also when they be drie and thirstie, they cannot drinke their full and quench their drought. This is well known, that those which haue seven joints in their tails, be more fell than the rest: for it is ordinarie in them to haue but six. In Affrick, this pestilent creature vses to flie also, namely, when the Southerne winds blow, which carrie them aloft in the aire and beare them vp as they stretch forth their armes like oares. The same *Apollodorus* before-named auouches plainly, that some of them haue very wings indeed. The people called *Pylli* (who making a gainfull trade and merchandise of it, to bring in hither vnto vs the poisons of other countries, and by that meanes haue filled Italie with forrein venomous beasts) haue many times assaied to bring them hither; but neuer would they abide so much as the aire of Sicilie, nor liue in that tract. Howbeit we see of them now and then in Italie, but harmlesse they be all like as in many other places besides, and namely about *Pharus* in *Egypt*. C In * *Scythia* they be so dangerous, that they kill their hogs; which otherwise be creatures that can eat such poisons, and yet liue and do full well. And if it be true that is said, the black swine die more speedily, especially if after they be stung, they goe into the water and drench themselves. If a man be stung with a Scorpion and drinke the powder of them in wine, it is thought to be present remedie. Men hold, that nothing is more contrarie vnto them than oile, if they be dipped therein: as also to the *Stellions*, which are made like Lizards, and do no hurt to them only, because they are without blood. Like as the Scorpions also are said to be harmlesse to any thing that is bloodlesse. Some are of opinion, that they likewise deuoure their young, saue only one who is more slie and craftie than the rest, who gets vpon the rumpe behind of the mother, and there sits, being assured that hee is safe enough in that place, both from sting of taile D and tooth in mowth. This Scorpion reuenges the death of his other brethren and sisters: for in the end he skips vpon the backe of father and mother both, where he gnaweth and eateth them to death. To conclude, Scorpions vsually do breed eleuen young ones at a time.

CHAP. XXVI.

¶ Of Stellions and Grasshoppers.

THE *Stellions* after a sort be of the nature of *Chamaeleons*, liuing only vpon dew and Spiders. Grasshoppers liue also much after the same manner. And they be of two sorts, namely, the lesser, which come first, and die last: but those be mute. The latter breed, seldome or neuer flie: and those likewise are of two kinds. Such as sing aloud be named *Echetæ*; and the lesser sort of them *Tettigonia*: but those other are more shrill, and chant full merrily. The male Grasshoppers in both kinds, do sing: the females are silent. The people of the East countries make their food of them: euen the very Parthians, who otherwise abound in wealth. The hee Grasshoppers are the sweeter meat before the time of engendering: and the shee Grasshoppers afterward, by reason of eggs knotted within them, and those be white. They engender with their bellies vpward. They haue a certain roughnesse vpon their backs, which is very sharp, and therewith they worke a hollow gutter in the ground, as a nest to lay their eggs and breed in. At the first, appeareth a little worke or maggot; whereof coms afterward that which they call *Tettigometra*, as one would say, the mother of Grasshoppers, or the great Grasshopper. For about the Sunstead in Summer, the vtmost crust or case thereof breakerth, and then out they flie, and alwaies in the night. At the first, blacke they be and hard withall. Of all creatures that are known to liue, the Grasshoppers alone haue no mouth: in stead whereof, they haue a certaine sharp pointed thing in their breast (like vnto their tongues that carrie stings in their mouthes) and with it they sucke and lick in the dew. Their breast is full of little pipes, from whence commeth that ringing noise of the *Echetæ* which we do heare, as I haue aboue said. Moreover, their bellie is emptye

The Table to the second Tome

M V

Mu, a syllable that nources used to pronounce as a counter-charme to defend their babes. 300.l
Mud gathered in medicinable fontaines, how to be used. 412.i.
Mugwort the hearbe. See *Artemisia*.
Mulberry tree, the strange properties thereof. 170.b. the virtues of iuice and fruit. ibid.g.h
 the composition of *Mulberries*, called *Parchrestes* Stomaticke. 170.b. how it is made. 170.k.l
 other compositions of *Mulberries*. 170.k.l
Mullen, an herbe. See *Longwort*.
Mules, how they shall not kicke or winse. 400.b
Mules house of a strange nature. ibid.
Muliones, Gnats living but one day. 399.e
Mullet a fish, how crafty he is to avoid the danger of the booke. 428.g
Mulle, what it is. 136.m
Multipede, Many foot wormes. See *Cheeslips*. their venomous qualities how remedied. 139.e. 155.f. 323.d
L. Mummis, why surnamed *Achnicus*. 526.m
P. Munnatus committed for wearing upon his head the coronet of *Marfius*. 81.d
Mundificative medicins. 158.i. 160.g. 182.l. 193.b. 197.d. 319.b.c. 418.l. 471.e. 485.b. 509.a. 511.e. 516.b.k. 520.m. 591.d.
Murall chaplets. 115.e
Muralium. 111.e
Murre occasioned by a rheume, how to be discussed. 289.e. 377.f. See *Rheumes*.
Muria, the pickle, whereof it is made. 418.k. the nature and virtues thereof. ibid.
Muscarda, *Moufe* dung. 364.i
Mushromes, their wonderfull nature, and how they grow. 7.c
 being a sundry kinds of them. 7.c
 in biting a *Mushrome*, there was found a silver Roman Denarius. 7.d
 a discourse of *Mushromes*. 7.f
 obseruations touching *Mushromes*. 7.f. 8.g
Mushromes distinguished by the trees under which they grow. 133.a
Mushromes dangerous meat, and yet medicinable. ibid.b
 they be engendered in raine. ibid.e
Mushromes a perillous food. 133.g
Tiberius Clandius poisoned by the meanes of *Mushromes*. ib. their venomous qualities how they may be known. ib.
 the manner of *Mushromes* engndring. 132.b. when they may be gathered and eaten safely. ibid. how to be dressed that they may be eaten with securitie. 133.d
Annius Serenus, with others poisoned by *Mushromes*. ib. remedies against venomous *Mushromes*. 39.d. 43.b. 49.e. 51.a. 56.l. 74.g. 103.a. 113.c. 121.c. 133.d.e. 135.d. 153.b. 157.e. 166.i. 174.b.l. 232.g. 277.c. 363.e. 422.i. 433.e.
Musica, an Image of *Minerva*. 501.e
Muscles. 443.b
Mist or new wine of sundry kinds. 150.k.l. their properties. ib. their discommodities. ibid.
Mustard seed, what vertue it hath. 74.g
Mutianus, a writer. 404.b
Mutianus imagined that he preferred himselfe from blessed eyes, by wearing a line stie about him. 298.k

M Y

Myaces, shel-fishes medicinable. 442.l. their nature described. ib.m. the broth of these fishes hath many good operations. 443.a. the only inconvenience that cometh by them. ibid. of two sorts. *Mistuli*, *Mysca*. 443.b. their description. ibid.
Mysca be medicinable. ibid.
Myagros, an herbe. 286.g. the description and vertues. ib.
Mycon, a famous painter. 533.f. two of the name, the elder and younger. 534.g
Myiodes, the god or Idoll of flies. 364.k
Mylocos, a kind of Beele. 370.k. why so called. ibid. it is medicinable. ibid.
Myositiu, *Moufe*-eare, an herbe, why so called. 278.a
Myosoton, an hearbe. 272.m
Myrmecias, a pretious stone. 628.k
Myrmecidas, a famous cutter in stone, and his fine workmanship. 570.l
Myrmecion what manner of spider. 360.k
Myrmecites, a pretious stone. 630.i
Myro, an excellent Imageur. 481.i. be used altogether. *Eginetick* brasse. ib. his pieces of work, wherein he excelled. 498.b. i. he wrought also in marble. 569.a. his work. ib.
Myrrha or *Myrrhu*, an herbe. 202.g. the sundry names: its bath and the description. ib. the medicinable vertues. ib.
Myrrhines, a pretious stone. 628.k
Myrsineum a kind of Fennell. 77.c
Myrsinites, a pretious stone. 628.l
Myrrh, how it may be procured. 108.b. 180.l. 223.d. 259.e. 297.d.
Myrtidannum, the medicinable vertues it hath. 175.a
Myrtle berries and their properties in Physicke. 174.k
Myrtle oile, and what medicinable vertues it hath. 161.c. 174.k.
Myrtle wine, with the vertues medicinable. ibid.
Myrtopetalon, what herbe. 287.b
Mys, a passing fine graner. 483.e. his workmanship. ibid.
Myxon, a fish. 439.d. the same that *Banchus*. ibid

N A

Nails growing crooked, young, and ragged, how to be rectified or removed with ease. 56.k. 71.e. 73.c. 76.k. 158.g. 177.f. 178.i. 183.d. 266.b. 320.i. 334.m. 393.a. 422.g. 448.b. 559.b.
Nails troubled with the excrescence, turning up, & loosenesse of the flesh about the roots, how to be cured. 101.d. 120.b. 147.c. 165.a. 167.e. 174.l. 177.f. 194.m. 329.a. 393.m. 418.m. 516.b. 521.b. 559.b.
Nails loose how to be fastened. 148.l
Nails bruisd how to be healed. 328.m
 griened with whitelawes about their roots, how eased. 266.b. 301.a. 350.b. troubled with fissures or chaps about the roots, how to be remedied. 120.b
Names fortinuat and significant, available in presenting a sacrifice. 297.a
Napi Persicum, what herbe. 291.b
Narcissinum, what oyle, and the vertues thereof. 103.d
Narcissites, a pretious stone. 630.k
Narcissus, the *Daffodill*, why so called. 103.c
 a *Narcoticke* medicine. 573.c
Nard

of Plinies Naturall History.

Nard Celticke described. 88.g. the vertues thereof in Physicke. 104.k
Nard rusticke is not *Bacca*, but rather *Asara-Bacca*. 85.f
Nassurtium, why *Cresset* be so called. 29.a
Ad-Nationes, what place it is at Rome. 570.g
Natrix, an hearbe. 286.b. the vertues thereof. ibid.
Naturall heat how increased. 290.k
Naturall parts of women. See *Primitives*.
Nauall chaplets. 115.e
Naucernus, an Imageur, and his workmanship. 502.k
Nauces of fine sundrie kinds. 16.b. their degrees in goodness. ibid.i
 of *Nauces* two kinds serve in Physicke. 38.m
Nauem bastard described. 200.g
 the medicinable vertues thereof. 202.g
 against *Navigation* an inuettine of *Pliny*. 1.f
Nauils in children bearing out how to be cured. 69.f
Nausicaa, the name of a ship, called likewise *Hemionis*. 542.b
Naxian stones what they are. 572.m
 N E
Neales, a famous painter, how he painted the froth falling from an horse mouth. 542.l. wittie he was and full of invention. 550.g. his deuise in expressing the river *Nilus*. ibid.
Nebrates, a pretious stone, why so called. 628.l
Necromantie of Homer painted by *Nicias*. 548.g
 he would not sell to *K. Attalus* for sixtie talents. ibid.
Nectabius, a sumptuous King of *Egypt*. 575.c. the *Obelisk* which he caused to be hewed. ibid.
Necke swelled in the nape or pole, how to be eased. 158.i. 245.e.
Necke sinewes so pulled that the head is plucked backward, how to be helped. 378.l. 392.m. 422.m. 431.a. 442.g.
 crickets in the nape of the *Necke* how to be eased. 300.i. 305.b. 328.l. 352.k. 378.l. 442.g.
Necke impostumes how to be cured. 397.c
Necke sinewes cut in twaine, how to be healed. 557.e
Neefe-wort. See *Ellibore*.
Nemesis, a Greekeish goddesse, inuocated for diuerting of witchcraft. 297.b. she hath no name in Latine. ibid. her statue in Rome. ibid.
Nenuphar the hearbe. 222.b. why called in Greeke *Nymphæa*. ibid. Named also *Heraclion* by what occasion. 222.i. why it is called *Rhopalos*. ibid. the description. 222.i.
 two kinds of *Nenuphar*. ibid.
Nip, an hearbe, the vertues thereof. 61.b
Nipenthes given to *ladie Helena* by *Polydamna* the Kings wife of *Egypt*. 210.l
Nipenthes, a noble drink. 108.i. the vertue thereof. 210.l.m
Nerion what hearbe. 191.f
Nero, a monster, and poison to the world. 132.g. he studied Magicke. 374.i. he could not attaine vnto it. ibid.l
 his deuise to banne exceeding cold water. 407.e
 his *Colosse* or Image 110 foot high. 496.b
 why he wore a plate of lead to his breast. 518.m
 his golden pallace. 583.b
 his wastfull superstitie. 603.b. his wastfullnesse in *Cassidione* vessel. 603.e.f

upon will tidings he broke two *Crystall cups*. 605.e. he made a sonnet in praise of *Peppas* his wines hair. 609.i
 he was wont to behold the sword-platers and fencers fight in a faire *Emeraud*. 611.d
Nernes in ash and paine how to be eased. 105.c. 135.d. 149.e. 141.d. 146.l. 179.a. 183.f. 258.k. 262.l. 303.a. 313.b. 337.d. 349.e. 392.f. 419.e. 422.k. 624.k.
Nernes wounded and cut in twaine, how to be healed. 45.b. 103.b. 216.k. 262.m. 279.e. 288.k. 337.d. 394.g. 446.m.
Nernes shrunk, plucked, and drawne together, how to be helped. 52.b. 126.i. 146.l. 262.l. 337.d. 392.f. See more in *Crampe*.
Nernes sprained how to be cured. 337.d
Nernes enflamed, what remedie. 138.k
 for *Nernes* and nervous parts, comfortable medicines. 66.i. 72.l. 73.a. 108.k. 109.b. 128.g. 134.g. 154.g. 157.a. 162.b. 187.a. 189.c.d. 226.l. 238.l. 262.l. 282.g. 412.g. 431.a.
 Net worke exceeding fine. 3.e
Nettle, 95.e.f. their stinging how to be cured. ibid.
Nettles and the seed wholesome and medicinable. 97.f. 121.c
 oyle of *Nettles*. 121.c
 dead *Nettle*. 78.g
Nettle Fulviana, whereupon itooke that name. 255.d
sea-Nettle, 255.d. medicinable. 444.g
Neurada. See *Poterion*.
Neuras, what hearbe. 231.a
Nenris, what hearbe. 112.k
 New yeares salutations with good words. 297.a
 N I
Nicaarchus, a painter famous for his workes. 556.g
Nicander, a writer of hearbes and simples. 78.b
Niceus his opinion of *Amber*. 606.k
Nicerates a cunning Imageur, and his workes. 502.l
Niceratus, a writer. 443.f
Nicias a painter commended by *Praxiteles*. 548.g
 the table that he made, and the inscription to it. 527.e
 he painted women to the life excellently. 547.e.f
Nicias his workes. 548.g. he passed for making dogs effectually. ibid.
Nicomachus, a famous painter. 543.d. his peeces of worke. ib. d.e.f. a readie workman, and quick of hand. 543.e
 in how small a time he painted the tombe of *Telestes* the Poet. or performe his bargain to *Aristides* the tyrant. ib.
Nicomachus, a gay *Minsirell*, with his varietie of pretious stones. 601.c
Nicophanes, a painter. 544.g. his manner was to renew *Old pictures*. ibid. he affected grauitie in his workmanship. ibid.
Nigella, an hearbe, how employed. 30.l. it is called *Gith*.
Melanthium, and *Melasperiu*. 65.b. the vertues of it. ib.
 iuice of *Nigella* how it is drawne. 65.c. the danger thereof. ibid. the seed how it is used. 65.d
Night-mare, a disease, how it is driven away. 283.a
Night spirits and *Goblins* how to be scared away. 315.d. 357.a. See *Illusions*.
Night-shade an hearbe. 286.b. the description. ibid.
Nigina, an hearbe. 286.b. *Nigidius*, a writer. 357.d
Nil. See *Spodos*.
Nilius, a pretious stone. 619.d. the description and

N u u 2

The Table to the Second Tome

and place where it is found, 619. e. why so called. *ibid.*
Nilus the river, how it was represented by Neales the painter in a picture, 550. g
*Nilus the river pourtrayed in Barseteo marble, with six-
 scene children playing about it,* 573. d
Nits breeding in the head how to be avoided, 365. b. 413. b
 422. g. 559. b. in the eye-lids, 557. a
Nitre, a discourse thereof, 420. b
Nitre artificial made of Oke wood burnt, *ibid.*
Nitre water and fountains, *ibid.*
*a lake of Nitre naturall, with a spring of fresh water in the
 midst,* *ibid.*
what Nitre is best, 420. m
Nitre pits and boiling houses, 421. a
stones-Nitre, and the use thereof, *ibid.*
some of Nitre, when, and how to be made, 421. b
how the best Nitre is chosen, *ibid.* c. how sophisticated, and
 by what means detected, 421. d
where sal-Nitre is, nothing else will grow, *ibid.*
in sal-Nitre more acrimonie than in salt, *ibid.*
Nitre preserveth from blindness, 421. e
the vertues medicinable of salt-Nitre, and the pits 421. f
how to be prepared and ordered for Physicke, 421. f
sal-Nitre how it may be made stone hard, 422. m

N O
Nodia, what hearbe, 206. g. called also *Mularis,* *ibid.*
Nodosities in nerves how to be dissolved, 392. k
Nodosities of scar what doth dissolve, 559. b
Nodosities in joints how to be mollified, 303. a. b
Nodosities in generall how to be resolved, 166. l. 180. g. m
Nome, what ulcers, 50. m. 393. f
Nomi, the divisions and severall jurisdictions in Egypt,
 579. a.
Nonacris, a fontaine, faire to see to, and yet hurtfull,
 405. b.
Nongentiat Rome, what they were, 460. g
*Nonius a Senator suffered proscription, rather than hee
 would part with an Opall,* 614. b
Nose bleeding how to be stanchd, 42. l. 52. b. 57. d. 61. c. e
 64. l. 121. d. e. 122. b. 207. b. 224. g. 263. a. d. 287. a
 305. c. 330. g. 393. b. c. 447. b. d. 511. b.
Nose what will set a bleeding, 207. b. 279. c
Nose bleeding diminisheth the swelled spleene, *ibid.*
*Nose bleeding and excrecence of flesh within the Nostrils
 how to be taken away,* 507. f. 521. b
*Nose ulcers called Noli me Tangere, what medicines doe
 cure,* 50. k. 59. e. 66. g. 189. e. 195. c. 200. m. 238. g
 240. g. 251. b.
*stinking sores and vermine within the Nostrils, how to be
 remedied,* 189. e
all accidents in generall of the Nostrils how to be healed,
 164. m. 165. a.
*callosities and werts growing in the Nostrils, what doth
 take away,* 197. d
pimples about the Nose and lips, what doth repress, 327. f
 328. g.
Nofegaies, who were moont for to make most of all other.
 80. i.
Notia, a pretious stone. See Ombrina.

N V
Nucleus Ferri, what it is, 514. i. k. of diverse sorts. *ibid.*

See Steele.
the greatest number in oldtime a hundre d thousand, 470. c
Number odde, more effectfull than the even, 297. a
*criticall daies observed by Physicians, are of an odde Num-
 ber,* *ibid.* b
Numbers ceremoniously observed by Pythagoras, 299. d
Numidian red marble or Porphyrie, 522. i
Nummedace open cold, how to be healed, 101. b. 105. c
 108. l.
Nummed members or astoned, how to be recovered, 300. l
Nus, a river, so called of the effect, 403. e
Nutritives, 136. l. 139. c. 151. c. 162. l. 167. c. 172. l. 236. l
 445. c.

N Y
Nyctalopes, who they be, 325. b. how such are to be cured
 of their dim sight, 325. b. 368. g. 438. l
Nyctigretum, what hearbe, and the properties thereof, 91. e. f
why it is called Chenamychos, 91. f. and why Nycti-
 lops, 92. g
the Nymphes poole, 405. a
Nymphas, an hearbe. See Nenuphar.
Nympharena, a pretious stone, why so called, 628. l
Nymphodorus, a Physician, 506. l

O B

O
Barasi, who they be, 486. k
*Obelisks in Egypt, what they were, and why conse-
 crated to the Sunne,* 574. k
who first erected Obelisks, *ibid.*
*Obelisks of K. Ramises, spared by K. Cambises, when hee
 burnt all besides,* 575. b
an Obeliske eightie cubits high, 575. c. how it was remoned
 and conveyed from the quarry, *ibid.* c. d
*Obelisks how they were transported from Egypt to
 Rome,* 575. e
Obeliske in the grand cirque at Rome, how high, 576. d
Obeliske in Mars field, *ibid.*
by what Kings of Egypt those two Obelisks were shewed,
 576. d.
Obelisk in Mars field serveth for a Gnomon in a diall, *ib.* b
*Obeliske erected by Nancoreu in Egypt, a hundred cu-
 bits high,* 576. k
Obeliske at Rome in the Vaticans, *ibid.*
Obelisks of Emerands, 613. a
Obelisk caused by some water, 403. c
Obolus, what weight, 113. e
Obryzum, what gold, 465. d
Obsidiana, what kinde of glasses, 598. b
Obsidiana lapis, a stone, 598. b. why so called. *ibid.*
Obsidian stone, how employed, 598. i. where it is found, *ib.* k
Obsidianus, a pretious stone, 629. a. where to be found, *ibid.*
 116. b
Obsidional coronet what it was, 116. b
Obstructions in generall what doth open, 143. c. 443. e

O C

O
Ochre, 485. b. the vertues medicinable, *ibid.* See more in
 Ochre.
Ochus, a river yielding salt, 414. m
Ocnospainted by Socrates, what it importeth, 549. a
C. Octavius being embassadour, killed by K. Antiochus,
ibid.
 492. g. honoured with a statue at Rome, *Odi-*

of Plinies Naturall History

O D
Odionylon, why the fish Echeneis is so called, 426. l
Odious how an enemy may be made to all the world, 314. g
 316. g.
Odontitis, an hearbe, 286. i. the description, *ibid.*

O E
Oenanthe, what floure, 146. g. why so called, 92. i. 110. g
 the medicinable vertues, 147. a. where the best is, *ibid.*
Oenias, a painter, famous for his picture Syngentia, 550. b
*Oenophorus, an image of Praxiteles his making, and why so
 called,* 500. l
Oenothera, what hearbe, 259. e
Oenotheria, a magicall hearbe of strange effects, 204. k
Oesppum, what it is, 308. g
Oesppum medicinable, 350. l. which is best, *ibid.* l. m. how
 to be ordered, *ibid.*

O I
Oile grasse greene, called Herbaceum, 162. k. the vertues
 thereof, *ibid.*
Oile of Henbane, 162. i. the effects good and bad that it
 hath, *ibid.*
Oile of Lupines and the vertues thereof, *ibid.* i
Oile of Daifodils, what vertue it hath, *ib.* k
Oile of radish, what operation, it hath, *ib.*
Oile of Sesama, what are the effects thereof, *ibid.*
*Oile of Lillies, what other names and medicinable proper-
 ties that it hath,* *ibid.*
Oile Selticicum, the vertues of it, *ibid.*
Oile called Eleomeli, the medicinable effects thereof, 162. l
Oile willingly doth incorporat with lime, 176. i. See
 more in Oyle.
Onions of sundry sorts, 20. g
Onions differ in colour, 20. i. in tast, *ibid.* how to be kept,
 20. l.
Onion plots how to be ordered, *ib.* l. m
Onions their properties, 41. f
 the different opinions of Physicians as touching the na-
 ture and vertues of Onions, 42. i
*Onions highly commended by Asclepiades, and condemned
 by moderne writers,* *ib.*
dogs Onion Ornithogale described, 99. c
sea-Onion. See Squilla.
 Egyptians sweare by Onions, 20. g
Oister Willow, the operation thereof, 187. a
Oister Siler, the vertues in Physicke, 189. b
Oisters and their commendations, 437. c. d. their vertues
 medicinable, *ibid.*
Oisters a foot square, 437. b
Oisters Tridacna, why so called, *ibid.* b
Oisters medicinable, 436. i. a daintie meat, *ib.*
Oisters lone fresh waters, and therefore the coasts, *ib.*
 few Oisters found in the deepe sea, 436. k
a deuise to coole Oisters, 437. c
Oisters which be best, *ib.*
why the best Oisters be named Calliblephara, 436. m
Oisters desire to change their water, *ibid.*
thereby they feed fat, 437. n
coasts renowned for their Oisters, 437. a
the best Oisters of Cizycum, and their description, *ib.* a. b

O K
Oke and Oline at war one with another, 176. g
Oke Apples their vertues in Physicke, 168. i

O L
Oke of Ierusalem an hearbe. See Borrys.
Olach, is a river detecting periurie, 404. k
Oleander what names it is knowne by, 191. f. the strange
 nature that it hath, 192. g. death to cattell counterpoys-
 on to man, *ib.*
Oleastreffe, what it is, 518. b
Olenus Calenus, a great Wisard of Tuscane, 295. e. his pra-
 ctise with the Romane Embassadors to diuert the strati-
 nies and fortune from Rome, *ibid.*
Oline tree gum, 159. a
Oline leaves medicinable, 158. k
Olines white, their commendable vertues in Physicke
 159. a.
Olines blacke their properties, 159. b
Olines in pickle, their good and harme, *ibid.*
Olympias a woman paintresse, 551. b
*Olympias of Thebes, an expert and sage midwife, partly also
 a Physician,* 72. b. 339. b. shee forbiddeth women with
 child to vse Mallowes, 72. b
Olympius the surname of Pericles, and why, 501. c
Olyra, the vertues medicinable thereof, 138. i

O M
Ombrina, a pretious stone, 628. m. called likewise Notia, *ib.*
 how it commeth, *ib.* the vertues, *ibid.*
Omphacium. See Wine Perinnice.
Omphitocarpus, what hearbe, 274. d

O N
*Onces, of all foure-footed beasts, haue the quickest eye-
 sight,* 316. l. their body yieldeth medicines for mans
 body, *ib.* l. m. they hide their owne urine upon ennie to
 mankind, 317. a
Onobrychis the hearbe described, 202. b
Onochelis, or Onochyles, 125. b
Ononis, or Anonis, the herbe Rest-harrow, 98. l. the descrip-
 tion, *ib.* 273. e. the vertues medicinable, *ib.*
Onopordon, an hearbe, 286. k. why so called, *ibid.*
Onosma, an hearbe, 286. k. the description, *ibid.*
Onuris, an hearbe, 259. e. the description, *ib.* the vertues, *ib.*
 See Oenothera.
Onyches female shell-fishes, 444. b
Onychites or Onyx, what stone, and where found, 573. e
 how it was employed, *ibid.*
Onyx a pretious stone, 615. e. the description and the sundry
 kindes, *ibid.*
Onyx of India and Arabia, 615. e. f
 the true Onyx, 616. g

O P
Opall a pretious stone, 614. g. naturally it is bred in India,
ib. how it doth participat with other gems, 614. b
sundry kindes of the Opall, *ibid.*
Nonius proscribed for an Opall, 614. b
the imperfections in the Opall, *ibid.* k. how falsified, *ib.*
 the triall thereof, *ib.* why it is called Paderos, 614. l
 which Opall is best, *ib.* l. m
Ophicardelos, a pretious stone, 629. a
Ophidion, a fish like a Conger, medicinable, 445. a
Ophilius a writer in Physicke, 300. k
Ophiogenes, a race of people, aduerse in nature to serpents,
 298. m.
Ophion, a beast, 399. d
Ophion, a wild beast found onely in Sardinia, 322. g
 N n n 3
 Ophio

The Table to the second Tome

Ophiostaphillon, what plant, 149.c
 Ophites, what Marble, 573.b
 Ophiusa, a Magickall hearbe, and the vertues thereof, 203.c
 it worketh illusions to as many as eat it, ibid.
 the remedie to prevent such effects, ibid.
 Opion, a writer in Physicke, 41.a. 130.g
 Ophiotonus, what disease, 328.m. the cure, ib. See Cramp.
 Opium, what it is, and how to be drawne, 67.c. 68.g
 Opium, if it be taken inwardly, how the mallice may be corrected, and the danger prevented, 64.h. 150.m
 153.b. 157.b. 160.k. 232.g. 419.f.
 the operations of Opium, 68.g
 Opium was the death of Licinius Cecinaes father, ibid.
 whether Opium may be used or no, a question argued among Physicians, ibid.
 Opium, in what cases not to be used, ibid.
 Opium, by what markes it is tried, whether it bee good or no, 68.i. k. how it is kept, 68.l
 Opocarpion, a nice venomous, 443.b. the remedie, ibid.
 Opopanax, Bucolicum why so called, 274.k
 Oporine, a medicine why so called, 197.f
 the vertues that it hath, ibid.
 Opuntia, an hearbe, and the properties thereof, 99.d
 O R
 Orach the herbe condemned by Pythagoras, Dionysius, and Diocles, 71.a. it breedeth many diseases, ib.
 Orbus, the Lomp-fish, 428.i. his description and nature, ib.
 Orca, a pretious stone of a pleasant colour, 628.l
 Orobanche, an herbe, described, 98.m. the use of the root, ib.
 124.k. the description and vertues that the root hath, ib.
 Orobis, an hearbe, 256.m. two kindes thereof, ibid. the description, ibid.
 Oron, an hearbe, 287.c. the description, ibid.
 Oroselinum, what Parsly, and the effects thereof, ibid.
 Origanum, an hearbe, 64.b. many kindes thereof, ibid.
 Origanum Heracleoticum, 63.c. of three sorts, 64.i. 214.l
 Origanum Prasium, 64.i
 Origanum employed in Guirlands, 90.i
 Orobanche, what weed, and why so called, 145.a. the description and use thereof, ibid.
 Orobanthion, what hearbe, 249.c
 Orobitis, a kinde of Borax artificiall, 471.b
 Oromenus, a mountaine of salt, 415.a. yeelding great reuenues, ibid.
 Orpheus, a writer in Physicke, 40.l. he wrote exactly of hearbes.
 Orpiment, a minerall, whereout gold was extracted, 469.d
 the description and use thereof, ibid.
 Orpine, an hearbe, 290.l. the description, ibid.
 Orpin, a painters colour, 518.k
 Orisopnoiche, how they be diseases, and what remedies for them, 59.b. 66.m. 105.d. 106.l. 107.c. 108.i. k. 121.c
 131.c. 156.b. 173.b. 181.a. 192.m. 199.a. 200.l. 247.b
 263.d. 278.b. 283.f. 288.b. 289.d. 290.i. 318.i. 370.l.m
 331.b. 432.i. 471.c.
 Orithagoriscum, or Porus, a fish, grunting like an Hog, 429.b.
 O S
 Ossis. See Words.
 Ossifragum, a kinde of Geir or Vulture, 383.b
 the gut of this bird medicinable, ibid.
 Osibanes first wrote of Magicks, 373.a. be set it first abroad

in the world, ibid.
 Ostracias, a pretious stone, 628.m. the kindes, 629.a. how it differeth from an Agath, ibid.
 Ostracites, a pretious stone, 629.a. how it took the name, ibid.
 Ostracite, what stones, 589.a. why so called, ib. the vertues that they haue in Physicke and otherwise, ibid.
 Ostratium, a shell-fish, thought to be the same that Onyx the fish, 449.b. the vertues, ibid.
 Ostrich greace sold deare, 362.k. the use thereof, ibid.
 Ostris, an hearbe, 286.l. the description, ibid.
 Ostrites, or Cynocephalia, a magicall herb in Egypt, 375.b
 the wonderfull power thereof by the saying of Apion, ib.c
 O T
 Otemeale, the use and vertue thereof in Physicke, 140.m
 Otbonne, an hearbe, 286.s. the description, ib. called by some Anemone, 413.m
 Othus, a river yeelding salt, 451.b
 Otter, a kinde of Bieuer, 451.b
 O W
 scritch Owle, what lies the Magicians haue deliuered of it, 359.c.
 O X
 Oxalis a kinde of Docke, 73.a
 Oxalme, what it is, and the use thereof, 157.b
 Oxus, a river yeelding salt, 414.m
 Oxycraton, what it is, 155.e. the medicinable vertues that it hath, ibid.
 Oxysgala, what it is, 319.b. how made, ibid.
 Oxylapachum, an hearbe, 73.b. the description and vertues, ibid.
 Oxymell how it was made in old time, 157.a. the effects thereof, ib.b
 Oxymyr sine or Chamamyr sine, an hearbe described, 175.b
 named also Ruscus by castor, ibid.
 Oxys, a kinde of rish, 100.k
 Oxys, an hearbe, 286.m
 Oxyschanois, a kinde of rish, 100.k
 O Y
 Oyle of Olines, or mother of oyle, what medicinable vertues it hath, 159.c. how to be used in diuerse cases, 159.c.d.
 Oyle Oline of sundry kindes, which be medicinable, 160.b. i
 Oyle Oline Omphacium, for what it serued, ibid.
 Oyle Oenanthinum, the operations thereof good and bad, ib.
 Oyle of Tick-seed, called Cicinum, the vertues thereof, 160.m
 Oyle of Baies the vertues that it hath, 161.c
 Oyle of Chamamyr sine or Oxymyr sine, of what operation it is, ibid.
 Oyle of Cypresse, what vertues it hath, ibid.
 Oyle of Citron, and the vertues, ibid.
 Oyle Carynum, or of Walnut kernels, & the operations, ib.
 Oyle of Thymelae seed, 161.c
 Oyle of Lentisk or Mastick, what be the vertues thereof, ib.
 Oyle of Cyprois, to what uses it serueth, 161.f. See Oile.

P A

Pacuvius, a poet and painter both, 526.g
 Paanides, pretious stones, why they be also called Gemonides, 629.c. their vertue, Pa-

of Plinies Natrall History:

Paderos, what signifieth, 622.b. a pretious stone, ibid. the description, ibid. the praise of it, 622.i. the best is the Argenon, the next the Indian Senites, ib. their defects, ibid.
 See Opal and Amethyst.
 Paderos, an hearbe, 129.c
 Padius borne dumbe, learned painters craft, 526.i
 Pagasei, hot springs breeding salt, 414.m
 Pagrus, a river-fish, medicinable, 445.e
 Pains in horses how to be cured, 144.m. 150.k
 Paine of the stomacke how cured, 57.c. 60.g. 61.d
 Paine occasioned by the stone, how eased, 332.k
 Pains generally of the bodie, how to be eased, 74.i. 387.c
 128.b. 136.k. 144.l. 182.l. 233.d. 236.i. 313.b
 350.i.
 Pains ensuing upon sprains and dislocations, how to be eased, 129.a
 Paine proceeding from some secret and hidden cause, how to be assuaged, 423.f. 351.b. 354.d
 old Pains and griefes, how to be mitigated, 313.d
 Palace stately of Paulus Aemilius, 581.e
 Palacra, or Palacrena, what they are, 469.b
 Palimpissa, what it is, 183.c
 Palurus, what thorne, 195.d. the seed medicinable, ibid.
 Pallacana, what Onion, 20.k
 Pallas, a rich stone enfranchised, 479.c
 Palonis, shell-fishes, and their medicinable vertues, 443.c
 Palfie the disease, by what medecins presented and cured, 49.d. 52.k. 62.l. 139.c. 155.d. 161.c. 183.f. 283.f. 318.g
 333.d. 388.g. 412.g. 422.k. 431.a. 432.l.
 Pamphilus, a notable painter, learned with all and grounded in Arithmetick and Geometrie, 537.b. a deare teacher, ibid.
 Panaces, an hearbe, why so called, 214.i. a common name to many hearbes, ib. ascribed all to the gods, ib.
 Panaces Aesclepien, why so called, ibid.
 Panaces Heracleum what it is, and why so named, 214.l
 it is cleped also Origanum Heracleoticum, and why, ib.
 Panaces Chironium, why so called, 214.l. the description, ib.
 the flower medicinable, ibid.
 Panaces Centaureum or Pharmaceum, why so named, ibid.
 the description, 214.m. the uses whereto it serueth, ibid.
 Panchrestia, what medecine, 590.b
 Pancrat, a pretious stone, 629.a. the reason of the name, ib.
 Pancration, an herbe, 287.e. the description and vertues, ib.
 Pancrat, a pretious stone, 629.b. commended much by queene Timaris, ibid.
 Pananus a painter, when he flourished, 532.m. he painted the battaile at Marathon, with the full proportion of the captaines, 533.c. challenged by Timagoras and overcome, 523.d
 Pangonius, a pretious stone, 629.b. the description and reason of that name, ibid.
 Pani, biles in the share and other emunctories, how to be drinen backe in the beginning, 444.k. 560.b
 how to be ripened and broken, 385.d. 560.b. 444.l
 a singular ointment for that purpose, ib. how to be resolved and disjuncted, 385.c. 433.b. 437.d. 444.k
 Panicke, the medicinable vertues thereof, 139.f
 by whom called Mel-frugum, ibid.
 Panniscus, a picture of Tauriscus his making, why so called, 550.i
 Panjabastor, a pretious stone: the same that Panegor, 629.b

Pantheon, a temple at Rome, wherein the chapters of the pillars were all of brass, 589.b. built by Agrippa to the honour of Iupiter Reuenger, 581.f
 Panthers, whom they will not assault, 359.b
 Paps of women and maids overbig, how to be taken downe, 413.c. how they shall not ouergrow vndecently, 448.i
 Paps impostumal how to be cured, 128.g
 Pappos. See Groundswell.
 Papyr reed in Egypt, the medicinable vertues, 191.d.e
 Papyr made thereof, what operation it is of, 191.e
 Papyrus Fabianus, a great Naturalist, 586.i
 Paralius, a kinde of Poppie, why so called, 69.a
 Paralus the name of a famous ship painted by Protegenes, 542.b.
 Parafius an excellent painter who chalenged Zeuxis, 535.a
 their peeces of workmanship, ibid. b. what Parafius mented and added to the Art, 535.c. his excellencie in pouring, 535.e. his defect in painting, ib. his desire to paint the people of Athens, ibid. e. f. his pride, arrogance, and vaine glorie, 536.b. i. he was put downe by Timanthes in the picture of Ajax, 536.i. his speech therupon, ib.
 Paratonium, a painters white colour, 528.k. why so called, 529.c. how sophisticated, ibid. the price and use, 529.c.d
 Paraphoron, what kinde of Alum, 558.i
 Pardalos, a pretious stone, 630.l
 Pargia, what they be in painters worke, 542.b
 Pargit for walls, of Panetus his making, 595.a
 Parietarie of the wall, an hearbe, 273.a. why it was called Perdicium, 99.c. why it was not named Parthenium, 123.e. See Helixine.
 Paring of nails superstitiously obserued, 298.b. for what it is good, 310.b. i
 in Paros a vein of marble representing within it the image of Silenus naturally, 565.e
 Parsnep wild, or Madnep, 173.f
 Parsnep white. See Skirwort.
 Parsnep wandring called Staphylinus, the medicinable properties thereof, 40.i
 Parthenis, an hearbe. See Artemisia.
 Parthenium, an hearbe, 111.e. 123.b
 Passe-floure Anemone, 92.b. when it flourereth, ibid.
 Pastiles, an excellent catter in marble and yuorie, 570.b
 his worke, ibid. he wrote fine bookes of all workes of fine workmanship, ib. how hardly he escaped a Panther, ib.
 Passerines, a kinde of whetstones, 193.b
 Past to glew withall, what it is good for in Physicke, 139.c
 Pasture making horses enrag'd, 226.g
 Pasture druing asses into madnesse, 19.d
 Patience hearbe described, 73.b. the root thereof, 596.g
 Patemens whose intention, 596.g
 the manner of Pasing an open floure vpon a terrace, 596.k
 Pawings called Lutostrata, 596.m. Pawing Greecian, ibid.
 Pavonacea, what workes in tiling, 592.b
 Pausias, a cunning painter, 80.k. 546.k. his delight was to draw small pictures and prettie boies, ib. his celeritie in worke, 546.l
 Peaches, a harmelesse fruit, and medicinable, 169.d
 Peacocks dung medicinable, 367.d. they eat their dung againe so soone as they haue mewed, for ennie to mankinde, ibid.
 Pears what kinde of meat, 166.k. the medicinable use of Pears, and the albes of Pearre-tree, 166.k
 Peaten

The Table to the second Tome

Pecten Veneris, what hearbe, and why so called, 206.g. the
vertues that it hath, *ibid.*
Pecunia, why many in coine it so called, 462.l
Pedes Gallinacei, what hearbe, 236.l
Pedigres and *decentis* observed among the Romans, 523.d
Pedunculis, creepers in the sea good for the infirmities of the
eares, 439.c
Pedunculis terra, what they be, 379.c
Painting in ancient time reputed a noble art, 522.g
Painting of stones when denised, 522.b
Tarpilius left handed, an excellent Painter, 526.b
Q. Pedius borne dambe, learned to be a Painter, 562.i
Painted clothes deceive birds, 526.l
when the first Painted tables of a forreiners worke was
brought to Rome, 527.a
Painting with fire of two kindes, 551.b.c
Painting of ships, 531.e
a Painted table cast the weight in gold, 533.a
prizes proposed for Painters miming the best game, 533.d
art of Peimng reduced into three kindes by Eupompus to
wit, Ionicke, Sicyonian, and Atticke, 537.a
Peimng schoole frequented by gentlemen sonnes, 533.b
Painting with wax, 546.b
Peimng or pourfiling with a coale, who first denised, 525.b
who first Painted with colours, 525.c
Painting Art, raunged in the first degree of Libera!l Sci-
ences, 537.b. it might not be taught unto slaves, *ibid.*
Painting, whose invention, 525.a
Pelagia, what oysters, and why so called, 436.k
Pelamis, the Tunicke fish, when he is so called, 451.d
Pelamis is medicinable, 444.l
Pelocinum, an hearbe, 288.i. the description, *ibid.*
Pelops, a writer in Physicke, 433.d
Pelops his rib of Iuorie, 299.f
Penelope a singular picture of Zenxis making, 534.k
Penicilli the softest and finest sponges, 423.d. where and
how they grow, 424.l
Peniro all an herbe, the vertues thereof, 60.b. male and fe-
male, 60.i
Peniro all, why it is called in Greeke, *αἰνόν*, 61.a
Pentadactylon, what hearbe, and why so called, 207.b
Pentadactylon, what bricke, 555.e
Pentapetes, what hearbe, 228.l
Pentaphyllon, what hearbe, 228.l
Peplum, what hearbe it is, 69.d. the vertues thereof, *ibid.*
hurtfull to the eyesight, 70.k
Peplos an hearbe, 287.f. the description, *ibid.*
Pepones what fruit, 14.b
Peppertwort. See *Dittander*.
Percher, the ashes of their heads medicinable, 444.m
Perdicium, what hearbe, 111.e
Perfumes by sweet hearbs commended by Orpheus and He-
siodus, 211.a
Peribustus, an Image of Praxiteles his making, why so cal-
led, 500.k
Pericarpum, an hearbe, 232.g. the kindes and description,
ibid. the operation, *ibid.*
Periclimenos, an hearbe, 288.g
Perileucus, a pretious stone, why so called, 629.c
Perillus, a cunning brasse founde, famous for the brasse
bull to torment folke, 504.b
punished worthily for his owne handy worke, 504.i

Peripneumonie or inflammation of the lungs, how to be cu-
red, 167.d. 180.k. 200.l. 287.f
Perisson, what hearbe, 112.k
Peristereon, what hearbe, 228.g. why so called, 231.c
See *Veruaine*.
Perna, a kinde of fish, and the strange nature thereof, 452.l
Perpensa, what hearbe, 104.g
Perpressu, what hearbe, 255.c
C. Perreius Attinas, honoured with a grasse chapter, 117.b
Perseus a painter, the uses of painting, 544.b
Persey of diuers kindes, 24.g. how to be sowne and ordered,
29.c.d. it serueth in coronets, 29.d
hon cooks and vintners use Parsley, 34.b
Persey much practised, 53.c. the vertues thereof, *ibid.* male
and female, 53.f. their description, *ibid.*
Persey not admitted to the table, and why, 54.g
the discommodities of persey, *ibid.*
stone *Persey*, commonly called *Petroselinum*, the vertues
that it hath, 54.l
Perfolata, what hearbe, 229.c. the description, *ibid.*
Perfolata, an hearbe used in guirlands, 113.d
Personages. See *Images* compleat.
Personata, an hearbe See *Arion*, or *Clot-burr*.
Perwinkle, an herbe described, 92.m. named *Chamadaph-
ne*, 110.m
Perwinkles fishes, medicinable, 442.i
Pessilent infection, by what preseruatiues to be prevented,
173.e. 201.b. 202.b.
Pessilent aire, how to be corrected, 599.b
Petefuccu, a king of Egypt, built the first Labyrinth, 578.i
Petulum, what flower, 89.c. the qualities thereof, *ibid.*
Petraea, a kinde of Colewort, 50.l. the description, *ibid.*
the medicines that it yeeldeth, *ibid.*
e Petra Colewort, the greatest enemy to wine, 50.l. it killeth
dogs, 51.a
Petradius, an Herbarist and writer, 78.g
Petroleum, or *Petrelon*, a kinde of Bitumen, 415.e
Petronius Diodorus, an Herbarist and writer in Physicke,
48.b. 228.m.
T. Petronius upon his death-bed brake a rich *Cassidione*
cup, 603.e
Peucedanum, what hearbe, 229.f. See *Harstrang*.
Peumene, what kinde of Litharge, 474.k
Peziza or *Pezici*, what *Mushromes* they be, 8.g
P H
Phacos, what it is, 142.b
Phagedana, eating fores, 447.f. how cured, *ibid.* See *Vlcers*.
Phagedana, what it signifyeth otherwise, 259.d
Phalangion, or *Phalangites*, an hearbe, described, 288.l
the blew spider *Phalangium* described, and the sting there-
of, 360.k
Phalangium, a venomous spider, the remedies against the
pricke, 45.e. 52.l. 54.k. 101.e. 105.c. 106.k. 108.d
110.k. 126.k. 127.b. 133.b. 157.d. 170.g. 173.d
174.i. 179.b. 187.d. 188.m. 190.b. 202.b. 230.i
237.f. 274.g. i. 288.l. 290.i. 360.g. b. l. 413.b
433.e.
Phalangium unknowne to them in Italie, 360.g. the sundry
kindes, *ib.* the description, manner of sting, and cure, *ibid.*
Phalaris, an hearbe, 289.a
Phalaris a tyrant, who caused *Perillus* to be tormented by
his owne engine and torture, 504.b
Phalerum

of Plinies Natural History.

Phalerum Demetrius honoured with 360 statues at A-
thens, 492.k. the same were all ouerthrowne within one
yeere, *ibid.*
Phalereon, a painter, and his workmanship, 550.b
Phanias a Physician, made a treatise in the praise of Net-
tles, 122.g
Phaon of Lesbos, why so beloued by Sappho, 119.c
Pharos the tower in Egypt, what is cost in building, 478.g
Sofratus the Gnidian was the architect of this watch-
tower, *ibid.* the uses of this tower, 578.b
Pharicum, a poison, what is the remedie,
Phasganion, an hearbe. See *Xiphion*.
Phastotum. See *Isopteron*.
Phassachates, a pretious stone, 623.e
Philandron, an hearbe, 289.a. the description and vertue,
ibid.
Pheneus, a river in Arcadie, 411.a
Phengites a shining stone, 592.l
Phenion, what hearbe, 109.c
Phidias, the most excellent imagour in stone that euer was.
495.f. he wrought the noble image of Iupiter Olympi-
us, 497.a. he deused chasing and embossing in met-
tall, 497.c. his workes, 497.d. 566.g
Phidias was also a painter, 532.l. when he flourished, *ibid.*
he painted the shield of Minerva in Athens, *ibid.*
Philanthropos, an hearbe, See *Aparine*, *Cliters*, and *Erib.*
Philemon, a writer of Naturall Philosophie, 606.g
Philearia, an hearbe. See *Polemonia*.
Philippus, the resemblance of a boy in brasse, why so cal-
led, 503.a
Philiscus, a famous painter, 550.b
Philistio, a writer in Physicke, 40.k
Philocares, an hearbe, 74.m
Philocares a painter, famous for the picture of Glancion
and his sonne Arisippus, 527.e
Philopes, an hearbe, 74.m
Philosophers and learned men, what imagours delighted to
represent in brasse, 503.f. 504.g.k
Philoxenus, a painter, 543.f. his workes and readie hand,
544.g.
Phnithia, a fontaine wherein nothing will sinke, 404.i
Phlegmaticke humors, what doth purge, 432.l. 442.l
443.a. See *Flame*.
Phlegonitis, a pretious stone, 630.l
Phleon, what hearbe, 120.l
Phloginos, a pretious stone, called also *Chrysses*, 629.b
Phlonides, what hearbes, 230.k
Phlomos, an hearbe. See *Lungwort*.
Phlox, a flower used in guirlands, 91.b
Phoenicea, what hearbe, and the medicines that it affour-
deth, 140.k
Phaniceris, a pretious stone, why so called, 629.c
a Physicall receipt made of the ashes of the bird *Phenix*, a
mere imposture and fabulous deceit, 349.d
Phenix, a famous imagour in brasse, and his workman-
ship, 502.l
Phenix, a great architect and engineer, 575.c
Phonos, an hearbe, why so called, 98.b
Phormion, what kinde of Alume, 558.i
Phragmitis, a reed medicinable, 450.i
Phrense cured best by sleepe, 260.k
for the *Phrenic*, appropriat remedies, 37.b. 44.g. 49.f. 57.e

64.i. 66.k. 75.e. 181.d. 187.f. 219.d. 350.g. 389.i
430.m. 573.c.
Phryganium, 391.e
Phrygian stone, why so called, 589.d. how calcined, and
for what it is good, 589.e
Phrynon, what hearbe, 231.a. 288.i
the effects that it hath, the names and description, 231.a
Phthisicke or consumption, what remedies be respectiue to
it, 43.a. 44.b. 76.i. 127.e. 129.c. 173.c. 181.d. 183.d
199.f. 200.l. 202.b. 224.k. 247.d. 259.c. d. 303.d. 317.e
318.b. k. 319.d.e. 320.g. 336.i. k. 388.g. 412.k. 446.k
588.g.
Phn, or *Setwall*, the vertues that it hath, 104.l
Phycites, a pretious stone, why so called, 629.c
Phycos *Thalassion*. See *Reike* and *Sea-weed*.
Phyllon, what hearbe, 123.a. 288.m
Physer, a tearme of Lipidaries, what it signifyeth, 631.e
Physicke flourished about the Peloponnesiacke warre, and
was professed by Hippocrates, 373.d
Physicke nature is simple, 176.k. that is the best, *ibid.*
Physicians well rewarded in old time for their cures, 344.b
Physicke drugs far set and compounded, *Plinie* inuenereth
against, 137.d.e. 176.l
Physicke in old time consisted of simples, 211.d. 242.b
Physicke most properly handled in the Greeke tongue, 346.l
against the abuse in *Physicke* and of *Physicians*, an inue-
ctiue, 347.a.c. 348.b. i. 349.a
Physicke noted for much incertitude and no soliditie, 343.d
against all art, *ibid.*
many times changed, 345.d
Physicke fathered upon canonized gods, 343.d
Physicke, when it was regarded at Rome, 346.k.l
Physicke and *Physicians*, the occasion of many enormities
and misdemeanors, 347.e
Physicians in Rome of great name, and reuenues by yeerely
fee, 344.k
Physicians are not chosen and called as *Iudges*. *Minima-
sters* and others, 347.b.c
Physicians arguing about their patients, hinder the cure,
345.c.
many nations linc without *Physicians*, but not without
Physicke, 345.d
Physicke long ere it was entertained at Rome, 345.e
stone rectified, *ibid.* 349.b
M. Cato an enemy to the Greeke *Physicians*, 346.g.b
he condemned not *Physicke*, 346.i
he lined according to *Physicke* of Simples, and so main-
tained himselfe and familie in good health, 346.i.k
Physiognomists, who they were, 539.d. See *Metoposcopi*.
Phytisma, an hearbe, 288.l
P I
Pibble stones not good for building unless they be bound
with strong morter, 593.c
Piconia, a spring, 408.g
Picris, a kinde of Lettuce or Cichorie, 241.i. why so called
99.d. 127.e.
Pictores, a surname to the house of the Fabij, wherefore
525.f.
the answer of a Dutch Embassador as touching a Picture,
527.b.
Pictures liuely for the memoriall of men, 522.k. much este-
med in old time, 524.g
Picture,

The Table to the second Tome

Pictures inserted within books by M. Varro,	524.g
Atticus wrote a treatise of Pictures,	ibid.
M. Agrippa his oration as touching removing of Pictures out of priuie houses and setting them up in publicke places,	527.c
Picture of Nero, Colosse-like in cloth, 120 foot high,	531.b
burnt with lightning,	ibid.
Pictures of sword fences, and their fight, who devised,	532.i
Pictures unfinished, more admired than the perfect,	550.k
Proud pictures, when they were first entertained at Rome,	482.l
Pignitis, a kind of earth, 559.f. the operation,	560.g
the sea-Pike Lepus, how wittie he is to auoid nets,	427.c
how he and the booke part after he is caught therewith,	428.g
Pillars in building, of foure sorts, 594.a. Dorick what they be, ib. Ionick, ib. Tuscanke, ibid. Corinthian, ibid. Atticke,	595.b
proportion of Pillers, of their length to the building, of height to their thickesse,	595.b
Piles and painefull swelling bigs in the fundament, how to be cured,	105.c. 106.l. 120.i. 134.g. 139.c. 158.l
160.b. 161.c. d. f. 194.g. 169.e. 172.g. 174.l. 193.b	196.b. 255.f. 256.g. 272.i. 278.b. 393.a. 306.i. 333.d
351.a. e. 352.k. See more in fundament.	
Pilewort. See Celendine.	
Pills purgative,	252.b
Pills of goats dung oodg for the eye-sight,	325.a
Pimper nell the herbe, 334.i. the diuerse kinds and their description,	ibid.
Pimples rising upon sweat how to be repressed,	161.e
Pimples red in the face or skin, by what remedies cured,	37.a. 44.i. 47.c. 52.i. 55.e. 65.e. 70.k. 76.g. 173.c
184.k. 187.c. 320.b. 327.d. 338.b. 377.d. 421.e. 443.c	516.b
Pin and web, what medicines do take away,	100.l. 119.d
144.i. See more in Eies.	
Pine-nuts or apples their vertues in Physicke,	171.c
Pionie or Paeonie the herbe most ancient,	214. why so called, ib. the description, ib. 282.k. two kinds, the male and female, 282.l. the vertues in Physicke,
214.i	danger in digging up the roots,
282.l. m	Pip in pullaine how to be helped,
44.m. 189.c. 193.d	Pipes for water conduits of clay baked,
411.d	Pipes of Lead,
411.e	Pipes of sundry sizes,
ibid.	Pipes Denarie, Quinarie,
ibid.	Piperitis the herbe, why so called,
34.g. it is named Siliquastrum, 64.g. the description, ib. the vertues,	ibid.
Pismires in a garden how to be killed, 32.k. they are medicinal, and their eggs likewise used in medicins for the eares,	369.b
Pismires cure beaues when they be sicke,	ibid.
Pissafisthali, what it is, 183.f. 557.b. Naturall and Artificiall,	183.f
Pisselcon, what kind of pitch,	179.e
Pissing blond, how to be cured,	111.a. 180.k. 195.c. 199.b
205.a. 254.m.	Pissing with difficultie how helped,
124.g. 171.e	See Priue.
Pistana, what herbe,	100.b

Pit-waters, when coldest, 410.g. when they decrease and rise,	410.b
Pitch of diuers kinds, 183.b. what Pitch is best,	183.b
the severall uses of all the kinds of Pitch,	ibid.
Pitch agreeeth well with oile,	176.i
stone Pitch,	183.b
Pitch tree, what vertues it yeeldeth medicinal,	181.c
Pituitaria, what herbe,	149.a
Pityocampa, what worms, 362.b. the remedies against it,	157.c. 160.k. 318.b. where it breedeth, 362.b. how to be prepared for use in Physicke,
362.i	Pityusa, what herbe, 182.g. the description and medicinal vertues thereof,
ibid.	

P L

for the Plague, a remedie,	155.d
Plaies, and Comedians, what imageurs delighted to pourtray in brasse,	503.f
Plane tree, the medicinal vertues that it hath,	184.k
Plantaine the herbe, 223.b. two kinds of it, ib. the description,	223.c
Plaster both Naturall and Artificiall, 595.d.e. how to be made and wrought, 595.e. the use thereof in building,	395.e. f.
C. Proculcius in a fit of the stomacke-paine, dranke Plastre and willingly killed himselfe,	595.f
Plaster taken inwardly, how the danger may be auoided,	160.k. 318.b.
Plaste, who they be,	552.b
Plastice, what Art, 494.b. 552.b. See Potterie.	
Plate of diuers fashions,	480.k
inconstancie of men in the varieties thereof,	ibid.
Plate vessell of silver and gold, and the abuse thereof in Rome,	463.f
a capitaine displaced for hauing fine pound weights in silver Plate,	481.b
Pompeius Paulinus banished for hauing 12 pound weights of silver plate in the camp,	481.e
superfluitie in Plate, brought upon Rome the plague of civile warre betwene Sylla and Marius,	481.d.e
Plate costly for workmanship,	482.b
C. Gracchus his costly silver Plate, in regard of the curious engraving,	482.b
excesse in Plate, when it came generally into Rome,	482.i
a merrie speech of Carthaginian Embassadors as touching the Plate of the old Romans,	481.c
Platters called Patinarum Paludes,	554.b
Platyophthalmion, why Stimmi or Anisomie is so called,	473.c.
Platys, a broad Tendon,	255.e
a Plerhoricall bodie, or ranknesse of blond, how to be taken downe,	443.a
12.m	Pliniana, what cherries,
35.c	Plistonius, a Greeke writer in Physicke,
169.e	Plumtree, and the medicinal vertues thereof,
361.k. 359.a	Plumbago, an herb,
612.k	Plumbago, a fault or blemish in the Emerald,
236.k	Plumbum, a disease in the eies, how to be cured,
40.k	Pluresie or Pluresie, with what medicines it is cured, 40.k
57.a. 63.c. 65.a. 67.d. 75.a. 104.b. l. 105.a. 107.e. 128.i	129.f. 134.l. 135.d. 144.i. 150.g. 167.d. 173.c. 180.g. k
184.l. 186.i. 193.a. 196.m. 198.i. 200.l. 248.b. 255.b	271.d. 287.f.

small

of Plinies Naturall Historie.

P O

small Pocks and such like eruptions, how to be cured,	418.m
421.e. 422.b. 437.d. 443.b	
ale-Pocke about the nose how to be healed,	128.b
Paele, the gallerie, at Athens, why so called,	523.f
Paeonites at Rome leued at the first, of bruses and mutations, and not of coine,	455.a
Panicum, what stone,	592.g
Pots ignorant in Cosmographie,	606.g
Polea, what it is,	230.i
Polemonia, an herb, thought to be Sauge de Bois,	230.i
Polemonia an herb, how itooke that name, 220.k. why it is named Chiliodyna, ibid. the description,	ibid.
Polema, what it is, 139.a. the medicinal vertues thereof,	ibid.
630.m	Polia, a pretious stone,
Polion an herb, highly commended by Musaeus and Hesiodus,	211.a
Polium, an herb, 88.i. two kinds thereof, and the vertues, ibid. commended much by some, and condemned againe by others,	106.g. b
Pollio Asinius erected a Bibliothecae or Librarie at Rome	523.f.
he furnished it with statues and images of rare workmanship,	569.a
Pollio Romulus his Apothegme as touching bonied wine and oile,	136.m
Pollution or shedding of seed in sleepe upon weaknesse, by what remedies it is cured,	46.l. 48.g. b. 58.k. 59.c. 70.i
256.l. 451.l.	
Polyanthemon, an herb, 286.m. called Batrachion,	ibid.
Polybius, a Greeke writer,	424.l
Polyer, an imageur, and his works,	502.l
Polyeretus, a famous imageur in brasse,	488.i
he used Dilucke mustall,	ibid.
his exquisite works,	497.e
he brought the Art of foundrie into a method,	497.f
diuers pieces of his making,	ibid.
Polyclitus a writer,	403.f
Polyenemon an herb, described, 265.f. the vertues,	266.g
Polyerates the tyrant his ring, and stone in it, 449.b. it was a Sardonax, 601.a. he wilfully threw into the deepe sea,	601.a
600.l. he found it againe in a fishes belly,	288.i
Polygala, an herb, why so called,	ibid.
Polygnonius, a famous painter, 484.k. his denises and imentions, 533.e. his rare workmanship, ibid. his liberal mind, ibid. f. how he was honoured by the states of Greece,	534.g
Polygnonius, what herbe,	123.a. 287.a
ibid.	Polygonum, an herb, 287.a. why so called,
548.b	Polygonum, what picture, of Atheman his drawing,
Polypus, an ulcer in the nose, 251.b. See Nose vlcers.	
Polypodium, what herb, 251.a. the description, ibid. why called also Filicula, ib. the vertues, ib. the offences that it worketh,	251.b
Polyrrhizon, what herb,	216.c. 289.a
Polyrrhizon, what herb, 226.i. the vertues,	ibid.
Polyrrhiza and Callirrhiza, two capillare herbs, their description and how they differ,	232.i
Polytrix, a pretious stone,	630.l
Polytrix, a pretious stone,	ibid.
a Pomado for chaps in lips or face,	327.f
Pomades of other sorts,	320.k. l

Pomegranats, their properties in Physicke, 164.k. whether to be eaten in a feuer or no,	ibid.
Pomegranate rind, what it serueth for, 164.j. why called Malicorium,	ibid.
Pomona compared with Ceres, Flora, and Tellus, by the way of Propopoea,	145.c. f
Pompeius Lenaxus, a Grammarian and Linguist,	209.f
he translated into Latine the medicinal receits found in K. Mithridates his closter,	209.f
Pompeius Magnus his glorious third triumph,	602.k
what gold, silver, iewels, & pretious stones, he then shewed,	602.k. l
ed,	602.k. l
Plinie enueigeth bitterly against Pompey for this triumph,	602.m
his bounteous liberalitie in the said triumph,	603.a
his triumph set the Romans a longing after pearles and pretious stones,	602.b
he brought Cassiodore cups first into Rome,	603.c
Pompholix, what it is, and how it differeth from Spodos,	511.d. e.
the vertue thereof,	511.e
Pompions. See Melons.	
Pond-weed. See Water Specke.	
Pontica, the pretious stones of Pontius, 629.b. the sundry sorts,	ibid.
Pontife or high Priest letting fall a morsell of meat at the board was ominous,	298.b
Poplar white, a tree, what vertues it hath in Physicke,	183.a
Poppae the Emperesse bathed ordinarily in asses milke, for to make her skin faire, soft, and smooth,	527.c
Poppae shod her horses with gold,	480.m
See kept fine hundred asses for to bath with their milke,	327.d
Poppies of three kinds,	30.l
the seed of the white Poppie conselled,	ib.
It seasoned bread,	30.m
white Poppie heads medicinal,	67.e
blacke Poppie, 31.a. wandring Poppie,	ibid.
the description of wandring Poppies,	68.l
Poppies wild, their severall kinds and vertues,	67.e. f. 68.g
K. Tarquinus the Proud ropt off Poppie heads,	31.a
what he meant thereby,	31.b
Poreblind or short-sighted, how to be helped,	367.e
the Porcellane shellfish, staid Perianther his ship at sea, 426.i	426.i
consecrated at Gnida,	426.i
Porcius Cato a great student, and looking pale therewith,	61.d.
his scholars affected to looke pale like him by eating Cumins,	ibid.
Powrcuttle fish Polypus, how he auoideth the booke like to catch him,	427.f
Powrcuttles not to be sodden with salt, and why,	447.a
Porphyrite marble,	573.c
Porpus fish described, 436.g. his finnes venomous,	ibid.
The remedy, ibid. his fat medicinal,	440.l
Forret a kitchen herb, how to be sowne and ordered, 21.a. b	
the medicinal vertues thereof, 42.l. See more in Leeks,	587.b
Porus, what stone,	ibid.
Powrfiling, what it is, 535.d. the hardest point in painting,	ibid.
Pose, or a cold, what medicines do break and resolute,	65.b
289.e. 304.k. 377.f. See Rheume.	
Pofidianus, a fontaine, why so called, and the nature of it,	401.e.
Pofidanus	

The Table to the second Tome

Pofidonius, a renowned grauer, 483.e
Potamogeton, what herb, 250.g. the description according to Cusior, and how he used it, ib. the aduersative nature of it to Crocodils, 250.b
Potehon, what bearb, 231.a. 288.i. the description, ib.k
Pothos, what flower, 92.k
Potterie or working in clay more antient than founderie of brasse and other imagerie, 494.b. 552.1
places ennobled for Potters worke, 553.d.e
Potterie or workmanship in cley, how it began, 551.e
Potterie ware, of great use and estimation, 553.d.e
Potterie, mother of founderie or casting mettall, 552.l
much practised in Tuscan, 552.m
a confraternitie of Potters instituted at Rome by K. Numa 553.c.
manifold uses of Potterie and works in cley, ibid.
Posit, a famous Potter, and his fine works, 552.k
excellent workmen in Potterie as well for cley as playster and alabaſtre, 551.e. f. 552.g. h. i. &c. See Plastica and Plasta.
Poyſons septick or corrosiue, their remedies, 323.c. See Corrosiue and Cansticke.
preseruatiues against poyſoned drinckes giuen by witches and sorcerers, 67.d. 231.d. e. f. & deinceps.
Poyſon cold, how to be corrected, 159.b. 187.c
Poyſon worne in the collets of rings, 456.k. 458.l
Poyſons, whether they may be put downe in writing or no, 212.c.d.
Poyſons may be made counterpoyſons, 215.d
for Poyſons in generall, remedies, 38.k. 75.c. See Counterpoyſons.

P R

Precordiall parts, what is meant by them, 380.g
pain and gripes about those parts, how to be eased, 153.e
163.c. 380.g. 413.c. bruised or hurt how to be cured, 274.g. See Midriff.
Prenestina, the best goldfoile, why so called, 465.e
the Praferuatiue confection of K. Mithridates, how it is made, 172.k
a Praferuatiue against all misfortunes, 193.e
Praſon, i. Horeboud, an herbe, 74.m. See Horeboud.
Praſins, a kind of pretious stone of a greene colour, 619.d
the severall kinds and their description, ibid.
Praxagoras, a Physitian and writer, 44.g. be used beards onely in all his cures, 242.k
Praxiteles, a most excellent imaginer, and grauer, 483.e
he practised as well to cut in marble as to cast mettall, 500.i.
his worke, 500.k. 566.h. i. l. m. 567-2.b
his good nature and beniginitie, 500.m
Preſſior, what kind of Sinopre, 528.l. the price and use, ib.
Preſſer, a venomous ſlie or worme, what remedies against it, 62.c. 153.b. 196.g. 431.b. 434.b
Pretious stones, 454.i
Pretious stones taking name from the parts of mans body, 630.b. from beaſts, 630.i. from plants, beards, seeds, and diuers things, 630.k
Pretious stones engendred new daily, 631.b
all pretious stones fairer for being boiled in hony, 631.c
rules how to know and distinguish Pretious stones, 631.e
how Pretious stones may be artificially falsified, 631.f
how such falsified stones may be found out, 632.g

when Pretious stones are to be tried, 632.b
stones that will not be engraven, 632.i
all Pretious stones may be cut with a Diamond, 632.i
riuers yielding pretious stones, ibid.
lands wherein be best Pretious stones, ibid.
Pretious stones haue been of men diuersly esteemed, 615.a
Prick of urchin, hedgehog, or such like how to be cured, 306.i
Prickly beards, 97.d. they are medicinable, 118.k
why nature hath armed them with Pricks, 118.k
Prick-madam, what bearb, 237.c. why it is called Tri-thales, ibid.
Prunes or Primprint, a small tree or shrub, what uses it affourdeth in Physicke, 189.c
Prinities or members of generation, sore and grieved, by what medicins to be cured, 385.a. 509.e
Itching and fretting, how to be eased, 183.a. 385.a
exulcerat, how to be healed, 306.i. 385.b. 445.a
carbuncle, how to be remedied, 318.m. 392.b
impofummat or vexed with botches, how to be helped, 444.l.m.
werts arising there how to be taken away, 385.a
Prinie diseased in generall, what medicins do helpe and comfort, 42.g. 50.b. 63.c. 70.l. 75.b. 77.f. 101.d
111.b. 120.i. 138.k. 165.a. b. e. 195.a. c. 196.g. 197.a. d. 208.g. 254.i. 255.d. 257.b. 273.a. 320.i. 333.a. 351.a. b. 353.a. 558.l.
Prinities of men diseased, how cured, 510.k
Prinities or naturall parts of women, by what medicins comforted and preserued from maladies, 136.k. 141.f
181.k. 301.b. 509.e.
hauing a schirre, how to be mollified, 207.c
if the necke be overſtreight, how to be enlarged, ibid.
excoriat how to be healed, 397.b
Prodicus, the author of the Physicke Iatrapetice, 344.g
Prodigies, whether they may be auerted and altered by words or no, 295.d
K. Prætus his daughter cured of her melancholie, by what means, 217.b
Promethæus portrayed with a ring of yron, and wherefore, 455.a. thought to be the first deuiler of wearing a stone in a ring, 600.k
Propolis, what it is, 135.c. the vertues medicinable that it hath, ib. from whence Bees gather it, 185.b
Profedammum, what infirmities in horses, 257.c
Proferpinaca, an bearb, 289.b
Proteus, a great sorcerer, and his transformations, 372.k
Protopages, a famous Imegeur in brasse, and a cunning painter withall, 504.k. 537.e. 543.c
he had this fault, that he knew not how to make an end, 537.e. his kindnesse to Apelles his conuerent and challenger, 538.i. not regarded by the Rhodians his owne countrymen, 539.e. poore at the beginning, 542.g
ouer curious in his workmanship, ibid.
his famous Inſyſus with his dog, pictured, 542.b
why he liued of Lupins onely, when he painted this table, 542.i. he was helped by fortune in the finishing thereof, 542.l. he followed his worke when Rhodes his native citie was beleaguered, 543.a. his answer to K. Demetrius for so doing, ib. diuers pictures of his making, 543.a. b. c. he gaue himselfe to curious worke, 543.c
Protya, what they are, and who deuised them, 532.g
Prytanæum, the towne hall of Cizicum, 581.b

of Plinies Natrall Historie

Pſaronium, what kind of marble,	591.f	Purgatiues in curing maladies, condemned by Aſclepiades and moſt Phyſicians in old time,	243.f	
Pſegma, what it is,	512.k	Purgatiues, how they may loſe their operation,	298.b.	
Pſudanchuſa, what bearb it is,	124.m	Purgation how to be ſtayed,	432.m	
Pſudodomon, what kind of building in maſonrie,	593.f	Purſenſe, how to be helped,	154.g	
Pſendodilamon, what bearb,	225.d	Purple fiſhes medicinable, 437.d. their ſhells medicinable,	438.b. how to colour a purple die,	421.a
Pſendodilamon, what bearb,	225.d	Purple embroidered coats, by whom worne in Rome,	459.d	
Pſoricum, what medicine,	509.f	Puſhes or piles called Pani, ariſing commonly in the emunctories, how to be diſſolved or brought to maturitie,	336.b	
Pſicrotrophon, an hearb. See Betonie.	95.b	70.l. 72.m. 158.l. 178.g. b. 180.k. 138.a. 183.d. 192.m. 206.l. 208.g. 279.e. 282.b. 303.b. 307.c. 309.d. 316.k. 320.g. 370.f.	320.g. 370.f.	
Pſylli, people withſtanding poiſon.	231.a	other Puſhes, or angry bilei, how to be reſpreſſed or reſolved without ſuppuratiue and breaking,	72.g. 140.l. 142.g	
by touching or ſucking onely, they cure the ſting of ſerpents,	298.m	144.k. 166.l. 167.d. 180.g. 560.b.	144.k. 166.l. 167.d. 180.g. 560.b.	
Pſyllion, an hearb. See Fleawoort.	579.b	Puteolana, a kind of Lead liuarge,	474.k	
		Putrefaction of fleſh, how to be cured,	208.g	
			P Y	
		Pycnocomon, what herbe, 251.a, the deſcription,	ib.	
		Pythia, a Phyſician,	370.k	
		a Pyramis erected upon Maſoleum by the hand of Pythis a famous workman and architect,	568.l	
		Pyramides in Egypt beuoy the vainglory of thoſe princes, 576.l. why they made ſuch monuments,	576.m	
		where they were ſituated,	577.a. b.	
		Pyramides of Egypt teſtified by many writers, yet knowne it is not what prince built which Pyramis,	577.c	
		in building of one Pyramis, the number of workemen, and how many yeares were employed,	577.d	
		how many talents of ſilver expended in radiſh, garlick, and onions, for the workemen about one Pyramis,	577.f	
		the deſcription and meſure of the largeſt Pyramis, ibid.	577.f	
		the height of theſe Pyramides how it ſhould be taken, Thales Mileſius taught,	577.f	
		Pyreicus, a famous painter, 544.b. he practiſed to paint ſimple and baſe trifles, 544.i. ſurnamed therupon Rhy-paregraphos,	ibid.	
		Pyren a pretious ſtone,	630.k	
		Pyrgoteles, a famous Lapidarie and cutter in pretious ſtone 601.d. he onely was allowed to engrane the image of K. Alexander the Great in a ſtone,	ibid.	
		Pyrites, the Marcasine ſtone, why ſo called,	588.l	
		where it is found, ibid. how calcined,	ibid.	
		for what uses in Physicke it ſeruent,	588.m	
		uncalcined how it is medicinable,	ibid.	
		Pyrites, a pretious ſtone,	630.l	
		Pyromachus, a cunning imageur, 402.i. his works,	ibid.	
		Pyrrhus an imageur, and his works,	502.f	
		Pyrrhopexilas, a kind of marble. See marble Syenites,	ibid.	
		Pythagoras, a Phyſician,	661	
		Pythagoras ſuperſtitious in obſerving numbers and letters,	299.d.	
		Pythagoras the Philoſopher honoured with a ſtatue at Rome, for being the wiſeſt man,	492.i	
		Pythagoras of Rhegium a famous Imageur, & his works,	498.k.	
		Pythagoras of Samos an Imageur, and his works,	498.l.m	
		he reſembled the other Pythagoras ſo nere, that hardly he could be knowne from him,	ib.	
		Pytheas a writer,	428.f	
			Pythia	

The Table to the second Tome

Pythens an admirable grauer, 483.f. *his workmanship*
 exceeding colly, *ib.* his works, 483.f. 484.g
Pythens the eighth Bithynian, 480.g
Pythia, Priestesses and Prophetesses, 469.d
Pythios, a kinde of bulbe, 19.b
Pythis, an excellent mason and architect, 568.l
Pyxianthus, a bush, the berries whereof are medicinable,
 195.d.

Q V

Q Vadrans, a small piece of brasse coine at Rome, 463.^b
stamped with punts or small boats, *ibid.*
Quadrigati, silver pieces of coine at Rome, why so called,
463.^c
Quaestoria, what goldsoile, 465.^c
Quaking chilling for cold, how to be helped, 136.^g
Quarrels and debate, what causeth, 342.ⁱ
Querne-stones ready framed, found naturally in the
ground, 588.^g, turning about of the owne accord, *ibid.*
Quartane agues untoward to be cured in old time by any
good course of Physicke, 390.^b
against the **Quartan ague**, appropriat remedies, 444.^l, 67.^a,
109.^e, 120.ⁱ, 122.^k, 126.^k, 151.^d, 219.^e, 223.^d,
260.ⁱ, 298.^c, 301.^b, 302.^b, 309.^e, 310.ⁱ, 311.^b,
312.ⁱ, 315.^a, 335.^f, 336.^g, 356.ⁱ, 390.ⁱ, 434.^m,
391.^a, ^b, ^c, 413.^a, 432.^m, 435.^a, 445.^f, 446.^g, 451.ⁱ
557.^e.
Quartidianague, how cured, 310.ⁱ, 311.^b, 335.^f
Quicke brimstone. See **Brimstone** and **Sulphur-vif**.
Quicke-silver, a poyson, the remedies thereof, 121.^c, 153.^b
318.^b, 323.^a, 364.^b.
Quick-silver Natrall where it is found, 473.^a
the power thereof, it it loveth gold, 473.^b
it purifieth it, *ib.* the great affinitye betwene gold and
it, 473.^c, it is rare,
Quid pro Quo in Physicke, dangerous and condemned,
348.^f.
Quicke-fire stones, what they be, 589.^a
good for spalls in a campe, *ibid.*
they mill/strike fire, *ibid.*
Quinarius, a piece of silver coine at Rome, of what value,
463.^a, ^b.
Quinces, for what good, 163.^d
oyle of **Quinces**, called **Melinum**, what vertues it hath, 64.^g
Quindecimvirs at Rome, and their colledge, 295.^b
Quinquefolium. See **Cinquefoile**.
Quinqueviris, 347.^c, delegats chosen with good circumspen-
sion, *ibid.*
Quich-grasse described, 206.ⁱ, why called **Gramen Per-
nassii**, 206.^k, the vertues that it hath, *ibid.*

R A

R *Abirum*, a writer in Physicke, 308, g
Radicula, what beare it is, 9, c. where it groweth, ib.
 what use there is of it, ib. what names it hath, 192, f
 the medicinable vertues that it hath, ib. why it is called
Aureum Poculum, ib.
Radishes described, with their properties, 163, k

Radishes of excessive bignesse, 17. *a*
Radishes of three forts, 16. k. the Radish Agrion, Armon,
or Armoracia, which some call Leuce, 16. *m*
Radish seed, where to be sowne, 17. *a*
Radish roots how to be ordered as the grow, 17. *a, b*
best Radishes in Egypt, and why, 17. *c*
Radish medicinable, *ibid.*
Radish highly esteemed among the Greeke, *ibid.*
Radishes cure the phthisicke, 17. *d*
Radish presented in gold to Apollo, *ibid.*
in the praise of Radish a booke compiled, 17. *e*
Radishes mayre teeth, and polish yvoire, *ib.*
Radishes their medicinable vertues, 39. *b*
Radishes wild, and their vertues, 39. *a*
Radishes corrected by Hyssope, 40. *a*
Ragwort an hearb. See Orchis and Saigrion.
Rai-fish or Skate, medicinable, 439. *d*
Raine water kept in cisterns, whether it be wholesome or no
400. g. it altereth the nature of some riuier waters for
the time, 410. k. it foonest doth corrupt, 406. *k*
Raisins, of what operation they are in Physicke, 148. *k*
especially, cleansed from their stoncs, *ibid.*
Rams how they shall get none but ram-lambs, 400. *g*
Ramifies a king of Egypt erected an obeliske of one entire
stone, abounded four high wanting one, 574. *a*
his deuiſe to fasten his owne sonne to the top end of it as
at the wearing, 573. *a, b*
Ranunculus, an hearb. See Crowfoot.
Rapes of two kinds, 16. *g*
a Rape of lead offered to Apollo, 17. *d*
a Rape rosted by Maritus Curius for his refectiſon at the
table, 38. *k*
Rapes medicinable, *ibid.*
Rasoir a sife, and the nature thereof, 428. *a*
Raspis, why called in Latine Rubus Idam, 197. *a*
the medicinable vertues that is baib, 197. *a*
Rats and mice how to be killed, 124. *b, 128. f, 195. f*
Rat of Indie. See Ichneumon.
Rauens thought to be ill at ease all Summer long, 355. *a*
Raw places how to be skinned, 565. f. See Gallie.

RE

Rease waters medicinal, 403.^o
Red gum in children, how to be cured, 127.^c 306.^c 307.^b
Reeds and canes serving in Physicke, 450.^a
Refrigerative or cooling medicins, 46.g. 47.^c 67.^c 103.^e
 120.^k 131.^e 135.^e 142.^b 147.^a 153.^d 167.^b
 189.^d 192.^b 306.^a 221.^e 223.^d 236.^e 237.^e
 250.^e 259.^e 287.^b 290.^e 473.^d 474.^b 475.^a 511.^f
 529.^f 560.ⁱ 591.^e
the Regard of the eie in some cafes of men held to the veno-
mous, 240.^k
Reins in the backe pained how to be eased, 37.^a 48.^l
 42.^b 53.^b 67.^b 175.^e 283.^a 304.^l 305.^e 329.^e
Reins, with what medicins they be purged, 77.^e 104.^f
 126.^f 144.³ 3.^a
for the infirmities of the Reins, comfortable medicins, 148.^k
 171.^c 181.^f 182.^e 206.ⁱ 248.^k 275.^e 290.^a 252.^b
Reits or Sea-weeds medicinal, 276.^e 437.^e as good as
treacle, ib. sundry kinds going under the name of Alga,
ib. they serve the dyer for a fure colour, 391.^d
Relapfe in agues how to be prevented, 357.^a
a Remedy for all diseases, 357.^a
Remitt;

of Plinies Naturall Historie.

Remens, a writer, 462.l
Remora, a fish. See Echeneis.
Rennet of Fawne or Hind-calfs, is most aduerse to ser- 321.f
pents,
Repercuſſine medicines, 139.a.158.g.174.l.278.c
284.b.290.g.424.g.
Reſeda, what herbe, 289.e. the vertues thereof, ibid.
Reſolutive medicines. See Diſcuſſine.
Reſtauratiues for them that be ſaine away, 41.c.127.e
130.i.134.b.136.g.139.d.155.d.162.m.167.c.171.c
181.d.259.b.318.g.413.c.446.i.
Reſtharow an herbe, 98.l. of the deſcription, ibid.

R H

Rhacoma, 289. *b.* what root, *b.* the description, *ibid.*
Rhagion, a kind of spider, 360. *a.* the description, *ibid.* the
 manner of pricke or sting, *ib.*
Rham, what kind of bramble, 197. *b.* their severall kinds,
 and the description, *b.* the medicinable vertues, *ib.*
Rhapeion, an herbe. See *Leontopetalon*.
Rhaphanos Agria, what herbe, 253 *b.*
 the clarified juice thereof is medicinable, 253. *c.*
 the dose, *ibid.*
Rhaponticke. See *Centaurie* the great.
Rhetoricke, a gainfull profession in old time, 470. *b.*
Rheumatifms, what they be, and how cured, 124. *b.* 133. *c.*
 223. *c.* 310. *i.*
Rheums or distillations how to be dried and staid, 43. *a. c.*
 44. *b.* 53. *c.* 55. *b. d.* 66. *g.* 70. *k.* 72. *b.* 141. *a. b.* 149. *a.*
 153. *f.* 159. *f.* 161. *f.* 172. *k.* 177. *d.* 197. *d.* 224. *f.*
 226. *f.* 249. *f.* 281. *e.* 287. *b.* 303. *e.* 309. *d.* 330. *c.*
 380. *m.* 412. *k.* 414. *b.* 437. *c.* 443. *a.* 519. *c.* 571. *m.*
 360. *b.*
Rheumes shin, how to be thickened, 194. *i.*
 sputting *Rheums*, how to be staid, 183. *e.* 239. *e.*
Rheume into the eyes, how to be cured. See *Eies* watering.
Rhexias, what herbe, 25. *b.* the description, *ibid.*
Rhinocifia, 278. *i.*
Rhodites, a pretious stone, 630. *m.*
Rhododaphne. See *Oleandri*.
Rhododendron. See *Oleander*.
 neither of them both hath a name in Latine, 192. *g.*
Rhadore a famous harlot, built one of the Pyramides, 578. *g.*
Rhodora, what herbe, 205. *d.*
Rhœas, what Poppy, 31. *a.* how it differeth from *Anemone*, 109. *d.*
Rholus, one of the architects that built the Labyrinth in Lemnos, 579. *c.*
Rhonalas an herbe. See *Nenusphar*.

R O

Rhus a shrub, hath no Latin name, 193.g. the description,
ib. the medicinable vertues that it hath, ibid.
why it is called the Carriers shrub, ibid.
Rhyparogarithus. See Ptericus.
R I
Ribwort. See Plantaine.
Ricinus an herbe, 161.a. the seed, berries, and oyle thereof,
what properties it hath in Physicke, and otherwise, ibid.
Ricini in Mulberry trees, what they be, 170.i
Riding on horse backe, in what cases good, 303.d
Rings of gold worme at first upon the left hand, 455.b
the reason thereof, 456.g
Rings of yron used by Romans and Lacedaemonians, 455.b
Rings upon the fingers a bad example, 455.a

the Rings of Giger, 455.*b*
Ring diversly named, 455.*d*
Rings of gold, to whom allowed first at Rome,
how used, 455.*e*
wedding Rings of yron, 455.*f*
golden Rings not knowne in Homers time, 455.*f*
a Law for wearing of Rings, 460.*b*
when Rings were worne ordinarily at Rome, 456.*m*
Rings worne at Rome by Senators onely, as a badge of
their honourable place, 457.*c*
when they were worne more ordinarily by Senators, Gen-
lemen and Commons, 457.*e*
three modys of Rings at the battaile of Canne, 457.*f*
a Ring caused the quarrell betwene Drusus and Capia,
from whence arose the Marrians warre, 457.*f*
ancient Senators wearing Rings of yron onely, 457.*f*
Rings with signets to seale, 458.*g*
Rings set with precious stones, 458.*h*
Rings masse fealing without a stone, 458.*h*
Ring first put upon the fourth finger of the left hand, 458.*i*
an order or regularitie set downe by Tiberius, as touching
the use of Rings upon the fingers, and whereupon, 458.*h*
the ceremonie of laying a Ring upon the table before sitting
downe to meat, for what purpose, 459.*d*
Ring with a signet or signe manuell, upon what finger
worne in Rome, 458.*k*
the cause and occasion of much
mischiefe, 458.*l*
used for assurance in contracts, 458.*l*
it began by occasion of vsurie, 458.*l*
Ringworms, by what remedies they be killed, 459.*e*
*124.*b*. 128.*g*. 139.*a*. 146.*k*. 158.*m*. 172.*i*. 187.*e**
*194.*b*. 252.*b*. 265.*d*. 285.*a*. 300.*c*. 307.*c*. 413.*b**
*419.*b*.*
Riparis, what Swallowes, 378.*i*
Risings in share and other emunctories, how to be repressed
or refused, 122.*g*. 126.*l*. 137.*b*. See more in Groine,
Pulster, and Pani.
Rinels or wrinkles in the skin of womens faces, how to be
laid even and smooth, 38.*l*. 103.*b*. 127.*d*. 150.*b*. 161.*b*
*171.*d*. 184.*b*. 268.*k*. 319.*e*. 327.*c*. 416.*b*. 437.*c*. 4*
*439.*a*. 441.*a*.*
Riner waters, 406.*l*
what Riners ordinarily have bad waters, 406.*l*
what Riners yeeld wholesome waters, 406.*l*
Riners at all times not of like tast, 410.*i*
the water of the same Riner not at all times alike whole-
some, 410.*i*
Riner fresh turning to be salt, 411.*b*
Rivers of salt where, 414.*l*.*m*

R O

beerb-Robart. See Geranium.
against robbing how to be secured, 315.*d*
Rocket the herbe, good in a salad with Lettuce, 29.*a*
the medicinale vertues thereof, 55.*e*
why called by the Greekes Euzomos, 55.*f*
Rocking, a good meane to procure sleepe, 303.*e*. good also
for health, 414.*l*.*m*
Romans a second Sun-shining to the world, 269.*e*
Romans in an ill name for conuocousnesse, 403.*e*
Rome admirable for stately edifices, 581.*d*.
Roofe of sores how to be taken off, 141.*d*. 448.*b*
Roots of diuers kinds, 19.*d*
Roots lying hidden all winter season, 43.*d*
Root

The Table to the second Tome

Root of an herbe broken within the ground, thirty foot long, 214.g.	Rue a counterpoison for Libard-baine,	ibid.
Roots lesse effectually, if the herbes be suffered to seed, 291.f	Rue male and female,	57.b
Ropes made of rushes and other matter,	Rue killed the infant newly conceived,	58.k.l
Rose bushes, how to be set or planted,	Rubbing of the body maketh for health,	303.d
Roses grafted,	hard and soft, worke diuers effects,	ib.
the Rose bush and the Rose described	See more in Frictions.	
use of Roses,	Rubie a pretious stone,	616.b
the medicinable vertues of Roses,	why Rubies be called Apyroty.	ibid.
Roses served up with viands,	Rubies of diuers sorts,	ibid.
the best Rose,	Rubies of India, ib. of the Garamants or Carhedonij, ibid.	616.i
Roses, their seuerall parts and names to them,	Rubies of Ethiopia and Alexandria,	ibid.
their distinct vertues,	Rubies Alabandines or Almandines, why so called, ibid.	616.i
Rose of Pranesfe, 83.c. of Capua, Miletum, Trachinie, and	Rubies male and female, with their descriptions,	616.i.k
Alabanda,	Rubies Amethysyconites, which they be,	616.i
Rose Spineola,	Rubies Syrii, what they are,	ibid.
Rose Gentilise, why so called,	Rubies of India called Lithizontes,	616.k
Rose Campion,	Rubies Orchomenian,	ibid.m
Greece Rose,	Rubies Troezenian, ib. Corinthian,	617.a
the Rose Gracula,	Rubies of Marfils and Lisbon,	617.a
Rose Moicenton,	Rubies are much sophisticated, 617.a. how the fraud is dis-	617.b
Rose Coronola,	covered,	ibid.f
where the best Roses grow,	Rubie minerall, called Anthracites,	ibid.f
Rose of Campaine,	Rubies of other sorts,	ibid.f
Rose bushes how to be ordered,	Rubrica, a red earth or ruddle in great request in Homers	476.g
Rose leaves how to be dried, 162.l.m. their vertues,	time,	528.i
hastie Roses flourishing all winter long,	Ruddle or Rubrica, a painters colour,	528.m
Rose oil odoriferous,	Rubrica of Lemnos counted the best and most medicinable,	528.m
Rose wine,	Ruddle for carpenters, which is best,	529.b
Rose oyle,	Rumax, what herbe,	73.b
Rose juice medicinable,	Running of the reins how it may be staid,	72.i.130.k
Rose of Iericho. See Amomum.	Ruptures inward, spasmes, and convulsions, how to be hel-	167.f.272.l.385.a.444.b
water Rose. See Nempnar.	ped,	167.f.272.l.385.a.444.b
Rosemary called Libanotis,	Rupture when the guts be false downe, how cured, 444.b.i	167.f.272.l.385.a.444.b
Rosemary of two kinds,	Rupture waterish called Hydrotete, how to be healed, 385.c	167.f.272.l.385.a.444.b
in Rosemarie, what Cachoys is,	Ruptures in young children bursten, what remedies,	397.c.f
Rosat, a rich painters colour,	398.b.	
how it is made of Tripoly or goldsmiths earth died, 530.l.m	against all Ruptures in generall, good medecins,	39.c.41.d
Roset of Puteoli the best, and why,	44.k.48.g.58.i.64.k.72.l.75.b.103.b.108.k.123.a.d	
the price of Roset,	128.i.m. 129.c.f. 130.l.138.b.142.b.150.g.154.g	
Rosins of sundry kinds,	162.b.178.m.179.a.f.180.g.186.k.198.i.199.c.248.b	
Rosins dry of Pine and Pitch trees,	254.g.h.i.263.d.264.g.275.e.283.e.286.m.289.c	
the medicinable vertues of all Rosins,	290.i.313.c.d.320.g.332.b.338.g.	
of what trees the Rosins be best,	Rusous an hearb, 111.a. the vertues, thereof,	ibid.
of what countries and places the Rosin is best,	how it is to be prepared for medecins,	ibid.
Rosins how to be dissolved for plaisters and outward me-	of Rusbes or Rishes diuers kinds, and their use,	100.k
dicins, 182.k. how for potions,	Rust of yron, how it is soonest scoured away,	413.c
Rostrum, the publicke place of orations at Rome, why so cal-	Rust of yron medicinable,	516.g
led,		
Rowing upon the water for what diseases good,		

S A

Rue killed with the touch of a menstruous woman,	308.m
Rue a medicinable herbe,	56.k
the juice of Rue taken in great quantitie is poison,	ib.
what is the remedy,	ibid.
Rue stolne, thriue best,	23.c
when and where to be sowne,	29.a.b
Rue given in a largeesse at Rome,	29.b
Rue and the Fig-tree, set well together,	ibid.
Rue doth propagat, and set it selfe,	29.c
the weeding of Rue is troublesome,	ib.
how that may be helped,	56.i
Sabine stone, how it will burne of a light fire,	588.l
Sacall: the same that Ambre,	606.k
Sacopenum, a physickall herbe, 30.l. called Sagapenum, 67.d	ibid.
the vertues which it hath,	ibid.
Sacrificing mans flesh, when forbidden at Rome,	373.f
Saffron a medicinable spice,	104.m
Saffron the hearb and floure,	86.b
how to be set, ib. where is the best,	ibid.
the manner of choosing Saffron,	86.b.i
how it is used,	86.k
the manner of the growing,	99.e
Sagda,	

of Plinies Natrall Historie.

Sagda, a pretious stone,	629.d
Sagitta, what herbe,	110.b
Sagmina, what they are,	115.d
Salin Crystall, what it is,	605.a
Salads of herbes commended,	12.i.k
Salamanders payson, with what medecins repressed,	56.m
121.c. 150.l. 157.c. 160.k. 318.l. 358.m. 432.b.k	
Salamander of all serpents most dangerous,	358.k.l
he destroyeth whole nations at once,	ibid.
by what means,	ibid.
his venome is Narcoticke and extreame cold,	ibid.
of Salamanders, swine feed without danger,	385.l
whether his body do extinguishe fire or no,	359.a
Salicestrum what plant, and why so called, 149.c. the ver-	
ties thereof,	ibid.
Salij the priests, what chaplets of floures they wore,	82.g
Siliunca, an herbe, described,	82.b
the use thereof, ibid.	105.f
Sat gem.	415.d
Salow. See Willow.	
Salt Theriacus, or Theriacalis, a kind of medicinable salt,	366.l.m.
Salpe, a learned and expert midwife, who wrote of Phy-	300.k
sicke,	ibid.c
Salt-petre, 421.b. how the best is knowne,	417.d
Salsugo, or Salsilago, what it is,	176.i
Salt seasoneth viands,	ibid.
Salt be it naturall or artificiall, proceedeth of two causes,	414.i.
Salt in what places made by drying in the Sun,	ibid.k
Salt an household garnell,	417.b
Salt Spanish, for what infirmities it is most medicinable,	419.a
Salt compounded for to get an appetite,	416.l
Salt mountains,	415.a
Salt minerall,	ibid.
walls and houses built of Salt,	ibid.
Salt for Physicke, which is best,	416.k
Salt growing sensibly in the night season,	415.b
Salt best for powdering or seasoning meat,	416.l
Salt Ammoniacke, 415.b. why so called,	ib.
the description, ibid. it is medicinable,	415.c
light within earth, beanie above ground, and the reason	ib.
why, ib. how it is sophisticated,	ib.
pit or poole Salt,	415.c
the manifold uses of Salt in Physicke,	418.l
Salt for the kitchen, which is best,	416.k.l
Salt artificiall how it is made, 415.d. of sea water,	ib.
out of certaine springz or wells,	ibid.e.f
Salt Spring,	416.g
Salt for the table which is best,	416.k.l
Salt made by fire,	416.g
Salt blacke,	ibid.
Salt made of ashes, ib. of fish pickle or brine,	ibid.b
Salt water for what garden seed it is good,	33.b
poole-Salt, which is best,	416.b
sea-water Salt which is best,	ibid.
the nature and temperature of Salt,	418.l
in what seasons and constitutions of weather, Salt engen-	
dreth most,	416.i
Salt not sparkling in fire, but in water,	416.i
Salt of sundry colours,	416.k
floure of Salt, 417.b.c. the properties thereof,	ibid.d
how sophisticated,	ibid.
the nature of Salt,	418.l
Sales in Latine, what they signifie,	416.m.417.a
Salaries, what they be,	417.a
Salavia Via, a street, why so called,	ibid.
Salustius Dionysius, a famous Physitian,	440.g
Salutio, a surname or addition to the family of the Sci-	
pioes,	523.d
Samian earth of two kinds,	559.d
Samian stone, 591.a. good to burnish gold, good also in	ibid.
Physicke,	ibid.
Samolus, an herbe, with what ceremonious circumstances	
to be gathered,	193.f
Samothracia, what they be,	458.f
Samothracia, a pretious stone, why so called,	629.d
Sampier, what herbe, 236.k. the description,	254.k
the manifold uses that it hath,	254.l
Sampier Sauge,	256.l
Sand of the sea shore, for what medicinable,	414.i
Sand used to slit and saw marble with,	572.b.i.k
Sand for mortar, which is good,	594.k
Sand of Puteoli, of a wonderfull nature,	554.d
Sand of Nilus, wherefore used at Rome, & elsewhere, 554.d	
Sandaracha, a painters colour artificiall,	528.k
Sandaracha artificiall, how made,	530.g
the right colour and the price,	ibid.
Sandaracha naturall, where it is found, 520.m. which is	
best, ibid. the qualities thereof,	ibid.
Sandaresos, a kind of gem,	617.d
Sandaser, and Sandareson,	617.e
Sandastros, a kind of gem or pretious stone, of the base fore	
617.c. called by some Garamantites,	ib.
the description thereof, and why it is much regarded by	
the Chaldeans, 617.d. male and female,	ibid.
Arabian and Indian,	ibid.
which Sandastros is best,	617.e
how Sandastros Sandaser, Sandareson, and Sandaresos, be	
distinguished,	ibid.
Sandaner,	416.k
Sandix minerall, a painters colour,	538.k
Sandix artificiall, how made,	530.g
the price of Sandix,	530.b
Sandix, Virgil took to be an herbe,	530.g
Sandragon, a colour of painters,	528.i
Sangenon, a kind of Opal,	614.l
Sanguis Draconis, or Sandragon, what it is,	476.g
how it is sophisticated,	476.i
Sanguin-Kod, what plant,	189.b
the medicinable vertues that it hath,	ib.
Santerna. See Borax of goldsmiths,	
the vertues medicinable that it hath,	509.c
Sapa. See Cuit.	
Saphire, a pretious stone,	620.l
diuers sorts, and which be best,	ib.
hard to be cut,	ib.
which be the male,	ib.
Sapron, what it is,	318.l
Sarcion, a fault in gems,	612.m
Sarcocolla, what it is,	197.c
the medicinable vertues thereof,	ibid.

Sarcophagus a stone, why so called, and the nature thereof, 587.d.
Sarda or *Sardoine*, a pretious stone called the *Cornalline*, 615.b. it is the one halfe of *Sardonyx*, 616.g.
Sardoin or *Cornalline* scale fairest of any other, 618.h.
 they be found much about *Sardeis*, and thereupon cooke their name, ibid.
 from *India* there came *Sardoin* of three sorts, 618.h.
 their severall differences, ibid.
 male and female, 618.i.
 in what regard this stone is accepted, ibid.
Sardachates, a pretious stone, 623.e.
Sardonyx of *K. Polycrates*, 601.a.
Sardonyx, a pretious stone, highly esteemed by *Scipio Africanus*, 615.b. why so called, ibid.
Sardonyches blind, which they be, 615.b.
Sardonyches the best to seale withall, ibid.
Sardonyches of sundry kinds: *Arabicke*, *Indian*, *Armenian*, 615.b.c.d.
Sardonyches artificiall, 613.e.
Sarmenus wrote first of *Horsemanship*, and therefore portrayed on horsebacke in brasse by *Demetrius*, 505.f.
Sara, what they are, 6.g.
Saturnus well, 404.i.
Satyrion, what it signifeth, 257.d.
Satyrion, an herbe, 257.a.b. 226.l. the description, ibid.
Satyrus a great architect, 575.c.
Satyrus, a writer in *Naturall Philosophie*, 615.a.
Sauce steame, what cureth, 128.b.
Savorie the herbe described, 30.k.
Sauge, an herbe, 246.k. the description and medicinable properties thereof, 142.k.
Sauge de Bois an herbe. See *Polemonia*.
Savine, a plant, of two sorts
 the names that it hath, 193.c.
 used in *Physicke* for *Cinamon*, ibid.
Sawites, a pretious stone, 193.d.
Sauvotones, an image of *Praxiteles* his making, why so called, 500.l.
Sauvos and *Batrachos*, two excellent workemen. See *Batrachos*.
Saxifrage, one of the names of *Maiden-haire*, and whereupon, 127.b.
Saxum, the ordinarie white chanke, 560.i.
Sayles for ships of purple and other colours, 5.c.
Saying into *Egipt*, wherefore wholesome, 412.l.
Saying upon the seas, for what diseases good, 303.d.
 against *Saying* and navigation, an innetine, 1.f.
 2.g.h. &c.
 S C
Scales. See *Dandriffe*.
Scall of the head, how to be cured, 52.g. 56.i. 43.f. 52.i. 59.d. 60.g. 72.g. 104.g. 105.e. 127.c. 133.c. 141.b. 142.l. 147.b. 155.f. 157.e. 158.m. 161.b. 163.b. 177.f. 178.g. 180.g. 191.. 196.b. 201.e. 207.f. 232.l. 249.e. 277.d. 287.e. 306.i. 324.b. 341.d. 353.a.
Scalds with seething water, how the fire may be taken forth, and the place kept from blistering, 351.e.
 See *Burns*.
Scalops medicinable, 438.k.
 good to cleanse the bladder, 444.b.
Scammonie an herbe, 251.b.
 the iuice of this herbe, ibid.
 how it is drawne, and to be chosen, 251.d.
 how to be used in purging, ibid.
 how sophisticated and discerned, ibid.
petio Scammonie, what herbe, 199.e.
 how it is eaten and what effect it worketh, ibid.
Scandix, the herbe, 130.g.
 a base moort, ibid.
Scarites, a pretious stone, 630.i.
M. Scarnus his excoffe in marble pillars uncontrolled, 563.b.
 his sumptuous building compared with *Nero* and *Caligula*, 583.d.e.
Scelerus, what disease, 112.k.
 See *Stomacace*.
Sceptra a *Philosopher* and writer in *Physicke*, 308.k.
Schista, what onions, 20.b.
Schista, what eggs, 352.k.
Schiston, what kind of milke, 317.e.
 the making of it, ibid.
 the vertues thereof, ib.
Schistos, a kind of *Alume*, 558.b.
Schistos, a stone of saffron colour, 367.d.
Schistos, a kind of bloudstone, 590.g.
 the vertues medicinable, ibid.
Schyttum, what it is, 471.b.
Sciatica, the gout in the hucklebone, what medicines it is cured with, 50.i. 56.k. 74.i. 105.c. 108.g. 134.m. 141.d. 155.d. 161.c. 180.g.k. 185.a. 186.k. 188.b. 190.k. 192.k. 199.a. 219.e. 224.k. 238.m. 248.i. 255.e. 263.e. 271.d. 273.c. 274.k. 275.a.b. 276.i. 281.c. 284.k. 287.c.f. 289.d. 290.k. 291.b. 315.a. 330.b. 334.i. 382.g. 385.a. 418.k. 419.e. 431.a. 442.k. 444.i.
Scincus described, 316.i.
Scincus medicinable, ib. & 433.e.
 how he differeth from the land *Crocodile*, 316.j.
 one of the ingredients of antidots, 316.k.
Scipio surnamed *Serapio*, and why, 81.f.
 honoured with a coronet of flowres by the people of *Rome*, ibid.
 he died poore, ibid.
 interred by a generall contribution of the people, 82.g.
Scipio Africanus the second, how much plate and coine hee had when he died, 480.m.
 what treasure he shewed in triumph and brought into the citie chamber, 481.a.
 what *Scipio Africanus* gave to his souldiers upon the winning of *Numantia*, 481.a.
Scipio Alobrogicus how much plate he had, ib.
L. Scipio allowed his charges by the citie of *Rome* for his solemne plaies, 480.i.
Scipio Aemilianus received an obsidionall or grasse coronet, 117.e.
Scolecia what it is, and how made, 509.b.
 why so called, 509.c.
 the vertues thereof, ibid.
Scolecion, what it is, 177.e.
Scolopendres, their venomous prickes how to be cured, 59.a.
 60.g. 61.b. 62.g. 75.e. 127.b. 155.f. 306.k. 418.l.
Scolopendres of the sea burst with fasting spittle, 300.k.
Scolymus the herbe described, 98.i. 130.m.
 the vertues which it hath, ibid.
Scombris,

Scombris fishes, how employed, 418.g.
Scopa *Regia*, what floure, 85.e.
Scopa Regia, an herbe and a kind of *Achillea*, good for the gargle and *Quinancie* in swine, 216.l.
Scopas, a singular *Imagew*, 566.m. his workes, 567.c. d. e. f. there were two of that name, both cunning workemen, ibid.
 504.k. wherein they excelled, ibid.
Scordium or *Scordus*, an herbe found by *K. Mithridates*, 220.i. the description by him set downe, ib. the vertues medicinable, ib. good for the bladder and the stone, 254.g.
Scordotis, 245.f.
Scoria in trying of gold ore and other mettals, what it is, 467.b.
Scorpites a pretious stone, 630.i.
Scorpion, an herbe, 230.l. why so called, ibid. See *Tragos*.
Scorpions hurt with *Aconitum*, how they be cured, 270.i.
 pricked once by a *Scorpion*, shall neuer after bee stung by *Hornet*, *Wasp*, or *Bee*, 299.c.
Scorpions neuer sting the ball of the hand, 361.c.
 against *Scorpions* and their sting remedies, 36.k. 39.c. 40.m. 42.b. 43.a. 44.e. 46.l. 54.i. 55.e. 56.i. m. 59.a. 60.g. 61.b. 62.g. 63.d. 64.b. 65.b. 69.d. 71.c. 73.b. 74.g. 75.e. 76.m. 77.e. 101.d. 103.f. 105.e. 106.k. 107.b. 109.a. 110.k. 113.c. 121.c. 126.b. 131.d. 134.i. 138.f. 146.l. 153.b. 155.f. 166.l. 167.e. 168.m. 170.k. 173.c. d. e. 174.i. 178.k. 179.b. 181.f. 184.k. 194.i. 195.d. 196.g. 199.b. 206.g. 230.l. m. 237.f. 246.k. 270.b. 276.g. 277.c. 288.l. 289.b. 301.a. e. 322.k. 361.b. c. d. 413.b. 418.g. k. 424.g. 451.b. f. 433.e. 443.g. 443.f. 455.b. 556.m. 561.d. 624.g.
Sea Scorpion medicinable, 438.g. 444.g.
Scorpionion, what herbe, 126.i.
Scorpius, an herbe, 122.j. why so called, ibid. two kinds thereof, ibid.m.
 Scratching of the body is healthfull, 303.d.
Scyllus, an *Imagew* and grauer in *Marble*, 568.b.
Scyricum, 476.l. an artificiall painters colour, how made and used, 530.b. 528.k.
Seyros the *Island* yeldeth a stone of a strange nature, 587.d.
Scythica, what herbe, and why so called, 223.e. the vertues, ib. from whence it cometh, 269.d.
 S E
Sea waters made hot, in what cases medicinable, 412.k.
Sea water actually cold, medicinable, ib. outwardly applied, for what good, ibid.l.
Sea water ought to be had from the deepe, farre from land, 413.a. how to be gotten inwardly, ib. how to be tempered for procuring vomit, ibid.
Sea water clysterized, ibid.
Sea water artificiall how to be made, 413.d.
Sea a most wonderfull element, 425.c.d.
Sea weed called in *Latine* *Fucus Marinus*, 258.b.
 the description, ib. three kinds thereof, ibid.
Seale, a fish, his vertues medicinable, 437.g.
Seale of the *Romane* *Embassadours*, was the image of *Augustus* *Cesar*, 601.d.
Secundarium, what kind of *Minium*, 476.k. 477.d.
Sedum, an herbe. See *Houfleeke*.
 Seeds of herbes how they differ, 23.a. b. c.
 garden Seeds, some more strange than other, 33.a.
 Seeds of herbes lesse effectually, after incision made in the roots, 292.g.
 Seed naturall in men what doth encrease, 77.f.
 shedding unwillingly how cured, 48.g. 72.i. 130.k.
Segullum, what earth it is, 466.l.
Selago, an herbe like *Sauius*, 193.d. with what ceremonious circumstances to be gathered, ibid.
Selecti at *Rome*, who they were, 490.g.
Selenites, an admirable pretious stone, 629.d.
Selinas and *Selinoides*, what kind of *Coleworts*, 48.k.
Selinus earth, for what it is good, 559.f.
Senators of *Rome* how knowne from *Knights* or *Gentlemen*, 459.e.
Senerio, what herbe, 238.k. See *Groundswell*.
Sengreene. See *Houfleeke*.
Sences how preserved, 74.b. i. how stupified against cutting or sawing off a member, 314.l. m.
Sennie the herbe how it groweth, 31.b. the temperature and kind thereof, 31.b. c. how to be dressed, 31.c.
 three kinds thereof, 73.f. the qualities that it hath, 73.f. 74.g.
Sennie juice how it is drawne, 74.k.
Seps, a venomous worme or a kind of *Lizard*, 157.b. 163.d.
 it cureth the owne bite, 363.d. it is otherwise called *Dipfas*, 173.a. remedies against the venom thereof, 157.b. 434.g.
Septimileius for couetousnes of gold killed his deare friend *C. Gracchus*, 463.e.
Serapius, a kind of *Orchis* or *Stundewort*, 256.m. the description, 257.a.
Serapion, a painter, that loved to paint great pictures of *Theatre*, &c. but man or woman he could not draw, 544.i.
Seriphium *Wormewood*, the vertues that it hath, 443.d.
Serpents how they are known to be retired and gone, 132.k.
Serpents when they haue stung a man, neuer retire againe unto the earth, but die as it were for remorse of conscience, 358.k.
Serpent hardly plucked out of their holes but by the left hand, 299.c.
Serpents gather together by the perfume of the bone about their owne throat, 321.d.
Serpents chased away by the fume of an *Harts* horn burnt, 321.d.
 what other means there be to chase away *Serpents* and resist their poison, 38.k. 39.b. 40.b. l. 42.g. 43.m. 43.a. d. e. 45.e. 47.a. b. 50.g. 51.a. e. 52.l. 53.c. 54.l. 56.i. l. 57.d. 56.a. 60.g. l. 61.c. 62.g. 63.b. c. d. e. 64.k. 65.b. 74.g. m. 77.e. 78.b. i. 101.d. 103.a. 104.g. k. 105.c. 106.g. 107.b. 108.i. l. 110.k. l. 118.m. 124.i. 125.a. d. 126.b. 129.d. f. 131.d. f. 134.i. 135.d. 138.k. 139.b. e. 142.k. l. 143.b. 148.i. 149.a. 153.b. 162.g. 165.b. 168.k. 169.e. 172.l. 173.d. 177.c. 178.m. 179.a. e. 180.b. 181.f. 182.b. 184.k. 186.g. h. k. 187.c. f. 188.m. 189.e. 192.k. 195.d. 198.i. 199.b. c. 200.g. 201.c. d. 202.k. 206.l. 212.j. 222.m. 223.d. 226.k. l. 227.a. b. c. e. f. 228.k. l. m. 229.e. d. 230.b. j. 233.a. 235.e. 237.b. 239.a. 254.m. 258.i. 274.i. l. m. 275.e. 278.k. 282.g. 283.b. 284.k. 288.l. 289.a. 290.i. 300.g. k. 301.a. 306.i. k. 307.b. 312.m. 316.g. 318.b. 321.e. 322.b. i. k. 353.b. 355.d. e. 356.g. h. 358.g. 359.a. b. c. 413.b. 418.l. 422.b. 431.b. f. 434.g. i. 435.c. 557.d. 561.d. 573.b. e. 589.e. 590.g.
 Serpents

The Table to the second Tome

Serpents how to be brought asleepe, and mortified,	316.b
Serpyllum, what herbe it is, and the sundry kinds,	75.d
Serrani, a familie in Rome wearing no linnen,	21.l
Serratula, an herbe. See Betonie.	
Serta and Servia, what they are,	80.i
Servants many retained in one house, what abuse and inconvenience thereof,	459.a
M. Servilius Nonianus what a foolish ceremony he observed to keepe himselfe from bearded eyes,	298.k
Servius Tullius K. of Rome, how hee was supposed to bee conceived, and whose sonne,	599.d
Sesama, the medicinable vertues that it hath, 140.g. the discommodities proceeding from it, ibid. the oyle thereof,	140.g.b
Sesamoides, an herbe, and the medicinable vertues thereof,	140.g.b
Seseli. See Siler.	
Sesostrius, a proud prince, K. of Egypt, vanquished by Eusebius,	464.i
Serferitius, a silver piece of coine at Rome, worth what,	463.a.b
Serapius, a kind of Bulbe,	19.b
Serwall the vertues thereof,	104.l
Sextius Niger, a writer in Physicke,	72.b.316.k
S H	
Shaddow in pictures,	528.b
Shaddow-like fish Sciana medicinable,	444.k
Shaking of limbs how to be helped, 141.b. See trembling.	ibid.
Sharewort, an herbe, 256.b. the description,	ibid.
Share, and the infirmities thereof, how to be avoided, 256.b. See more in Groine and Fishes.	ibid.
Sheepe hurt by tasting Pimpernell, how they cure themselves,	234.l
Sheepe without gall in Pontus, and the reason of it,	276.i
Sheepe rotten or otherwise diseased, how to be helped, 144.b. 221.a. how to recover their stomackes, and make them fall to their meat,	351.c
Shells of fishes serving as trumpets to sound withall,	451.e
in steed of compasses to lude oyle,	ibid.
Shells of egges and fishes, why crushed and broken when the meat is eaten forth of them,	296.i
Shields and fencecheons of armes, in memoriall of ancestors, who brought up first at Rome,	524.i
Shields why called Clypei,	ibid.l
Shields presented the lively images of those which bare them,	ib.
Shield of Asdruball,	524.m
Shingles how to be cured, 44.k. 105.a. 122.k. 139.a. 143.c. 146.k. 157.e. 158.m. 174.k. 265.d. 278.l. 284.k. 287.b. 309.d. 337.a. See more in S. Antonies fire.	
Ships provided for transporting Obeliskes out of Egypt to Rome,	575.e
Shoulder blades pained, how to be eased,	255.e. 312.b
379.c.	
Stinds of Flax how employed,	4.k
hard-shrew biting is venomous, and the remedies against it. 43.e. 50.i. 55.e. 56.m. 71.e. 167.a. 168.m. 277.c. 322.k. 360.m. 361.a.	
She will not goe over a cart-trail.	361.a

S I

Sibylla, three Prophetesses, their statues at Rome of Brasse,	491.d
L. Siccus Dentatus, a brave warrior, 116.k. honoured with sundry chaplets for his good service, ibid.	
Sicilie aire killeth scorpions,	623.e
Scycione, a city famous for workemen in mettall and minerals,	564.b
Sicyone in name for cunning painters,	547.b
Sides, pain or stitches how to be eased, 57.d. 123.a. 246.l. 247.b. d. 248.b. 275.e. 381.e. f. 442.k. See more in Pleurisie.	
Sideritis what herbe, 123.b. the vertues thereof respectiue to the eyes, 233.f. wonderfull in staunching of bloud,	263.e
Sideritis, a pretious stone, 629.d. the vertues thereof,	ib.
Sideropacilos, a pretious stone, 629.d. why so called, ibid.	
Signet or signe manuell. See Ring.	
Signum, what kind of workes,	554.k
Sil, a colour minerall, what it is,	484.b
Sil, which is best, 484.b. the price,	ibid.
Sil Atticum, ib. the price,	ibid.
Sil Scyricum, 484.i. the price,	ibid.
bright Sil,	ib.
the use of all sorts of Sil,	484.i
Silanon, a fine Imageur in brasse, 502.l. be liuely expressed Apollodorus the cunning workman,	ibid.
Silanus, an herbe, 255.c. the description,	ibid.
Silence at the board from one end to the other, what it presageth,	298.g
Siler or Sefeli, an herbe, 41.c. the description thereof, ib. the severall kinds and properties that it hath,	ibid.
Siligo, the fine wheat, what medicines it doth afford,	137.f.
Silphium, 8.b. engendered by shoures of raine, 133.e. the medicinable vertues thereof,	134.g
the root of Silphium hard of digestion, and breedeth ventosities, ib. it stoppeth the passage of urine,	ib.
Silurus a fish medicinable,	442.b
Silybum, an herbe, 248.g. the vertues,	ibid.
Silybus, a base herbe,	130.m
Simonides, a painter, 550.b. his workes,	ib.
Simples and compositions compared together,	135.b
Simples or herbes of lesse effect, the more they bee used,	292.g.
Simus, a painter, 551.b. the pictures of his drawing,	ibid.
Sinadian gray marble,	522.i
Sinewes shrunk, how to be mollified and drawne out, 129.b. 134.l. 138.g. 173.c.	
Sinewes stiffe how to be made supple,	161.f
Sinewes benumbed with cold, what doth recover,	74.l
for sinewes and their infirmities in generall, comfortable medicins, 48.m. 49.b. 137.a. 187.e. 212.l. See more in Nerves.	
Sinopsis or Sinopum, a painters colour, why so called, 528.k. of diuers kinds, ib. l. which is the best, ib. the price, ib. the use in painting, ibid. the medicinable vertues,	528.l.m.
Sinnessa, water medicinable,	402.l
Sion, what herbe, 130.k. the description,	ibid.
Siphnian stone, employed in vessels to seeth meat,	592.b
Sirix.	

of Plinies Natural Historie.

Siraxis in children, what disease, 126.i
Sirugus, a strange and unknowne beast, 399.d
Sisapone, a territory in Spain famous for a mine of Vermilion, yielding to Rome a great rent yearly, 476.i
Silybrium, an herbe described, and the vertues that it hath, 75.f
Sistrinchios, a kind of bulbous herbe, 19.b. the strange nature that it hath, ibid.

S K

Skab and scurfe in man or beast how to be healed, 36.g
42.b. 49.c. 58.b. 64.k. 74.i. 128.k. 129.a. 146.i. 149.c. 155.f. 161.a. 166.l. 168.f. k. 169.a. 173.c. 197.d. 319.f. 338.l. 353.a. 370.f. 377.d. 413.b. 418.i. m. 419.b. 420.g. l. 446.m. 450.b. 506.k. 516.b. 557.e.

Skald heads how to be healed, 43.f. 52.i. 59.d. 60.g. 72.g. 105.e. 127.c. 133.c. 141.b. 142.l. 147.b. 155.f. 157.e. 158.m. 161.b. f. 163.b. 177.f. 178.g. 180.g. 191.c. 196.b. 201.e. 207.f. 232.f. 249.e. 277.d. 287.e. 306.i. 324.b. 341.d. 357.a.

Skarefire named at the table ominous, 297.e
how the danger of a Skarefire may be aueried, ibid.

Skars and their strokes or marks remaining, how to be reduced to their naturall colour, 36.b. 39.f. 55.f. 61.b. 65.a. 144.g. 149.e. 189.f. 266.b. 286.i. 287.a. 319.f. 328.b. 339.a. 394.l.
medicins skinning without Skar, 51.a
Skars or marks how to be taken out of the skin, 239.d. 245.a.

Skars rising up above the flesh, how to be brought downe, 430.b. 448.b. 475.a. 518.l.

Skars or wild Plums what vertues they affoord medicinalle, 169.d

Skin of face or body blemished with spots and speckles unseemly, by what meanes it may be cleansed, 37.a. 106.i. 144.g. 157.f. 160.l. 171.e. 184.k. 185.e. 200.k. 207.e. 268.f. k. 308.g. 311.a. 314.k. 318.m. 377.b. e. 475.a.

Skin piked and skaled, and full of scurfe, how to be mundified, 103.b. 158.m. 377.c.

Skin of the face rough and riueted, how to be made smooth and euene, 162.k. 368.k. 311.a. 327.c. 377.c. f. 420.g. 589.a. 591.c.

Skin looking wan and dead, how to be made fresh and liuely, 377.c

Skin red and itching how to be delayed, 337.a

Skin of the body how to be made faire, white, and smooth, 396.i. 416.b. 559.f.

Skin scorched with cold wines how to be helped, 311.a

Skirwort wild, the properties thereof, 41.a
Skirwort root accepted by Tiberius the Emperour, 18.b
how to Skorne clothes, 157.f

S L

Slaves three enfranchised by Claudius the Emperour, surpassed M. Crassus in riches, 479.e
Slaves who having bin chalked on their feet for the market became wealthy afterward, and in honourable estate, 561.a. b.

Sleepe by what meanes it may be procured, 42.g. 43.d. 44.l. 46.g. k. 49.a. 66.i. 67.e. 68.g. h. i. m. 102.k. 104.b. 105.a. d. 161.c. 162.g. i. 166.g. 171.d. 191.e. 234.e. 249.d. 259.d. 260.k. 277.e. 303.f. 341.e. 398.k. 424.l. 430.g. f.

Sleepe how to be discussed in a drowsie disease, 144.b. 398.l. 446.b. See more in Lithargie and Drowsie disease.

Sleeping on the right side commended, 303.e. See Lying in bed.

how to Sleepe securely without fearefull dreames and visions, 357.a. See Illusions.

Sloen, their vertues in Physicke, 169.d

S M

Smaragantes, a mountaine, why so called, 612.m
Smarides, small fishes medicinable, 444.m
Smyrnum, the herbe, how strangely it groweth, 30.g. why it is so called, ibid.

S N

Snap-dragon, an herbe, 231.e. the description and vertues, ib. See Calmes snout.

Snails with shells excellent for the lungs, 380.i. k. how to be dressed, ibid. which be the best, ibid. l. those of the river, and their medicinable vertues, 435.e

Snake stonch of greas efficacie, 376.l

Snakes, whether they cast their slough at the rising of the Dog starre, or no, 376.k

Snake dedicated to the god of Physicke, 358.g
in the forme of a Snake Esculapius came to Rome, 358.b.

Snakes when they be venomous, 358.g
for Snakes and Adders payson, what remedies be appropriate, 226.m. 227.a. 294.l. 358.g. 435.c.

in Sneezing, why we wish health to our neighbour & friend, 297.c.

Tiberius Caesar very ceremonious in that point, of being salued when he sneezed, 297.c

Sneezing by what meanes it is prouoked, 55.d. 109.b. 193.a. 218.k. 232.l. 239.e. 291.a. 430.l.

Sneezing immoderat, how to be staid, 66.i. 155.e. 183.e. 218.l.

Sneezing in what cases wholesome, 304.k

Snow laid for and sought in Summer, 11.e
Snow water, whether it be lighter and better than spring water, 406.g

S O

Soders of sundry kinds, 472.g. of Gold, ibid.
of Iron, 472.b. of Brasse in masse, ibid.
of Brasse in plates, ibid. of Lead and marble, ibid.
of blacke Lead, ib. of Tinne, ib. of Silver, ib.

Sochus, a King of Egypt that reared Obeliskes, 574.l
Socrates, a famous Imageur in marble, 569.a
Socrates a painter highly commended, 549.a. 569.a. his workes, 549.a

Sole fish medicinable, 443.f

Solanum, what herbe, 112.b. the hurtfull qualities that it hath, 112.i

Soldarella, or sea Colewort, a purgative, 51.c
Soldanella, 359.c
Solifage, or Solpuga, what Insects, & the remedies against them, 145.b. 361.c

Solon of Smyrna, a writer in Physicke, 71.b

Soluble, how the body may be made and kept, 74.b. 121.f. 122.b. 126.b. 137.a. 172.l. 164.b. 166.l. 167.a. 169.c. 170.g. 172.f. 180.k. 181.a. c. 182.m. 186.g. 192.l. 199.e. 250.k. 254.l. 267.c. 276.b. 277.a. 279.e. 287.b. 288.g. 311.b. 317.d. 331.b. 380.f. 384.k.

The Table to the second Tome

384.k.417.d.419.c.437.c.442.l.443.c.470.k.
a Soot to beautifie and colour the eyebrows, 324.l
Sope, whose invention, 328.l. *how it is made,* ib.
Sope and scouring balls consisting of salt, 417.d
Sopewort or Fullers weed. See *Cadicula*.
Sophocles his foolish opinion as touching Amber, 607.a
Sopylos, a brasse painter, 551.b
Sores in face or head how to be healed, 202.b. See *Plcers*.
Sorcerie condemned by Pliny, 273.c. See *Charmes*.
Sorel or Sourdocke, 33.d.e.73.a. *the description and properties thereof,* 73.b
Sornatius, a writer in Physicke, 438.b
Sorufes, a fruit, their medicinable vertues, 171.b
Sorie, a minerall, 509.e.510.g. *of diuers kinds which is best,* 509.g. *hurtfull to the stomacke,* ib.
Sosimenes, a Physitian and writer, 66.l
Sotratius, a famous Architect and Enginer of Gnidos, 578.b
Sotacus, a writer, 586.m
Sotira, an expert midwife and writer in Physicke, 309.c
Sow-bread, what herbe, 229.c.d. See more in *Syclaminus*.
Source-milke. See *Cherne-milke*.
Sow-thistle, an herbe, described, 131.b. *the kinds thereof and the properties,* 131.b.c

S P

Spathe, a country studious in simples and herbes, 224.b
Spaine the goodliest country next to Italie, 632.m
Sparganium, what herbe, 228.l
Sparta, what they are, 6.g
of Sparta, 6.g. the description, ibid. *appropriat to Spaine,* and may be called *Spanish broome, ibid.* *the uses thereof,* ib.
6.i.k.l. the nature thereof, ib.
Spartopolis, a pretious stone, 630.m
Sparton what it signifieth in Greeke, 188.g
Spartacus forbidd to haue plate of siluer or gold in his camp 463.f
Speed or successe how to be obtained in law suites, 627.f
in warre, 628.g
Spasme. See *convulsion and Crampe*.
Spels. See *Charmes and Words*.
Spelt. See *Zen*.
Sperage of the garden excessiue big, 11.d
Sperage wilde of the garden, and of a middle nature, 27.c.d
Catoes rule for their ordering, 27.c.f.28.g.b. *their medicinable vertues,* 53.a
Sperme. See *Seed Naturall*.
Sphinx in brasse most curiously wrought by Phidias, 566.b
Sphinx a monstrous rocke in Egypt, 577.b. *the description thereof, ib. b. c. thought to be the monument wherin king Amasis was entombd,* ib.
Sphragides, certain pretious stones that sente fairest, 620.b
Sphragis what earth, 529.a
Sphyrana, a fish. See *Sudis*.
Spicknell. See *Memm*.
Spilumene, an image of Praxiteles his making, 500.k
Spirits how renewed and recovered, 59.c.130.b
Spirits made dull by some water, 403.c
Spitting observed superstitiously in auerting witch-craft, 300.g. *in preuening lameness,* ibid. *in turning away the displeasure of the gods for some bold petition, ibid.*

in fortifying the operations of medicines, 300.b
in curing the palsy that one hath hurt, and repemed therefore, ibid. *in helping a beast swayed or bipped by a blow giuen,* 300.i. *in giuing a foreender blow to an enemy,* ib.
Spittle conueighed backward behind the eare, what it signifieth, 297.d
Spittle fasting of what vertue, 300.g.k
Spittle fasting of a woman medicinable, 308.b
Spittle of certaine men, medicinable against serpents, 299.a
Splanchnoptes, an image in brasse curiously wrought by Stipax, 502.l. *why so called,* ibid.
Splanchnoptes, 123.c
for the Spleen pained, swelled, hard, obstructed, or otherwise diseased, proper remedies, 39.d.40.k.45.c.49.f.51.b
52.g. 56.b.i. 60.g. 61.a. 62.f. 64.l. 67.d. 73.d. 75.e 101.b. 103.b. 104.g. 105.c. 119.d. 121.c. 122.g 124.l. 127.c. 128.l. 130.k. 143.b. 144.b. 146.k. 150.g. 164.g. 167.c. 169.f. 173.d. 178.g. 180.k. 187.c 188.b. 189.e.f. 190.i.l. 193.a. 196.l. 198.i. 207.d 208.g. 216.m. 253.d. e.f. 254.g. 263.c. 274.l. 275.e 277.c. 287.c. 288.b. 289.d. 290.c. 291.c. 313.b. 318.i 330.b.i.k. 341.d. 352.i. 381.d.e. 444.b. 430.g. 431.e 443.f. 444.g. 447.a. 516.i. 529.b.
Splenion, what herbe, and why so called, 217.a
Sploches sweet in the skin, how to be brought to a fresh colour, 339.a
Spodium of Lead, 520.g. *how washed,* ib.
for Spodium a succedan, 158.l
Spodos what it is, 511.f. *the nature of it,* ibid.
Spodos of sundry sorts, 512.g. *how to be washed, ibid. b. the vertues,* ibid.
Spodos Lawriosis, ibid.
the best Spodos, ib.
what things serue in stead of Spodos, 512.i
Spondylium, an herbe, 181.a. *the vertues thereof in Physicke,* ib.
Spondylus, a fish medicinable, 446.i
Spongia in Sperages, what they be, 27.d
Spongites, a pretious stone, why so called, 629.d
Spots and speckles blacke in the skin, how to be taken out, 62.i.161.e.266.b.314.k.377.d.
Spots or yron moles how to be taken out, 47.d.161.e
Spraines of sinewes how helped, 334.m
of Springs and fountaines a discourse, how to find them, 408.i.k.l.m.409.a.b.
Springs of waters arising upon the stocking up and cutting downe of woods, 410.k
Spret, salted, medicinable in some cases, 434.b
Spuma Argenti. See *Litharge*.
Sponge of fresh water, a kinde of herbe, 280.g. *why called Conforma,* ibid.
Sponge of male sex, 423.a. *it was wont to be died purple,* ibid.
Sponges of female sex, 423.b
Sponges how they are made white, ib.
Sponges haue a sensible life, ibid.
Sponge stones what they be, 589.d. *why they be called Te-colithi,* ibid.
Sponges used in frictions, and rubbing of mens bodies, 424.k. mbr.

of Plinies Naturall Historie

whether Spunges haue hearing or no, 423.c
which Spunges be best, ibid.
the generall use of all Spunges, 423.d.e
they serue in stead of Lana Succida or unwashed grea- sie wooll in wounds, 424.g
Sponge ashes medicinable, 424.i
Spunges commonly diuided into Africane and Rhodiacke, 424.k
where the finest and most delicate Spunges be found, ib.
Spurges, an hearbe, 284.i. *the description,* ibid.
Spurges. See *Tithymales*.
Spiders venome, what remedies for it, 65.b.187.d.196.i 431.f.433.f.

S Q

Squatina, a fish, the skin whereof is medicinable, 444.l
Squilla or sea Onion, 18.l. *the description & properties, ib. more qualities that it hath,* 99.e. *the sundry kinds,* 18.m
how to be orderd, 19.a
Pythagoras wrote a booke of Squilla, 18.m
Squilla male and female, 51.c. *how to be prepared, ib. how to be boiled or calcined,* 51.e
Squilla the lesse. See *Pancration*.
Squillitick vineger the vertues thereof, 156.l
Squinancie, a disease of the throat, with what medicines it is cured, 36.l.39.d.42.k.44.g.61.c.66.g.75.e.76.i 803.e.134.f.135.d.147.e.157.b.158.g.172.b.183.c.e 196.g.205.e.212.l.245.b.d.277.d.287.d.301.d.e.f 311.b.328.k.378.b.k.l.419.b.422.k.432.f.442.g.b 471.e.510.i.
Squinanth ribb described, with the kinds and vertues thereof, 101.f.102.g

S T

Stachys the herbe described, 199.c. *the vertue thereof,* ib.
Stag, Hind, Hart, red Deere, enemies euery way to serpents, 321.d. *their homes, ib. skin, ib. e. rennet of a Hind-calf* 321.f.
generators of a Stag and his pizzle, ib. rim of the paunch ib. *teeth, ib. their blood draweth serpents together, ibid.*
Staining of clothes in Egypt, how it is praetised, 550.c
the commoditie of clothes so stained by seething, ibid.d
Staphis or Astaphis Agria, what hearbe it is, 248.l
Starch-fish medicinable, 433.f
Starch-floure, the properties of it, 140.l
Statere, what drinking cups or mazers they were, 482.b
Statice, what herbe, 250.b
stately Statues first when they came up at Rome, 482.l
Romanes honoured at Rome with Statues by strangers, 493.d.
Statues erected for them at Rome who were killed in embassage or seruice for the state, 491.f
the measure ordinarily of Statues, three foot, 492.g
Statues on foot at Rome, 492.l
Statues of siluer when first admitted in Rome. 482.m
483.a.
three Statues of Anniball enen in Rome, 493.e
Statues on horsebacke, a deuise comming from the Greekes, 490.l
women honoured with statues on horsebacke, 492.l
Statues riding triumphant, or otherwise in charriots, when they were first seene at Rome, 490.m
Statues erected upon columns, are of great antiquity, 491.a
what they signified, 492.k

Statues without any robe, 491.e
Rome full of Statues and images, 494.i
Statues Thufcanica, ibid.
Statuifacere described, 148.l. *it is not Vva Taminita,* ibid.
where it loneth to grow, ibid. m. *the kernels danger- ous inwardly taken,* 149.a. *the medicinable ver- tues,* ibid.
Steatites, a pretious stone, 630.b
Steatomata, what kind of wens and how cured, 265.c
Steele what it is, 514.i. *diuers kinds,* ibid.k
Stellio, a word odious what it importeth, 388.i
Stellions (the Lizards) their venomous, sightfull, and enni- ous nature to mankind, 388.i. *most aduerseto scorpions,* 361.b. *how they cast their fough or skin,* 388.k.l. *the same is medicinable,* ibid.i
the diuerse names and description of these starre-Lizards, 361.b
Stellions, 361.b
against the sting and poyson of Stellio, remedies, 140.g
Stephanomelis, what herbe, 263.f
Stepanoplocos or Stephanopolis, a picture of Glycera, 80.l
Made by Pankas the painter, who loued Glycera, 546.l
Stephusa, an image of Praxiteles his making, 500.k. *why so called,* ibid.
Stercilith, what kind of Litharge, 474.k
Stergethon, an herbe. See *Honflecke*.
Q. Stertinius, a famous Physitian at Rome, and a great taker of fees, 344.k. *he and his brother rich, sumptuous, and died wealthy,* 344.l
Stian, or such like hardnesse rising in the eiels, how to be cured, 324.m
Stibi or antimonie, 366.g
Stibium. See *Stimmi*.
Stiches in sides how to be eased, 104.b.120.l.121.e 126.k.193.a.202.g.516.g. See *Sides and Plurisie*.
Stiffe and starke for cold, how restored, 263.a
Stiffenesse of lims how to be made limber & supple, 422.k
Stilo Praconinus his merrie scoffe vpon a Spaniards signes 601.e.
Stimma, a minerall, 473.d. *of two kinds, ib. their descrip- ti- on, ibid. their medicinable vertues,* 473.d.e. *principall for the eies, ib. how to be prepared,* 473.f.474.b
Stinking smell of any part of the body how palliated, 128.b 161.d.
Stipax, a curious imageur and his worker, 502.l
Stipendium and Stipend, whereof these words are deriued, 462.l.
Strobe, what herbe, 120.l
Strochus, an herbe, where it groweth, 289.f
Stomacacum, what disease, 110.k. See *Scoletyrbe*.
anguis of Stomacke is most painfull next unto strangurie, 213.c.
Stomacke weak and feeble how to be comforted, 289.g
383.b.437.c.558.k.591.a.624.l.
paine of Stomacke how eased, 76.l.102.k.l.106.m.138.m 163.e.172.m.186.i.196.b.283.a.312.b.
for Stomack infirmities and diseases in general, appropriat remedies, 37.f.38.i.41.a.42.k.46.g.47.e.48.b.k.l.50.l 51.d.52.g.55.e.57.c.60.i.63.a.70.b.74.g.k.76.f 77.e.78.m.102.k.l.111.c.119.c.122.g.129.a.130.g.i 141.f.142.g.147.a.148.g.161.f.163.b.164.i.k 170.b.174.k.197.f.200.k.m.246.l.m.288.i.380.l.m 424.g.432.g.609.c.

Sto

The Table to the second Tome

Stomacke exulcerat how cured,	329.d	Success against aduersary at the barre, and enemy in field,	315.d.e. 354.i. 357.b. See more in
Stomacke gnawing how to be pacified,	283.a. 329.d	Speed.	
Stomacke, what composition, and the use thereof,	164.m	Succinum Amber, why so called,	607.e
the reason of the name,	ibid.	Sudanes, a writer,	573.e
Stomatice, Panchrestos, and other stomaticals, how made,	170.b. 192.b.	Sudis, a fish, 452.l. the nature of it and the description,	ibid.
Stone Sauge, an herbe. See Sederitis.		Suili, what kind of Mushromes, 132.m. their deadly	ibid.
Stone that scorneth fire,	593.d.e	poison,	133.a
a Stone swimming whole, sinking broken,	587.d	Sullanders in horses,	338.l
Stones are not of like nature to abide the weather, in building,	593.e. d. e.	Sulphur-vif is naturall, 566.i. why it is called Aprron,	ibid.
aire of a diuers nature and constitution for building,	588.d	ibid. See more in Brimstone.	
Stone in bladder or kidneys how to be broken and expelled		Sumach of carriers,	192.g
out of the body. 39.d. 54.b. 60.k. 66.i. 72.k. 73.d. 74.l		Sumach of the kitchen,	ibid. b
76.b. 77.f. 78.g. 101.a. d. 104.b. 111.a. f. 120.i. k. 122.b		Sun-burning how to be taken away, 161.b. 306.b. 327.g	
125.e. 127.b. 128.l. 130.d. 143.a. 173.b. 175.b. 192.m		Sun and salt singular for the gout,	419.b
195.d. 196.k. 206.h. 254.g. i. 255.c. d. 281.b. 283.b		Suns gems, apertious stone, why so called,	629.c
284.m. 289.a. 301.c. 313.b. 332.l. m.		Superstition of Pagans in their diuine seruice,	294.l. m
the paine of the stone how eased, 194.b. 384.g. b. i. 402.l		their Superstitious ceremonies, obserued at their meat,	297.e. f.
403.b. 430.g. 443.c. 444.g. b. i. 489.d. 629.f.		as touching Superstitious ceremonies, Seruins Sulpitius	ibid. f.
a Stone voided out of the body medicinable,	301.c	wrote a booke,	ibid. f.
Stones fassified for building, how to be prepared that they		Suppuration how to be discharged out of the breast,	200.l
may serue,	593.e	Surbating of the feet how to be helped,	185.b
a Stone dog-bitten, causeth diffention in what horse soener		Surfet vpon fish how to be helped,	362.k
it is,	303.d	Surfets in generall what doth resist,	119.d
the Vulgar Stone, what vertues it hath,	285.a	Sutherland the herbe, described, 91.b. c. the vertues	ib.
Stone cutting and grauen more ancient than painting or		that it hath,	108.i
casting brasse,	565.c	the degrees in goodnesse,	
Storax the gum how to be chosen, 180.l. the vertues that it			
hath,	ibid.		
Storax,	ibid.		
Strawberie tree. See Arbur.		Swallowes young that be wild, are better for Physick than	
Strangurie counted the most painefull disease,	213.c	other, 378.i. those called Riparia be best, ibid. how to be	
for strangurie or pissing droppeale, the remedie, 40.k. 41.d		calced,	ibid.
54.i. 78.g. 106.i. 111.a. d. 119.d. 127.c. 131.d. 157.f		Swelling occasioned by windinesse, how cured, 136.k. See	
179.b. 185.a. 188.b. 195.c. 199.c. 202.g. b. 216.b		Pemisties.	
234.g. b. 255.b. 274.k. 283.b. 284.m. 290.m. 316.m		Swellings hard how to be alaied, 337.b. See Tu-	
356.a. 384.g. b.		mour.	
Strangurie what causeth,	384.b	Sweat of certaine mens bodies medicinable,	299.a
Stratiotes, what herbe, 204.m. the description,	205.a	Sweats how to be procured, 67.b. 103.c. 122.b. 160.l	
the vertues medicinable that it hath,	ibid.	162.k. 167.a. 182.g. 187.f. 193.c. 202.b. 333.c. 284.k	
Stratonice the Queene, wife to K. Antiochus, pictured un-		290.k.	
seemly by Clefides,	549.e	Sweats symptomaticall, diaphoreticke, stinking, and immo-	
Stratoniceus, a cunning grauer, 483.e. his workmanship,		derat, how to be repressed, 58.k. 78.k. 102.m. 153.c	
ibid.		160.i. 161.e. 174.k. 341.c. 421.f. 558.k. 560.i.	
Streames of riuers how to be staied,	316.b	Swimming in water for what it is good,	414.g
Stricture in yron what they be, and why so called,	314.i	Swine how they will follow one,	399.f
Strigiles of gold, what they be in Spaine,	465.e	how cured of squinies,	268.l
Stroking of the head at such a day of the Moone obserued		Swine how to be cured of all their diseases, 206.b. 450.k	
for what purpose,	298.i	Sword-fish his names. 428.i. his description and na-	
Strombi, certaine Winkles or shel-fishes medicinable, 446.i		ture.	ib.
Strongyle, what Alume, 558.l. of two sorts, and their de-		Swouning or fainting of the heart how to be recovered, 556	
scription,	ibid.	180.g. 381.b.	
Strophia and Strophiola, what they be,	80.i		
Strumea. See Cronfoot.		Sybaris, a riuer. 403.c. the water thereof is of wonderfull	
Strumus, what herbe,	280.g	operation.	ibid.
Struthium, what herbe	10.g	Syce, what it is.	42.l
Stychnos, 280.g. what herbe,	112.b	Syce. See Peplos.	
Styx, a fountain yeelding a venomous water, 400.b. 405.a		Sycitis, a pretious stone.	631.a
		Sycamore, what tree, and the vertues in Physicke. 169.e	
		Sylla Dictator the richest Romane that euer was, 479.d	
		Sylla Dictator honoured with a chaplet of greene grasse,	
		117.c. d.	117

of Plinies Naturall Historie.

be signed with the image of King Ingurtha prisoner,	601.e.	Talent simply signifieth the Attick Talent, 548.k. what	ibid.
Syluer when it was first stamped into coine at Rome,	462.m.	Talent Egyptian what it weigheth,	464.i
Romanes imposed their tribute to be paid in Syluer, and		Tallow or fewer of the same nature than grease,	320.k
not in gold,	464.b	how to be ordered and prepared, ibid. which is the	ibid.
Cæsar Dictator furnished the solemnity of the cirque games		best,	ibid.
all with Syluer,	464.k	Tamaricus a riuer, the fountaine whereof foretell future	404.l
C. Antonius exhibited his plaies vpon a scaffold of Syluer,		enems,	188.k
ibid.		Tamarix or Tamariske, a plant,	ibid.
C. Caligula set for pageants oile of Syluer,	464.k	the sundry kinds and names thereof,	ibid.
Syluer tried out of gold ore,	467.b	Tamariske, how it is employed, 188.b. the medicinable vser	ibid.
Syluer found onely by digging pits, 472.i. cannot be tried		thereof, ib. the antipathie between it and the spleene, ib. i	188.k
without lead or lead ore,	472.k	why called the vnluckie tree,	188.k
Syluer mines found in all places, but the best in Spaine, ibid		Tamnacum, what herbe,	111.e
dampe in Syluer mines pernicious, but to dogs especially.		Tangle, a sea-weed, 437.e. See Reits.	
473.a.		Tanos, a bastard Emerald,	613.a
Syluer of two kinds, 478.g. how the best is knowne, ibid.		Taos, a pretious stone,	630.k
Syluer in plate painted by the Egyptians, and why, 478.l		Taperwort, an herbe. See Mullen and Longwort.	
Syluer images enamelled blacke by what meanes,	478.m	Taphiusus, a kind of Eggle stone, 590.b. why so cal-	
479.a.		led,	ibid.
Syluer for shift worne in stead of gold, by whom,	483.a. b	Taphisus, a citie in Egypt.	277.e
Syluer much used by fouldiours,	ibid. b	Tar, what medicinable vertues it hath, 183.e. how it is	ibid.
Syluer employed in base and vnclanelly uses,	483.b. c	made Palmipilla,	ibid.
Symbolum, what it signifieth,	455.b	Taracia Caia, a benefactresse to Rome, honoured with a	
Symmetrie obserued by Lyffippus the Imageur,	499.e	statue,	492.b
Symmetrie is a terme that cannot be expressed by a Latin		Tarentum the citie had the name for making the best can-	
word,	ibid.	dlesticke shankes of brasse,	488.l
Sympathies obserued,	175.f	K. Tarquinus Priscus, by what policie he kept his people	
Sympathie in naturall things,	35.c	at worke vnder ground about his vaults and sinkes,	
Symphonia, an hearb, 247.f. the description and vertues,		582.k. l.	
ibid.		K. Tarquinus Priscus his rampiers, a wonderfull piece of	
Symphitum Petreum, an hearb, 275.d. why called Sym-		worke, 582.b. the foundation of the Capitoll, and	
phytum, ib. why Petreum,	ibid.	the vaulted sinkes which he made, are admirable,	
Synaristense,	174.b	582.b.	
Syngenicus, a picture,	550.b	Tast in the month how to be recovered and seasoned, 148.g	
Synochitis, a pretious stone and the vertue of it,	631.a	183.e.	
Synodontes, certaine fishes,	629.e	Tast indiciall of bitter and sweet, why not in all persons a-	
Synodontites, a pretious stone,	ibid.	like,	136.b
Syrion or Syreion, the juice extracted of Lillie floures,	59.d	Tattam salt, most medicinable in what cases,	419.a
103.b. the vertues thereof,	ibid. c	Tauri flies, a kind of Beetles, 379.c. why so called, ib. they	
Syron what herbe,	247.a	be named also Pedunculi Terre,	ibid.
Syropicon, a kind of Samian earth, 559.d. the use in Phy-		Tauriscus of Tralleis, a grauer in marble,	569.b
sicke and how it is knowne,	ibid.	Tauriscus a cunning grauer in brasse,	483.c
Syrte, pretious stones,	629.e	Tauriscus a painter renowned for his worke,	550.i
Syffetieris, a magicall herb, and the effects thereof, 204.g		Tauriscus what herbe, 239.c. the description, ibid. 280.k. the	
why so called, ibid. why named Protomedin,	ibid.	vertues,	ibid. l
221.m. what it signifieth,	7.a		

T A

T Ables at Rome twaine, all of siluer,	481.e	Teats of milch-beasts sore, how to be healed,	148.g
Tada or Torch-wood, what vertues medicinable it		Teclithi. See Sponge stones, good to expell and breake	
hath,	148.g	the stone in mans body,	629.f
Tania, a sea-fish.	439.d	for all accidents of the Teeth, a remedy,	443.b
Talc, or glasse-stone, where it is found, 592.i. k. the na-		eye-Teeth of man or women dead, supposed to bee of great	
ture of it and manner of engendering,	592.l	vertue,	302.g
exceeding durable in all weathers,		Teeth how they may be made white, and so kept, 641. 129.a	
the use of Talc reduced into flakes and smaller pieces,		140.i. 160.i. 168.g. 326.i. 352.l.	
592.l.		Teeth corrupt, hollow, worne-eaten, and stinking, by what	
		meanes cured, 159.b. 168.k. 239.b. c. 252.h. 440.k	
		624.i.	
		Teeth how to be preserved from rostenesse and the wormes,	
		168.g. 190.i. 419.b.	
		Teeth rotten and hollow, how they may be broken and had	
		out by peccemeale,	179.c. 190.i. 239.e
		Teeth	

The Table to the second Tome

Teeth hollow and rotten, how they will fall out with ease,	138.b. 159.d. 179.e. 302.g. 376.i.k.l. 440.g.
Teeth hollow in paine how to be eased,	276.b. 440.k
Each of the grinders or great saw Teeth, how to be remedied,	440.b
Teeth loose by what means they may be set fast,	38.g.b
41.e. 70.g. 72.g. 73.e. 109.e. 124.b. 156.b.m. 159.b.c	
160.g. 164.l. 165.d. 184.b. 196.b. 197.a. 238.i. 239.b.c	
326.i.k.l. 351.b. 377.a. 440.i.	
Telephaneus, a famous Imageur and his works,	500.b.i
Telephium, an hearbe, thought to be Orpine,	290.l
the description and vertues,	ibid.
Telocardios, a pretious stone,	629.d
Telirrhizos, a pretious stone,	ibid.e
Telmessus, a superstitious city, addicted to soothsaying and magicke,	372.l
Tempest and thunder how to be raised,	315.c
Temple of Diana in Ephesus how long a building,	580.b.i
how it was founded and scitnat, ibid. the description thereof,	ibid.
Temple of Cyzicum and the description thereof,	581.a. by whom built, ibid.
Temple of Diana Anaitis, religious and sacred,	470.g
spoiled by Antonio the Triumvir,	ibid.
Temple of Peace built by Vespasian the Emperour, a stately piece of worke,	581.f
Temple of Fortuna Sera, built by Nero the Emperour, all of Phengites stone,	592.m
Tephria, what kind of Marble,	573.c
Tephritis, a pretious stone, 629.f. the description,	ibid.
Tepula, a water serving Rome,	585.d
Tercebinth or Terpentine tree, what medicinable vertues it hath,	181.c
Terpentinerosin is the best, 182.k. good to nourish the body and make it fat,	ibid.l
Terra Sigillata or Lemnia, 529.a. it was sealed in old time, and thereupon called Spyragus, ib. the medicinable vertues thereof,	529.a
Terraces, whose invention,	596.i
for Tertian agues, what remedies are convenient,	70.l
112.g. 122.k. 125.a. 126.k.l. 205.b. 223.d. 260.b.k	
287.c.d. 302.l. 309.a. 310.i. 391.c. 403.b. 424.i	
446.i.	
Testiculus Canis, an hearbe, 279.d. the description,	ib.
a double root it hath like to dog stones, ib. the different vertue and operation of these roots,	ib.
Tethes, what fishes, 442.k. their description and vertues medicinable,	443.c.d
Tetradoron, what kind of bricke,	555.d
Tetragnathum, a kind of Phalangium or venomous spider 360.k. the manner of their pricke and the accidents ensuing thereupon,	ibid.
Tetters called Lichenes, disfiguring the face, how cured,	156.g. 173.a. 183.c. 192.k. 244.l. m. 245.a.b. 377.c.c
556.l. 557.d. 560.b	
for other tetters, meet remedies, 36.g. 45.c. 49.e. 52.i. 56.k	
72.g. 75.b. 103.b. 124.b. 128.k. 142.l. 143.c. 144.l	
146.i. 157.e. 166.l.m. 168.k. 169.a. 172.i. 187.e	
252.b. 300.i. 413.b. 419.b.	
Tenica queen of the Illyrians, put Romane embassadours to death,	491.f
Tencor, a famous graner,	484.g
Tencuria, an hearbe, 247.b. a speciall hearbe for the liver, ib.	
Tencurian, an hearbe, why so called, 216.l. the description and vertues,	ibid.m

T H

Thalassiegle, what hearbe, 293.c. why called Potamantis, ib. the strange effects thereof,	ibid.
Thalassomeli, a pyrrup, how to be made, 413.d.e. the singular vertues thereof,	ibid.
Thalictum or Thalictum, an hearbe, 291.a. the description and vertue,	ibid.
Thapsia, an hearbe, the root whereof is medicinable,	245.b.
Theamides, contrary in nature to the Loadstone, and reiecteth yron,	587.c
Theangelis, a magicall hearbe, and the vertues thereof,	203.f.
Theatre of M. Scaurus, a most wonderfull and sumptuous piece of worke, 583.e. with the description thereof,	ib.
Thebas salt, for what infirmities good,	419.b
Thebes a city in Egypt built hollow upon vaults,	580.b
it had about it an hundred gates,	ibid.
Thelygonum, what hearbe, 257.d. the vertues that it hath,	268.b
Thelyphonon, what hearbe, 230.l. the description, ib. l.m. the reason of the name,	ib.
Thelypteris, a kind of Fearnie,	281.d
Themison, a professor in Physicke, 344.i. he wrote a Treatise in praise of Plantaine,	223.b
scholler to Asclepiades, ib. he reiecteth his masters Physicke and brought in new,	344.i
Theodorus, a writer in Physicke,	52.i
Theodorus, a most curious and fine Imageur and graner in brasse, 503.a. he cast his owne image and a coach, &c. most artificially,	ibid.
Theodorus one of the Architects that built the Labyrinth in Lemnos,	579.c
Theodorus, a painter, for what pictures hee was famous,	550.b.i.
Theombrotion, a magicall hearbe, described, 203.c. the nature thereof,	ibid.
Theomenes his opinion as touching Amber,	606.l
Theon, a painter, and his worke,	550.i.
Theophrastus his opinion of Amber,	606.k
Theophrastus wrote of floures and hearbes,	82.l
Theriace, a kind of grape, 148.i. the medicinable vertues thereof,	ibid.
Theriact, what troches, 357.e.f. how they be made, ib. their use in preservative antidots,	ib.
Therionarca, a magicall hearbe, the strange effects thereof,	203.d.
Therionarca, another hearbe described, 229.c. the reason of the name, and the effects that it hath, ib.	
Thesens, a picture of Euphranor his doing, compared with another that Parasus made,	547.d
Thesum, what hearbe,	127.e
Thesmophoria, what feast,	187.b
Thespiades the nine Muses wrought in brasse by Euthecrates,	500.g
Thespiades also engraven in marble,	570.g
Thessalie practised Magicke, wherupon Magicians were called Thessalians,	377.i
Thes-	ibid.

of Plinies Naturall Historie

Thesallia, a comedie of Menander, detecting the vanities of Magicke,	372.m
Thesalus, a Physician,	344.l
when he flourished,	ibid.
he altered the Physicke of his predecessors,	344.m
he inuenged openly against them,	ib.
he entuiled himselfe upon his tombe Iatronices,	345.a
Thesadictylos, a pretious stone,	930.b
Thesialis, an herbe,	287.a
Thiars, what month in Egypt,	286.g
against Thirstiness appropriat remedies, 43.b. 51.e. 60.b.i. 67.b. 70.g. 73.a. 120.b. 129.b. 171.c. 275.e	
624.g.	
Thlapi or Thlapi, what herbe,	291.a
of two kinds,	ibid.
their description, ib. why so called,	ibid.
Thorne Arabian, the medicinable vertues that it hath,	194.i.
Thracian, a pretious stone of three kinds,	629.f
Thracian stone soonest burneth by the meanes of water,	472.b.
Thrasillus, a writer in Physicke,	435.d
Three-leafe grasse. See Trefoile and Clauer.	
a fish bone sticking in the Throat, how to be removed,	302.l
328.k.	
Throat swelled, how to be assuaged,	158.i
Throat sore and exulcerat, how to be healed,	418.b. 328.i
378.g. 589.b. 609.b.	
for Throat infirmities generall remedies, 41.f. 59.e. 74.k	
120.b. 123.c. 157.b. 180.l. 245.b. 246.j. 317.a	
328.i.	
Thyallis, what herbe,	230.k
Thumb of K. Pyrrhus medicinable,	295.f
Thumb bending downward, a signe of approbation,	297.d
Thurianus, a famous potter,	553.a
he made the Image in the Capitoll of Iupiter in clay, ib.	
Thunderbolts do sent or smell of brimstone,	557.a
Thuscianica, what petie images,	494.g
Rome full of them,	ibid.b.i
Thyme of Arica is best, and therefore the hony from thence is chiefe,	90.k.l
Thyme of two kinds,	ibid.k
when it flourisheth, and how, ib.	107.c.d
by it is knowne what a yere will be of hony,	ibid.
the description and nature of Thyme,	90.k
the vertues,	107.d
running Thyme, 75.d. why it is called Serpyllum,	ib.
wild Thyme, where and how it groweth,	31.c.d
the properties that it hath,	75.d
Thymbram, what herbe, 233.e. the vertue,	ibid.
Thysium, what herbe, 233.e. the vertue,	ibid.
Thyestes, and their sundry kind,	98.g.b
Thyestes wild of two sorts,	78.l
Thyestes forbidden to be eaten by Roman Commoners, 11.d	

T I

Tiberius Caesar a grim sir, yet delighted in pictures,	527.f
See Tyberius,	4.i.k
Tier of Flax,	124.i
Tikes in dogs how to be killed,	387.b.o
Tikes highly esteemed by Magicians,	ibid.
their fooleries in the use of Tikes,	537.d
Timagoras, an ancient painter,	

Timaeus, a naturall Philosopher,	666.i
Timanthes, an excellent painter, 536.k. famous for the picture of Iphigenia in Aulides, ib. a man of fine conceit, ib.	
Timarete, a painresse famous for her penill, 534.g. 551.a	
her picture,	ibid.
Timomachus, a painter of good note,	548.k
his pictures,	ib.
Timotheus, a famous Imageur and cutter in stone,	568.l
rich Tinctures, which three be principall,	88.k
Tinesmus, what disease it is, 249.a. the remedies thereof,	44.i. 49.e. 55.c. 66.i. 70.b. 72.k. 73.d. 126.g. 143.f
172.b. 249.b. 278.l. 283.b. 318.k. 332.b. 359.c. 382.k	
413.a. 437.c. 443.d. 474.b. 520.i.	
Tin-glasse. See Leadwhite.	
Tin of diuers kinds,	517.c.d
sundry uses of Tin, ibid. how it is sophisticat,	ibid.
Tin Tertiarium, what it is, 517.d. the use thereof,	ib.
Tin Argentarium, what metall and how employed,	517.e
Tissue,	466.g
Tithymales, a kind of wild Poppie,	69.c
Tithymalus, what herbe it is, 251.e. the sundry names thereof, ib. what is practised with the milkie iuice of it,	251.e.f.
Tithymall of many kinds,	ibid.
1. Tithymalos Characias, 251.f. the description,	ib.
the iuice extracted, 252.g. the vertue,	ib.
2. Tithymalos, Myrsinites, or Caryites, 252.i. k. the reason of both names, ib. the dose thereof,	ibid.
3. Tithymalos Paralium, or Tithymalis, 252.l. the description and dose,	ibid.
4. Tithymalus Helioscopium, 252.l. the description, ib. the reason of the name, ib. m. the vertue that it hath, ib. the dose,	ibid.
5. Tithymalos Cyparissias, why so called, 253.a. the description and operation,	ibid.
6. Tithymalos Platyphyllos, 253.a. the reason of that name, ib. why it is also called Corymbites, ib. why named A-mygdalites, ib. the vertues,	ib.
7. Dendroides, Cobion, or Leptophyllon, the description and effects,	253.a.b
Titium, a man noted for being full of the foule Morphem,	403.a.
Tiwill in young children hanging forth, how to be reduced,	451.e. See Fundament.
Tlepolemus, a Physician,	67.a

T O

Toads or venomous frogs described, 434.l. why called in Latine Rubra, ib. wonders written of them, ib. a bone in one of their sides of great efficacie, ib. and 435.a	
how to be found,	434.m
against the venome or poison of these Toads, remedies, 119.a	
223.d. 231.a.b. 232.g. 300.k. 307.e. 431.f. 434.f	
435.b.c.	
Toads flax, an herbe, 286.l. See Oshris.	
Toadfooles, 7.f. 132.l.m. See Mastivomeris	
Tongue of man medicinable, and of power to auert ill fortune,	300.m
Tongue blistered and sore, how to be cooled & healed,	328.i
377.a.	
Tongue furred and rough how to be munnified,	59.e. 192.i
419.b.	
Tongue speechlesse how it may be recovered,	60.k
P p p 2	Tongue

The Table to the second Tome

Tongue palse how to be cured, 134.m
against an vntemperat and lying Tongue, a remedy, 316.b
Tonos in painting, what it is, 528.b
Tonsils, what they are, 135.d. inflamed or sore how cured, 183.c. 196.g. 197.d. 398.g.b. 437.d. 442.g. 507.f. 509.e. 510.i. 607.f. See Amygdales.
Tooth in children how to be eased, 105.b. 341.b.c.d. 376.b. 397.e. 398.g. 449.e.
Tooth or biting of man or woman mad, is venomous, 301.a. the same in some cases is medicinable, ibid.
in a fit of a Tooth one killed himselfe, 135.a
for the Toothache proper remedies, 36.g. 38.g.b. 40.m. 42.b. 44.g. 45.b. 47.b. 53.d. 56.i. 57.d. 62.f. 64.f. 65.b.c. 70.g. 72.g. 73.c. 74.g.k. 102.l. 109.e. 123.a. 128.i. 149.a. 161.e. 168.k. 169.a. 171.a. 178.g. 179.c. 180.k. 181.c. 184.g.b.l. 187.f. 190.g. 199.f. 201.f. 206.l. 218.b.k. 239.b.c. 252.b. 273.c. 274.k. 286.i. 302.g. 312.g.b. 316.f. 326.i.k.l.m. 327.a. 375.e.f. 367.g.h.i.k.l.m. 419.f. 422.g. 431.e. 432.i. 440.g.b. 510.b. 557.d. 589.c.
Topaze thought to be the Chrysolith, a pretious stone, 618.k. where it was first discovered, ibid.k.l.
it was first graced by queene Berenice, ib.
the image of queene Arsinoe, wife to Ptolomaeus Philadelphus, made of the Topaze, ibid.
Topaze of two kinds, to wit, Prasoides, and Chrysoperos, 618.m. it is filed, ib. it weareth with vse, ibid.
Topazes, an Island why so called, 618.l.
Tordile, what it is, 206.b.
Tordilion, what it is, 74.b.
Tortois liue both in land and water, 431.d.
their manifold vses, ibid.
Tortois of diuers kinds, ibid.
land Tortois, their flesb, bloud, &c. medicinable, 431.e.
their vrine also is effectiuall in Physike, according to the Magi, 432.g.
sea-Tortois medicinable, 432.b. 438.g.
their bloud, 132.e.
their gall, ib.
moore Tortois, described, with their properties, 432.l.
riuer Tortois, and their vertues, 432.m.
Tortois how to be dressed to cure the quartane ague, 433.a. how to be let blond artificially, 433.b.
a Tortoise foot in a ship hindered her course, ibid.
Tortois are medicinable, ib.e.
they be fishes seruing for roiet and wantonnesse, 451.b.
Tortoise-works when used at Rome, 482.g.
Touchstone, 477.f. where it is found, ibid.
how to be chosen and used, 472.g.
Tow of flax, what it is, 4.i. how employed, ib.
Toxica be poysons, what remedies against them, 119.a. 150.m. 177.d. 180.b. 323.d. 355.c. 364.b.
Toxicon, a kind of Ladanium, 249.d.
T R
Trachinia, an herbe, 291.c. the incredible effects which Democritus attributeth to it, ib.
Tragacantha, a great healer, 264.k.
Tragi, what Spunges, 423.b.
Tragion or Tragoneis, an herbe, 291.c. the description, ibid.
Tragopogon, an herbe, 291.d. the description, ibid.
Tragorionnum, an herbe, 64.b. the description and the vertues, ib.
Tragos, an herbe, 291.d. the description, ibid.
Transplanting cureth many diseases in herbes, 33.d.
Tranchises, what wine they may drinke, 155.d.
Treacle or Theriaca, the composition thereof, 79.b.
it was K. Antiochus his counterpoyson, ibid.
another Treacle or Theriaca reproued, and the composition thereof, 348.i.
Trebitus Niger, a writer, 428.i.
Trees how they proue harder to be hewed, and wax drier, 176.g.
Treasure at Rome of gold and siluer, 464.l.m. 465.a.
Trembling of ioints, or shaking of lims, how to bee cured, 49.d. 67.d. 141.b. 155.d. 162.b. 183.e. 219.d. 262.m. 283.f. 312.i. 359.c. 431.a. 447.a.
Trembling of the heart how to be cured, 48.b. 49.f. 174.i.
Tribuni arii, what they were at Rome, 459.f.
Trichies, a kind of Allum, why so called, 558.k.
Trich-madame. See Prick-madame.
Trichomanes, what kind of Maiden-haire, 127.a.
Trichrus, a pretious stone, 629.e.
the description, ib.
Tricocum, 126.g.
Tridachna, certaine Oysters, 437.b.
Triens, a small piece of brasse coine at Rome, 463.b.
the Triens or brasse piece of the Seruility at Rome, and the wonderfull nature thereof, 513.a.b.
fed with siluer or gold, ibid.
Trifoile or Trisolie of three kinds, 90.b.
the vertues thereof, 107.b.
supposed by Sophocles and others to bee a venomous herbe, 107.b.
not to be used but as a counterpoyson, 107.c.
Trigloss, a pretious stone, 630.i.
Tripatium, what, 554.g.
Triophthalmos, a pretious stone, 620.b.
Triorches, what herbe, 231.b.
Triorchis the Hawke defendeth the herbe Centaure Triorches, 221.c.
Tripoli or Goldsmiths earth, 530.l.
how it is coloured, and which is best, ibid.l.m.
Tripolium, what herbe, 247.e.
the description, ib.
the vertues, ibid.
Triptannum, what kind of Colewort, 26.i.
Triticum, the Wheat, whereto it serueth in Physike, 138.g.
Tritum, a kind of painters colour, 435.a.
the Price, ibid.
Triumphall Coronets, 115.f.
Triumphant capitaines, why they rode painted with Vermillion, 475.c.
Trochiskes of Elaterium, for what they are good, 36.g.
Trochiskes of Poppie, in what cases used, 68.g.
Trochiskes of Cyclamine, whereto employed, 234.b.
Trochiskes of Scammonie, 151.c.
Trochiskes Theriaci, 357.e.
Troæzen, a territorie, wherein the people be subiect to the gout, and the reason why, 403.b.
Trogu, a writer, 424.l.
Trossuli at Rome who they were, 461.a.
why the horsemen were so called, ibid.
Trough

of Plinies Natural Historie:

Trychnos, an herbe. See *Styracnos*.
Tryxalis, a kind of Insect, and the vertue thereof in Physicke, 381.b
 T V
Tuccia, the Nun or vestall votarie; put to prove her virginitie, 295.a. see carried water in a sene, 295.b.
Tullius Hostilius K. of Rome killed with lightning, and wherefore 295.c.d
 for hard Tumors and swelling bunches; appropriat remedies, 37.a. 44.k. 45.c. 64.b. 65.c. 66.l. 73.a. 77.f. 105.d. 108.g. 110.i. 111.a. 122.k. 123.c. 135.d. 136.k. 138.k. 141.c. 142.g. 146.i. 159.a. 160.i. 160.m. 166.i. 168.k. 174.i. 178.b. 181.b. 185.d. 186.i. 189.c. 193.d. 195.c. 218.k. 223.c. 236.j. 245.e. 250.e. 262.i. 337.b. 349.f. 392.b. 531.c. 448.g. 475.a.
 how such hard Tumors or schirrosities may be evaporated and dissolved, 139.f. 412.l. 419.f. 424.l. 560.b. 588.m.
Tungvi, a city famous for hot baths; naturall and medicinal waters, 403.b
Tunie fish salted, called *Cybinum*, medicinal, 434.b. 440.g.
Turbot fish medicinal, 444.g
Turbitum, what it is, 471.b
Turneps. See *Rapet*.
 Turning the body about, was the gesture of worshipping the gods, 297.c
Turnsoll, an herbe, 126.g. two kinds thereof; *Tricoccum*, *Helioscopium*, ib. the description, ibid.
Turpilus, an excellent painter and yet left handed, 526.b
Turquois or *Callais*, a pretious stone, 619.a
 the description, ib. which be the richest, ibid. a.c
 where they grow and how they be gotten, ib. b
 how the Indians wear them, 619.b
 what wherit them, and how they be falsified, ibid. c
Turrets and watch-towers raised of earth urse, most durable, 555.c
Turrets in *Cyzicum* rendering echoes, 581.c
Tusilago. See *Felsoot* or *Congwort*.
Tuzil, a god, or the protectour and patron of Rome city, not knowne and divulged, 296.i. the reason thereof, ibid.
 T Y
Tyberius Caesar, the first knowne sick of the collicke at Rome, 242.g. See *Tiberius*.
Tyllet. See *Linden tree*.
Tympanic what cureth, 219.d
Tyridates K. of Armenia, a famous Magician, 374.m
 he traueled out of his owne kingdom to Rome by land for to doe homage to Nero, 375.a. why he took not the sea, ib. he instructed Nero in the principals of art Magicks, ibid.
 V A
Valens Vectim a Rhetorician and Physitian, 344.l
 inward and over familiar with *Messalina* the emperress, ib. 347.e. he erected a new sect and schoole of Physicke, 344.l
Valerian, an herbe. See *Setwall*.
Valleare chaplets what they were, 115.e
Vanitie of Magicians reckoned up and derided, 302. per totam page, 310.b
Varro, a writer in Physicke, 42.k
 V E
Veientana, a pretious stone, 630.g
Veinis swelling called *Varices*, how to be eased, 123.e. 164.g. 257.e. 279.b. 334. 1385.e.
Veine broken by overstraining the voice or sides, how to be knit againe, 264.g
Velinus, a lake medicinal, 402.l
 against the danger of venomous arrowes, 216.a
 against the pricke and poison of venomous beasts, remedies, 41.f. 42.m. 43.e. 55.c. 57.a. 69.e. 113.c. 118.m. 127.f. 134.i. 155.f. 157.c. 173.d. 187.d. 231.c. 434.g. 435.c.
Venison, how the Frenchmen make more tender, 210.g
Ventoisies in stomacke, bellic, or elsewhere by what means discussed, 46.g. 50.g. 53.a. 55.b. 57.c. 61.b. d. 62.i. 63.a. 66.b. 67.g. 77.b. 102.g. 105.c. 106.l. 107.f. 108.m. 119.c. 121.e. 125.e. 129.f. 143.c. 153.c. 154.g. 160.i. 186.b. 187.c. 195.c. 196.l. 219.e. 237.a. 250.l. 253.c. 259.c. 277.a. b. 289.d. 290.k. 332.g. 359.c. 363.a. 383.b. e. 422.l. 431.a. 443.a.c.
Venus-haire, a pretious stone, blacke, and shining withall, 629.f.
Venus of *Apelles*, i. the grace of his pictures, which the Greekes call *Charis*, 563.f
Venus Palatina, who was call. d, ibid.
Venus, i. lone affection, how to be abated, 435.b. how to be forgotten for enen 450.b
Venus-Nauill, an herbe. See *Vmbilicis veneris*.
Venus, for lust to the act of generation, by what means incited, 38.l. 40.g. 43.b. d. 44.l. m. 52.k. 53.b. c. 55.d. 56.g. 67.b. 72.i. 101.e. 126.l. 128.k. 129.c. 130.f. 131.a. 144.k. 185.a. 189.a. 191.d. 200.g. 226.l. 256.b. 247.a. b. c. d. 279.d. 310.m. 312.l. 316.i. 341.e. f. 342.g. 359.a. 398.l. 399.a. b. 432.g. 435.a. 450.g. h. by what means repressed, 53.d. 56.g. 70.i. 113.d. 187.a. b. d. 189.a. 257.a. b. d. 279.d. 316.k. l. m. 341.i. 342.g. 398.l. m. 399.a. f. 404.b. 432.g. 435.a. 450.g. h. 518.l.
 condemned by *Democritus*, and wherefore, 304.l
 it helpeth some infirmities, 301.e
 moderately used it is wholesome, 304.l
Venus, an Image in Marble knowne by the name of *Aphrodite* is knowne at Athens, whose workmanship it was, 563.d
Venus, an Image wrought by *Agoracritus*, 565.e. by what occasion called *Nereusi*, ibid.
Venus of *Gnidos* naked, wrought in marble by *Praxiteles*, an admirable piece of worke, 566.i. a wanton fellow, enamoured on her, ibid. l
Venus vailed by him also made, 566.k
Venus naked wrought by *Scopas*, 567.e
Veratrum, what herbe, 218.g
Verbalium, an herbe. See *Longwort*.
Verbenas, what they were, 115.d
Verbenarius, what officer at Rome he was, ibid.
Verd de Azur, a painters rich colour, 528.i
 why called *Armenius Lapis*, 531.c. the price, ibid.

the use in Physicke,	ibid.	Calathian Violets,	ibid.
Ver de gris, what it is,	507.c. 508.g.	the medicinable vertues of Violets,	103.e
it is a cure,	216.i	Violet flowers best dried,	104.g
Verd de Terre, a painters colour,	528.i. See Borax.	Vipers venom, by what medicines it is killed,	64.b. 125.b
Verine of grapes,	146.g. the medicinable vertues,	173.a. 357.d. they yeeld remedies for their owne	357.d
146.m.		stings.	357.d
Vermillion the best is sophisticated with a second kind,	ibid.	Vipers how to be prepared for meat at the table, and to pre-	367.a
476.l. with Scyricum,	476.m	serue eye-sight,	367.a
which is the best Vermillion, and how knowne,	477.a.	decoction of Vipers, for what it is medicinable,	ib.
Vermilliana mineral,	454.g	Virginie or the contrary, what doth shew and bewray,	589.c
workmen about Vermillion, are masked, and why,	477.b	Virgo a water serving Rome,	408.b
in great account among the Romanes,	475.f. and A-	why so called,	ibid.
thiopians, ibid. when it came first into use,	475.e	Viria, what ornaments they are,	462.g
used in limning bookes and sepulchres,	477.c	why called Celice,	ibid.
what it is and how prepared,	475.e	Viriole, what ornaments they be,	462.g
the lustre of Vermillion hurt by Sun and Moone,	477.a	why called Celiberice,	ibid.
how that may be prevented,	ibid. b	Visage in some countries painted with the juice of certaine	114.l
Vermillion, a ranke poison, taken inwardly,	476.b. 477.e	herbes,	114.l
where the best Vermillion is,	476.i	Visage how to be preferred from Sunne burning,	351.e
Vermillion reckoned for a rich and lively colour,	528.i	Visage and countenance how it may be preferred youthfull,	65.e. 101.b
Vermillion how carefully it is looked unto, and sent sealed	476.k	Visage how to be cleansed from speckes, scales, freckles, red	76.b. 94.k. 103.d
from Sissopie to Rome,	476.k	pimples, and such like blemishes,	107.g. 108.b. 127.e. 130.l. 141.b. 145.b. 149.e. 161.b
Vermine, as ants, Cankerwormes, and such, how to be dri-	32.k	185.e. 186.l. 187.a. 197.d. 290.l. 308.g. 310.l. 314.k	328.g. 351.e
ven out of a garden,	42.k	how it may be made to shew fresh, fair, and lovely,	171.d
against all such Vermine and wormes,	487.d	341.c.	
Verres proscribed by Antonie the Triumvir for his faire	296.b	Visellus the Emperor his monstrous charger or platter of	554.b
Corinthian vessell,	487.d	earth, 554.b. his exccesse and vanitie that way, noted by	554.b
Verrus Flaccus, a Roman writer of Chronicle,	296.b	Mutianus,	554.b
466.g.		Vitex, what tree, and the vertues thereof,	187.a. why cal-
Verrucaria, an herbe, why so called,	126.b	led Agnos or Chast-tree,	ibid. b
Vervaine, an herbe, 228.g. the sundry names that it hath,	ibid.	Vitrioll natural, a mineral, 530.i. the wonderfull nature	530.i. how engendered, 510.l. 511.a. of two
ibid. much esteemed among the Romanes,	ibid.	kinds, and how engendered,	536.i
the diners kinds, ibid. the vanity of the Druides and	ibid. k. i	Vitrioll so astrigen, that it will bind Beares and Lions	511.d
Magi about this herbe,	380.l	mouths like a muzzel,	511.d
Vessell in the kitchen of silver, by Calvus the Orator his	489.b	Vitrioll or blacke, a painters colour artificiall,	528.k
daies,	428.l	Vitrioll Stalagmias, what it is, and why so called,	511.a
Vestras chappell at Rome covered with brasse,	489.b	Vitrioll Lencioin,	ibid.
Veterum Delubrum, a temple,	428.l	the best Egyptian Vitrioll, the medicinable vertues of it,	511.b.
Vettonica, an herbe. See Bconie.			

V L

Ulcers cancerous, corrosive, and eating deepe, as wolues and	40.g. 42.g. 45.b. c
such like, by what medicines cured,	46.i. 47.c. 49.a. 50.g. 56.k. 62.m. 70.l. 72.m. 76.k
101.e. 103.b. 106.j. 107.a. 122.b. 125.e. 138.m	
143.b. 144.i. 149.d. 150.i. 158.l. 160.b. 162.g. k	
163.b. 165.a. d. e. 168.l. 173.c. 174.k. 178.g. 180.g	
181.a. 183.d. 184.g. k. 188.b. l. 189.c. 190.k. 192.b. i	
193.d. 194.m. 197.d. 206.g. b. 207.b. 208.g. 263.d	
264.k. l. 265.e. 266.g. 285.c. 287.d. 300.i. 301.b	
302.b. 306.f. 320.b. 338.b. i. k. 393.d. f. 394.g. 418.k	
419.b. d. 422.b. 443.a. 447.e. 559.b. 510.k. 516.k	
519.d. 559.b. 559.e.	
Ulcers of inward parts by what meanes healed,	105.a
154.g. 317.d.	
Ulcers filthy full of dead flesh, and tending to mortificati-	43.c. 44.l. 69.c. 70.b
on, how to be mundified and cured,	105.c. 109.f. 121.d. 125.e. 128.g. 133.c. 147.b
159.a. b	

159.a. b. f. 161.c. 162.g. b. 165.d. 167.f. 171.e. 179.d	
183.c. 191.d. 193.d. 198.j. 264.i. k. 165.a. b. d. 278.b	
279.c. 282.b. 283.b. 287.e. 338.b. 447.f. 448.g. 470.k	
471.e. 510.k. 512.b. 588.g.	
Ulcers rheumaticke, and in moist parts how to be dried and	
healed,	69.e. 123.c. 143.f. 146.m. 147.b. 155.f. 174.l
184.g. 197.d. 265.c. 311.c. 422.j. 423.e. 441.b. 528.m	
531.c.	
Ulcers old and long festered, by what meanes cured,	129.a
138.k. 139.a. 220.g. 264.k. 265.b. 279.c. 350.g. 450.i	
588.g.	
Ulcers Cacoethe, morimals, and untoward to heale, by what	
meanes cured,	140.g. 174.b. 177.c. 190.b. 264.k
265.c. 281.f. 287.d. 338.k. 394.i. 449.b. 588.g.	
Ulcers desperat what medicines heale,	370.l. 394.b
Ulcers breeding vermin, how to be cleansed,	265.a. d. 393.e
447.f.	
Ullow Vlcers and fistulae how to be incarnat,	123.d. 124.l
140.l. 178.i. 191.a. 338.b. i. 393.d.	
Ulcers carbuncled, how to be cured,	45.e. 338.l
Ulcers in the head and privie parts, what meanes to heale,	591.d.
Ulcers in gristly parts what doth cure,	40.l
Ulcers occasioned by edged weapons, how healed,	338.l
Ulcers superficially healed, how to be opened againe, and so	189.b
kept,	303.b
Ulcers in bodies of children and old folke, what medecins do	303.b
heale,	303.b
Ulcers in shins and legs, what appropriat medecines they re-	338.b
quire,	143.c. 265.d. 338.i
Ulcers mortified, and growne to a gangrene, how to be reco-	
vered,	143.c. 265.d. 338.i
in Vlcers the excrecence of proud flesh, how to be consumed	
and taken away,	393.d. c. 419.e. 441.b. 509.e. 510.k
511.c. 519.d. 588.g.	
Ulcers incident unto Vlcers how to be assuaged,	393.c
callosities in Vlcers, how to be helped,	393.c. 394.g. i
rouses and eschares about Vlcers, what doth rid away.	394.f.
for all Vlcers in generall, good medecines,	393.f. 394.b
418.i. 440.d. 443.c. 559.b.	
Ulex, a shrub, receiving gold from the cloven mountaines,	
when they are scoured and washed with a current for	
the ore, 469.a. how to be ordered for the trying of gold	469.b
out of it,	124.i
Ulophonon, one of the kinds of the herbe Chamaleon, why so	21.e
called,	
Ulpicum a kind of Garlicke,	

V M

Umbilicus veneris, what herbe, 237.b. the description, ib.	
why called Corydedon,	ibid.
Umbrian earth or chalse, for what it is good,	560.k
V N	
Vncomes or dangerous felons, how brought to an head,	188.m. 500.b
422.b. how broken, ib. how cured,	
Vnction or anointing of the body, maketh for health,	303.d
Vnguis in a Rose floure, what it is,	102.b
Vngulus, what it is,	455.d

V O

Voice, by what medicines it is cleared and strengthened,	432.b. d. 441.b. 592.c. 643.f. 702.g. 120.b. 134.k
----------------------------------------------------------	----------------------------------------------------

141.b. d. 204.l. 256.f. 442.b. 518.m. 521.e.	
Voice helped by some waters,	403.e
what hurteth the Voice,	443.a
straining and exercising the Voice maketh for health,	303.d.
Volva, what it is,	132.b
Vomits what medicines do stay,	37.c. 41.b. 47.c. 52.g. 55.e
59.e. 60.k. 62.b. 66.i. 70.b. 75.e. 76.a. 105.f. 140.g	
146.l. 156.m. 164.i. 174.k. 206.l. 219.b. 248.b. 274.g	
275.b.	
Vomit by what means it may be provoked,	37.c. 40.g. 67.a
71.c. 105.d. 121.e. 128.i. 136.i. 173.b. 173.g. 204.m	
218.l. 248.g. 252.i. k. 253.c. 289.b. 291.b. 413.d. 442.b	
471.e. 507.a. 511.b.	
Vomitus to beane, cast, and vomit, how to be helped,	148.b
253.c. 155.d. 181.c. 184.b. 198.i. 219.e. 224.b. 247.a	
287.c. 303.d. 305.c. 312.b. 352.l.	
Vomiting was taught vs by dogs,	355.e
Vomits bitter how to be allaid,	148.g
Vomits ordinary, in cure of diseases, condemned worthily by	243.f
Asclepiades,	303.d
Vomit now and then is healthfull, but not usually,	412.l
Vomiting at sea for what it is good,	329.d. See Bloud casting and Reaching.
Vomiting of blond out of the stomacke, how to be cured,	
Vowels in the proper name of persons, significant for their	299.d
fortune, according to Rithmorum,	
	V R
Vranoscopus, what fish,	438.i
Vrecolaris, what herbe,	123.d
Vrchins head of singular operation to prevent shedding of	364.l
haire, and to recover it againe,	364.l
Vrchin, the strange nature both of him & his vein, 364.g. b	
see Vrchin medicinable,	436.b. 438.g. l
Vri what beast. See Buffles and Bisontes.	
Vrine and the speculation thereof obserued in the iudiciall	
part of Physicke,	306.k
of Vrine authors haue written,	ibid. g
Vrine white and cleare what it betokeneth,	ibid.
deepe coloured and yellow,	ibid.
red Vrine,	ib. 306.l
blacke Vrine,	ib.
full of Bubbles,	ibid.
full of froth,	ibid.
Vrine of a thicke substance, what it importeth,	ibid.
hypostasis of Vrine beanie, what it signifieth,	ibid.
hypostasis or sediment white, what it doth betoken,	ibid.
ibid.	
Vrine greenish, what it presageth, ib. pale,	ibid.
contents in Vrine, brannie, brackish, and clondie, what they	ibid.
presage,	
Vrine of children ought to be thin and watersish,	ib.
in others what it sheweth,	ib.
Vrine, what medecines do procure,	37.b. 39.a. b. 40.k
41.b. 45.f. 47.b. e. 51.f. 53.b. d. 54.b. 55.c. 56.i. 60.k	
62.i. 63.c. 64.k. 65.d. 67.b. 72.l. 73.d. 74.b. 75.e. e	
76.b. 77.b. e. 101.d. 102.g. l. 103.f. 104.i. 105.a	
108.k. 110.g. b. k. 111.b. 122.b. 124.g. 125.e. 127.f	
128.i. 129.d. 130.g. k. 131.a. 142.i. l. 150.g	
162.i. 164.i. 167.a. e. 171.a. d. 172.l. 174.i	
181.c. 182.m. 184.g. b. 185.e. 187.c. 189.d. 192.i. l	
194.g. 195.d. 196.g. 198.i. k. 199.b. 200.k	
249.e	